

WIDENING ACCESS TO SECONDARY EDUCATION IN AFRICA: WHAT LESSONS COULD AFRICA LEARN FROM EAST AND SOUTHEAST ASIAN COUNTRIES?

Asayo Ohba

Center for the Study of International Cooperation in Education
Hiroshima University, 1-5-1 Kagamiyama, Higashi-
Hiroshima, Hiroshima, 739–8529 Japan
ohba@hiroshima-u.ac.jp

Abstract: As many countries in sub-Saharan Africa meet universal primary education, widening access to secondary education is becoming an increasingly urgent issue for governments to address. How can African countries achieve mass secondary education available for all? This paper reviews experiences in East and Southeast Asian countries in widening access to secondary education and draws lessons that might be applicable to countries in sub-Saharan Africa. Firstly, the paper looks at macro factors that contributed substantially to the widening of access to secondary education in East and Southeast Asian countries. It then scrutinises micro factors to evaluate how it actually had influences on expanding access.

Keywords: access, secondary education, East and Southeast Asia

Abstrak: Apabila semakin banyak negara di Afrika sub-Saharan memenuhi pendidikan rendah universal, isu memperluaskan akses pendidikan menengah menjadi perkara penting untuk ditangani oleh kerajaan. Bagaimana Afrika dapat mencapai pendidikan menengah untuk orang ramai? Artikel ini meninjau pengalaman di negara Asia Tenggara dan Asia Timur dalam memperluaskan akses pendidikan menengah dan meneliti contoh yang boleh diaplikasi kepada Afrika sub-Saharan. Pertama sekali, artikel ini melihat kepada faktor makro yang menyumbang banyak kepada memperluaskan akses kepada pendidikan menengah di negara Asia Tenggara dan Asia Timur. Kemudian faktor mikro diteliti untuk menilai kesannya terhadap pengembangan akses.

Kata kunci: akses, pendidikan menengah, Asia Tenggara dan Asia Timur

INTRODUCTION

Expanding access to secondary education is becoming an increasingly urgent issue for many sub-Saharan African (hereafter, African) countries, often as a result of universalised primary education. However, in much of Africa, governments are faced with limited capacity in secondary schools to accommodate all primary school leavers. This is because much public investment has been devoted to the primary education sector in the past two decades, leaving the task of expanding the secondary education sector to local communities and

private sectors. Research shows that the number of non-government secondary schools is increasing in Africa, as a result of undersupply by the governments (Lewin & Sayed, 2005).

From the 1960s through the 1980s, East and Southeast Asian countries similarly experienced a need to expand secondary education, primarily because of the rapid attainment of universal primary education (World Bank, 1993). To meet the high demand for secondary education, governments such as South Korea, Taiwan, Hong Kong (China), Malaysia and Singapore implemented several initiatives to widen access to secondary education. Such initiatives, coupled with macro factors in socio-economic and political contexts, enabled these governments to expand the secondary education sector (Morris & Sweeting, 1995).

This paper looks at macro and micro factors that enabled East and Southeast Asian countries to expand secondary education. In this paper, macro factors refer to social, political and economic contexts that contributed to the expansion of secondary education. Micro factors, on the other hand, refer to educational policies and policy interventions in widening access.

In the following section, the paper reviews the macro factors that contributed to the secondary education expansion in East and Southeast Asian countries. Successful secondary education expansion does not take place as a result of education reform per se. It needs to be placed within wider social, economic and political contexts. Thus, the section looks at the economic, social and political conditions that contributed to the expansion of secondary education. The third section scrutinises micro factors within the educational context. Specific intervention policies that were taken in some countries are discussed in this section. The last section draws conclusions and discusses policy implications that might be applicable to some African countries in which the expansion of secondary education is imperative.

REASONS FOR SUCCESSFUL SECONDARY EDUCATION EXPANSION: MACRO PERSPECTIVES

Economic Growth with Shared Distribution

The economic growth in East Asia was a driving force for the expansion of access to secondary education. Morris and Sweeting (1995) state that in East Asia a significant change in the economy preceded the expansion of secondary education and that economic development helped encourage such progress. Several studies support the assertion that economic development fuelled

education expansion in Hong Kong (Sweeting, 1995), Singapore (Gopinathan, 1995), Taiwan (China) (Young, 1995) and South Korea (Ihm, 1995). Because economies in these countries grew, people's living standards and aspirations increased. Consequently, the governments' increased revenues enabled the countries to allocate more finances to the secondary education sector (Morris & Sweeting, 1995).

Economic growth in some East and Southeast Asian countries from the 1960s to the 1980s was impressive. The average annual growth rate of gross national product (GNP) per capita between 1965 and 1986 was 7.6% in Singapore, 6.7% in South Korea, 6.2% in Hong Kong and 4.3% in Malaysia, compared with less than 2.0% or negative growth in most African countries, with the exceptions of Lesotho, Botswana, Cameroon and the People's Republic of Congo (now Congo-Brazzaville)¹ (World Bank, 1988: Table 1).

However, it is also important to note that economic growth alone is an insufficient prerequisite for poverty reduction. Poverty was successfully reduced in East Asia due to economic growth in addition to equitable income distribution (World Bank, 1993; Watkins, 1998; Fredriksen & Peng, 2008; Little & Green, 2009).

Watkins' (1998) study shows that during the 1970s and the 1980s, for every US dollar generated in growth, the richest 10% of the population of Indonesia received only 25 cents, while in Vietnam it was less than 30 cents. In contrast, the richest 10% of the population of Kenya received more than 45 cents of every growth-related dollar, compared with the poorest 10%, who gained less than 1.5 cents. Watkins states that the success of poverty reduction in Malaysia was due to improved income distribution, whereby the income share of the poorest 20% rose by a third between 1973 and 1987. Thus, as a result of an increase in wages among income-poor families, access to education became more equitable (Watkins, 1998). Perhaps unsurprisingly, it is estimated that today the African region experiences some of the highest income inequality in the world (Fredriksen & Peng, 2008).

Between 1981 and 2005, the greatest reduction in poverty took place in East Asia and the Pacific, where the proportion of people living on less than \$1.25 a day (2005 PPP²) decreased from 78% to 17%. Much of this contribution was from China where the poverty rate declined from 84% to 16%; leaving 627 million fewer people in poverty during this period (World Bank, 2008: 10). A considerable reduction in poverty occurred in South Asia as well, mainly due to contributions by India.

In contrast, there have been few changes in Africa in terms of the proportion of individuals living in poverty. In 1981, 53% of the African population was living in poverty; this increased to almost 59% by 1996. Overall poverty rates in the African region then decreased to 51% in 2005. Put plainly, one in two people in Africa are living in poverty today. Moreover, the real numbers of poverty-stricken individuals in the region increased by 83% from 212 million in 1981 to 388 million in 2005. As a result, although the actual numbers of people living in poverty are highest in South Asia—mostly India—Africa stands at the highest rate of poverty in terms of the relative proportion of population living in poverty (World Bank, 2008).

Many studies suggest that wider income inequality in initial distribution tends to reduce the impact of economic growth on poverty reduction (Ravallion, 1997, 2004; Watkins, 2000; Hanmer & Booth, 2001; Klasen, 2004; World Bank, 2005). Because of household poverty and the high direct and opportunity costs of schooling, many children from low-income families in Africa are unable to attend school (Colclough, Al-Samarrai, Rose & Tembon, 2003). Thus, research suggests that increased household income through shared distribution is a necessary condition for low-income families to keep their children in school, particularly past the primary level.

Demographic Change

An equally important contributory factor in the expansion of secondary education in East and Southeast Asia was a drop in the birth rate and subsequent decline in the school-age population (World Bank, 1993; Morris & Sweeting, 1995). Between 1965 and 1990, it is estimated that the percentage of the population in the 0–14 age group declined from 41 to 22 in Hong Kong, 43 to 26 in South Korea, 46 to 37 in Malaysia, and 44 to 22 in Singapore, compared with an increase from 48 to 49 in Kenya, and 43 to 46 in Nigeria (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2009).

Indeed, it is estimated that between 1970 and 1975 the average total fertility (expressed as the average number of children per women) in Africa was estimated to be 6.7, followed by 5.0 in Latin America and the Caribbean, and by 4.8 in Asia (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2009). In 2005 and 2010, the fertility rate in Africa is projected to be 4.6, compared with a sharp decline to 2.3 in Latin America and the Caribbean and 2.4 in Asia (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2009).

Demography has a critical implication as to whether governments have the capacity to implement fee-free education. Experiences in East Asia reveal that because the enrolment rate of primary school-age pupils started declining in Singapore in the 1970s, secondary schools were able to accommodate virtually all primary school graduates (Boon & Gopinathan, 2006). In Thailand, excess material facilities and teachers from primary schools became available as a result of the reduced primary school-age population, which enabled the government to expand lower secondary education (Benveniste, 2008). This change in demography, together with increased government revenue from economic growth, enabled the governments of East Asia to invest more resources per pupil, even though education investment as a proportion of gross domestic product (GDP) remained constant (World Bank, 1993).

The fact that a large proportion of the population in Africa is not economically independent has serious implications for educational financing. The United Nations estimates that the school-age population is increasing in some African countries. In 2005, the average percentage of children in the 0–14 year age group of the populations in the region was about 43%, compared with 17% in developed countries and 31% in other less developed regions (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2009).

Although it is projected that this 0–14 year age group in Africa will decline to 27% by 2050, significant population growth is expected in Chad, the Democratic Republic of the Congo, Niger, Somalia and Uganda, where at least a tripling of the population is projected between 2008 and 2050 (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2009). It is inevitable that in countries where government revenue from taxation is limited due to large dependent populations, the increase in school-age children threatens the financial sustainability of universal education (Bray & Bunly, 2005).

Political Stability through Education

In addition to the above-mentioned factors, no country's social and economic situation is likely to develop without peace and stability (Little & Green, 2009). Successful economic development in East Asia was due in part to political stability, and education was the driving force behind it (Morris & Sweeting, 1995).

Singapore, for instance, did not gain independence from the United Kingdom until 1965. During the British colonial regime, a liberal policy on immigration

promoted immigration from South Asia and China, which created a diverse and plural society in Singapore (Gopinathan, 1995). A lack of integrated policies on education, however, split communities along language lines – those who spoke English and those who did not. Consequently, this language divide created hostility and fomented anti-government activity (Gopinathan, 1995).

In 1959, Singapore was given self-government status; it became fully independent in 1965. The government immediately focused on education as a means of unifying its society. To mitigate hostility in communities, a bilingual policy was introduced in primary schools in 1960 and in all secondary schools in 1966.

Under this policy, pupils learned English as an instructional language and an additional language (Chinese, Tamil, Malay, etc.) to preserve individual identity and culture. The Singaporean government believed that its bilingual policy would achieve social cohesion and national unity. It also thought that an increased English speaking population would make the country the world's marketplace (Boon & Gopinathan, 2008).

Similarly, education in Malaysia is seen as a means of national integration and unity. Since Malaysia is one of the most multiethnic and multireligious countries in Southeast Asia, an instructional language for teaching has been a part of the political agenda since its independence from the United Kingdom in 1963. Because the majority of the economically backward population were Malays, with a minority of well-off Chinese and Indians, the government sought to correct the socio-economic backwardness of the Malays through education (Brown, 2007). For example, English language tuition was phased out of the educational system, and the Malay language became the only instructional language in state-assisted primary and secondary schools (Brown, 2007).

Education in Taiwan was not an exception to this trend. The country used education as a tool for political stability and social cohesion. Young (1995: 123) illustrates the case of Taiwan as follows:

Taiwan's school system is subject to the state's control, and functions as a mechanism for political socialization. On the one hand, this device serves the state's interest to the extent that it has strengthened the regime's authoritarian rule through ideological control. On the other hand, the resultant long-term political stability, among other factors, has sustained economic growth.

Further, Lee (1995) argues that while education in Japan was a contributory factor to rapid economic growth after World War II, it played a more fundamental role in "reinforcing and sustaining a cultural system which is conducive to development, namely, fostering national consciousness, group spirit, perseverance, egalitarianism, meritocracy, and so forth" (p. 38). Bray (1995) also notes that education in Macao was a driving force in equipping people with skills, as immigrants from neighbouring countries were often better educated, threatening the indigenous population's economic activities. Leung (1995) states that the Chinese government did not adopt the concept of 'human capital' in education until 1978, when it was deemed to be an appropriate ideological instrument for political stability and social cohesion.

In summary, Morris and Sweeting (1995) point out that many East Asian countries were threatened by neighbouring states in terms of social, economic and political stability and that education was used as a means to "reinforce the significance of national unity" and to "prepare for economic well-being" (p. 244). Little and Green (2009) stress that successful globalisation and economic growth in East Asia was due to education, which was promoted as a means of social cohesion and national unity.

These macro factors are important when we come to examine the micro factors that enabled the expansion of secondary education in these countries.

REASONS FOR SUCCESSFUL SECONDARY EDUCATION EXPANSION: MICRO PERSPECTIVES

Universal Primary Completion

Some successful experiences of East and Southeast Asian countries in widening access to secondary education show that ensuring universal primary completion before shifting the government's attention to the secondary education sector was a contributory factor.

For instance, under Japanese rule in South Korea, only 30% of those aged between 6 and 11 years were enrolled in primary school. In Sohn's study (as cited in Ihm, 1995: 129), during this period, Japanese colonial policy limited children's access to education and banned the use of the Korean language in schools, which contributed to a greater than 90% illiteracy rate among school-age children.

After liberation from Japanese colonisation, the Korean government first focused on the expansion of primary education by prioritising government subsidies for

low-income families and regions (Lee, 2005). This policy gradually expanded the scope of its benefit to include the whole country. Consequently, by 1959 primary education in South Korea was free and compulsory for all children (Lee, 2005). It is worth noting that the government did not implement free and compulsory primary education in a single year. Instead, it spent 6 years covering all regions of the country through phased implementation. Available government statistics for the period 1970–1975 show that the country had achieved universal primary completion by the period. They reveal that approximately 1 million children were enrolled in the first grade of primary school in 1970, 48.2% of them girls. Five years later, about 95% of the boys and 94% of the girls reached the final grade of primary school (Table 1). The high retention rates contributed to universal primary completion in the country.

Table 1. Retention patterns from the first grade to the last grade of primary by sex in South Korea, 1970–1975

	Primary						Actual primary enrolment
Year	1970	1971	1972	1973	1974	1975	
Grade	1	2	3	4	5	6	
Boys	1000	978	--	960	955	947	530,848
Girls	1000	983	--	962	953	940	493,581

-- Data not available

Source. Republic of Korea (1970–1975)

Abolition of the Entrance Examination

Evidence suggests that the abolition of secondary school fees is not sufficient for expanding access. In fact, it seems that a primary leaving examination has a vital role in widening access. South Korea, for instance, managed to expand secondary education without the abolition of school fees. Instead, it rescinded the entrance examination for admission to secondary school.

Due to increased primary enrolment after the attainment of universal primary education but limited capacity at the lower secondary level, in South Korea, the entrance examination for lower secondary school became highly competitive, and many primary pupils were forced to engage private tutors to pass the entrance exam and thus secure places in secondary school. Therefore, as a result of the intensified rote learning and 'exam hell', the government abolished the entrance examination in 1968 (Lee, 2005), thus allowing all primary school graduates access to lower secondary education³, which seems to have had substantial effects on expanding secondary school access.

Table 2 shows the trends in transition to lower secondary education between 1969 and 1978. As the statistics show, there is a steady improvement in the transition rate. Indeed, within a decade the transition rate improved from below 60% to above 90%. Although the steady improvement in transition cannot be directly correlated to the removal of the entrance examination, one can infer from the evidence that the abolition of the examination helped more students continue their education beyond primary school.

Table 2. Transition from the final grade of primary to the first grade of lower secondary education in South Korea, 1969–1978

Year	Primary school graduates	The first grade of lower secondary enrolment	Transition rate (%)
1969	765,064	446,445	58.4
1970	799,969	510,756	63.8
1971	868,164	613,359	70.7
1972	877,750	609,916	69.5
1973	942,343	660,155	70.1
1974	945,768	687,254	72.7
1975	935,840	704,830	75.3
1976	964,372	753,292	78.1
1977	891,582	764,492	85.7
1978	877,207	798,802	91.0

Source. Republic of Korea (1978: Table 9)

While the abolition of the entrance examination enabled all primary graduates to attend lower secondary schools, the issue of limited capacity remained unresolved. Due to the scarcity of secondary places, the South Korean government introduced a 'double shift' use of classrooms, leading to an average of 70 pupils per class. Thus, it should be emphasised that the government was only able to expand the number of pupils attending lower secondary school at the expense of educational quality. Lee (2005) explains the prioritisation of access as follows: "We had tried to expand access to elementary and secondary education at the cost of quality because of limited financial resources to expand the capacities" (p. 10).

In fact, the gross enrolment ratio (GER) in lower secondary education improved from less than 40% in 1965, to over 53% by 1970 and to 96% by 1980. It is notable that free and compulsory education was extended from the primary to the lower secondary level in 1984, initially in rural areas and in all regions by 2004 (Lee, 2005). Therefore, the surprising fact is that South Korea achieved universal lower secondary education before the introduction of a free and compulsory policy to the sector. Moreover, a further analysis of the government statistics

shows that over 95% of the pupils enrolled in lower secondary school in 1973 reached the final grade in 1975 (Republic of Korea, 1973; 1974; 1975). This reveals the fact that the rapid expansion of lower secondary education was concomitant with the high level of retention rates.

Expansion Through Private Institutions

In addition to the government's abolition of the entrance examination, the role of private institutions in expanding the secondary education sector was an important factor in South Korea as well as elsewhere in East Asia. Available South Korean data for 1978 show that as many as 36% of lower secondary schools were private, and 39% of pupils in lower secondary education were enrolled in private schools (Republic of Korea, 1978). These statistics show that the country would have been unable to achieve the high GER at the secondary level if private institutions had been unable to fill the supply gaps.

Other East Asian countries also experienced rapid increases in secondary enrolment with substantial support from private institutions. Before economic development, the expansion of secondary education in Hong Kong was supported by private institutions. From the 1940s to the 1960s, the government of Hong Kong deliberately held back the expansion of secondary and tertiary education to prioritise primary education (Sweeting, 1995). The expansion of secondary education was therefore largely met by private institutions.

In Thailand, more than half of secondary school students in the 1960s were enrolled in private schools. This was due primarily to a shortage of public secondary schools available to all primary school leavers (Nitungkorn, 1988). In fact, there were no secondary schools in rural villages, and most secondary schools were concentrated in large districts (Nitungkorn, 1988). Given the circumstances, the government decided to establish secondary schools at the tambon⁴ level. Because of the increased number of public secondary schools, more students have been enrolled in public secondary schools than private ones since the 1970s.

These examples show that private institutions had an important role in expanding access to secondary education, particularly at the initial stage of secondary education sector development. Because of shortages in government secondary schools, private institutions helped to accommodate primary school leavers who could not have otherwise enrolled in secondary school.

Pro-Poor Education Policies and Programs

There were other government interventions that enhanced access to lower secondary education in East and Southeast Asia and pro-poor programs were widely used from the early stages of education expansion. In rural Thailand, physical access to lower secondary education was a significant issue faced by many primary school leavers. To address this problem, in 1987, the government established lower secondary classes in primary schools and made tuition free. Because lower secondary schools were thereby established within easy reach of the majority of rural residents and the cost of transportation was kept to a minimum, households were willing to enrol their children in school. Within 8 years, the extended primary schools amounted to 22% of the total primary schools in the country and accommodated one in five pupils at the lower secondary level (Benveniste, 2008).

However, gaining access to lower secondary education remains a substantial challenge for low-income families in Thailand. Households are still required to meet expenses for school-related costs such as uniforms, textbooks and transportation, in spite of 12 years of free and compulsory education. Because these costs are often beyond the household budget of low-income families, the government provides a comprehensive set of benefits for these families (Benveniste, 2008). These include scholarships and bicycle lending programs for pupils who live in remote areas (at least 3 kilometers away from school) and whose annual family income is less than 300,000 baht (Benveniste, 2008). Consequently, although educational gaps between the richest and the poorest persist, more children from low-income families are attending secondary school.

The Thai government has also addressed the requirements of disabled and needy children in its expansion of secondary education. Currently, 43 specialised schools serve more than 15,000 disabled pupils, and an additional 4,000 integrated schools bring over 150,000 special needs children into mainstream education (Benveniste, 2008). Furthermore, the government supports 45 welfare schools, at which 40,000 needy children receive a fully subsidised education. These pupils include members of certain ethnic minorities, street children, those living with HIV and others caught in difficult circumstances (Benveniste, 2008).

In Bangladesh, the Female Secondary School Stipend Program is recognised as being one of the most successful programs in increasing girls' access to secondary education since the 1990s. It was started by a local non-governmental organisation (NGO) with financial assistance from the United States Agency for International Development (USAID) and was later taken over by the government for implementation nationwide. It targets girls in lower secondary (grades 6–10)

and upper secondary (grades 11–12) school. To become a beneficiary, a girl must attend the school for at least 75% of the school year, obtain at least 45% in her assessments and examinations and remain unmarried (Mahmud, 2003).

The effect of this program is remarkable. In 1990, the secondary education GER was 26% for boys and only 14% for girls. However, by 2000 it had increased to 45% for boys and 47% for girls (UNESCO, United Nations Educational, Scientific and Cultural Organization, 2003: Table 7). In fact, 53% of the pupils attending secondary school in 2001 were girls (Mahmud, 2003). Although other factors might also have influenced the substantial increase in girls' access to secondary education, there is little doubt that the female stipend program is a significant contributory factor in the rapid increase of girls' access to secondary education and the narrowing of gender disparity.

In Cambodia, the *Education Sector Performance Report 2004* reveals that while lower secondary education enrolment increased by 62% between 2000 and 2003 and that the GER increased from 27% to 39% during the same period, low transition rates persisted in rural and remote areas (Kingdom of Cambodia, 2004). Insufficient lower secondary schools in these areas and direct and opportunity costs associated with schooling have prompted the government to plan the implementation of (a) the selective introduction of basic cycle schools to optimise the use of existing primary school facilities (b) the construction of at least 800 facilities accommodating grades 7–9 (lower secondary) in underserved communes and (c) the selective expansion of scholarships for girls from poor families and ethnic minorities (Kingdom of Cambodia, 2004).

Moreover, the government provides a scholarship program for girls and ethnic minorities for the transition from primary to lower secondary education (grades 6–7). In so doing, it aims to enhance equal access for girls and ethnic minorities from poor rural and remote provinces in the process of transition. The scholarship covers expenses for lower and upper secondary education and supports those who are enrolled in lower secondary school but are at risk of dropping out due to financial constraints (Velasco, 2004).

These examples from East and Southeast Asian countries suggest that pro-poor programs targeting those members of the population who have been identified as being at risk not to graduate and proceed to secondary education have positive outcomes in enhancing enrolment. In particular, the cases in Southeast Asia demonstrate that governments have targeted vulnerable groups, such as the poor, females, the disabled and ethnic minorities, using various methods to enhance their access to secondary education. Such intervention policies might be more

cost-effective in terms of increasing access to vulnerable pupils than introducing fee-free education for all.

Expansion of Technical and Vocational Education

Following economic growth and increased government revenue, East Asian states became capable of financing secondary education, particularly through technical and vocational programs, which are often deemed to be more expensive to facilitate than purely academic courses.

Taiwan experienced its first peak of economic growth between 1964 and 1973 (Young, 1995). When the country's economy switched from labour-intensive and low-skilled industry to sophisticated, high-skilled and technology-based industry, the government also expanded technical and vocational education to meet industrial needs for skilled manpower (Young, 1995).

This particularly affected upper secondary schools, where traditionally the main focus was on academic knowledge. To increase the number of pupils graduating with technical and vocational skills, the government enhanced vocational training facilities and multiplied the enrolment by limiting available places in academic schools (Young, 1995).

Consequently, while there were equal numbers of pupils learning at academic and vocational schools in 1970/1971, the proportion of pupils learning at vocational institutions was double the number of pupils in academic schools by 1991/1992 (Table 3). It is believed that such government intervention in technical and vocational education was effective in expanding industrial economies, at least in the early stages of Taiwan's economic development (Young, 1995).

Table 3. Trends in academic upper secondary education and vocational training in Taiwan, 1970–1992

School year	Academic upper secondary		Vocational school		Ratio (1) : (2)
	No. of schools	No. of students (1)	No. of schools	No. of students (2)	
1970–1971	185	178,537	146	175,650	1 : 0.98
1971–1972	199	190,798	168	198,969	1 : 1.04
1976–1977	195	181,933	178	296,493	1 : 1.63
1981–1982	180	182,391	196	374,206	1 : 2.05
1986–1987	175	200,599	204	437,924	1 : 2.18
1991–1992	177	218,061	212	475,852	1 : 2.18

Source. Young (1995: 117, Table 4)

Similarly, the Government of South Korea focused on technical and vocational education when its economy shifted its concentration to capital-intensive industries in the 1970s. Responding to the high demand for mid-level technicians, the government expanded vocational training institutions to increase the supply of qualified labour. In fact, while the number of secondary schools increased by 31%, from 1,909 in 1965 to 2,497 in 1970, vocational institutions multiplied by 54%, from 312 to 481 over the same period (Republic of Korea, 1977). Indeed, it is widely recognised that in the first period of economic development in the 1960s and 1970s, government intervention in technical and vocational education was effective in accelerating the country's economic growth (Ihm, 1995).

As in South Korea and Taiwan, the government of Singapore also intervened extensively in the expansion of technical and vocational education when the country's economy switched its focus to skilled-labour industries. By 1968, the government had recognised that the education system could not supply sufficient numbers of the skilled workers required by the labour market (Boon & Gopinathan, 2006). To respond to this challenge, a Technical and Education Department was established in the Ministry of Education in 1968 (Boon & Gopinathan, 2006).

The government also established technical and vocational institutions and trained teachers to meet the growing demand for instructors. Moreover, technical subjects were made compulsory for all male pupils at the lower secondary level from 1969 and female pupils were given the option of choosing between technical subjects and home economics. As a result, whereas only 12.5% of secondary school pupils had been learning in technical and vocational streams in 1968, this proportion had increased to about 20% by 1976. Thus, this strong government intervention in technical and vocational education contributed to the supply of skilled labour for the country's industrial economy (Boon & Gopinathan, 2006).

Lower Unit Cost Per Pupil

Financing education is one of the major challenges in many African countries. This sub-section compares the financing of secondary education between Africa and Asia in general.

As discussed previously, due to the large dependent population in Africa, securing government revenue is a Herculean task. Bray and Bunly (2005: 87) note:

Countries which have vibrant economies, strong infrastructures for collecting taxes, and a willingness in the general population to pay high taxes can certainly support not only fee-free basic education but even fee-free higher education.

However, they point out that this is not the case for countries whose economies are generally weak; there is no strong infrastructure for state revenue generation, and the population is not willing to pay high taxes. Thus, the financial challenge for the provision of education in African countries is far more severe than it is in other regions.

Given the fact that those who can access higher education in Africa are more likely to be children from well-off families, there is a common understanding that while governments should substantially support the financing of basic education, in the case of higher education these expenses should be met by households whose children benefit from the service.

However, in the 1980s several studies by the World Bank noted that some African governments had heavily invested in higher education, yet many primary school-age pupils were not enrolled in school (Mingat & Psacharopoulos, 1985; Mingat & Tan, 1985a, 1985b; Jimenez, 1986; World Bank, 1986, 1995; Psacharopoulos, 1990).

Table 4 illustrates public spending per pupil in primary and secondary education in 1999 in selected countries, expressed as a percentage of per capita GDP. As can be seen, the proportion of current public expenditure per pupil ranges from 0.07 times GDP per capita in Latin America to 0.15 times GDP per capita in Francophone Africa. However, in Anglophone Africa, public spending on secondary education is more than 6 times higher than on primary education, compared with only 1.6 times higher in Latin America.

Table 4. Current public expenditure per pupil in selected country groups, 1990s

	No. of countries	% of per capita GDP		Proportion 1:(2)
		Primary (1)	Secondary (2)	
Francophone Africa	15	0.15	0.49	1 : 3.3
Anglophone Africa	9	0.10	0.66	1 : 6.6
Latin America	10	0.07	0.11	1 : 1.6
Asia	8	0.08	0.19	1 : 2.4
Middle East and North Africa	6	0.11	0.30	1 : 2.7

* Data for the year 1999
 Source. World Bank (2004: 69)

Research that looked at unit cost by different levels of education finds that in countries where the secondary GER is less than 40% the secondary to primary unit cost ratio in 1995 was greater than 3:1 (Lewin & Caillods, 2001). In contrast, in those countries where secondary education was almost universal (above 90%), the secondary to primary unit cost ratio was as low as 1.3:1.

Lewin (2007) suggests that no country with a secondary to primary unit cost ratio of more than 3:1 succeeds in universalising secondary education. Because secondary school teachers expect higher salaries than their colleagues in the primary sector and secondary education requires advanced facilities and equipment, unit costs for secondary pupils are much higher than those for primary pupils. This is a critical aspect in the universalisation of secondary education because government budgets in many African countries are already overstretched in providing adequate numbers of schools and employing enough qualified teachers to staff them.

A study that looked at the reason for successful economic growth and poverty reduction in East Asia found that although increased demand for education required hiring more teachers, the wages of teachers tend to rise at a slower pace than average (World Bank, 1993). Bray (2002) also states that a larger proportion of the government expenditures for education as a percentage of GDP does not necessarily mean greater financial commitment of the government to education. The reason for a relatively larger proportion of public expenditure on education as a percentage of GDP is often because of a relatively lower ratio of teacher salaries to the national expenditure in Asia than in Africa (Bray, 2002). Thus, this enabled the governments in Asia to keep public expenditures on education relatively low.

CONCLUSIONS AND DISCUSSION

Discussion in this paper based on East and Southeast Asian country experiences reveals that both macro and micro factors are imperative in widening access to secondary education.

The analysis of the macro factors in social, political and economic contexts reveals that economic growth with equitable income distribution enabled households to put their children into schools. It also shows that economic growth together with a decline in the school-age population enabled the government to expand access and allocate more resources per pupil. Moreover, governments in these countries utilised education as a means of encouraging national unity for

social, economic and political stability. These factors, therefore, significantly contributed to secondary education expansion in the region.

Simultaneously, governments of East and Southeast Asian countries addressed specific intervention policies in secondary education expansion. The literature review revealed that each country had different intervention policies to ensure transition to lower secondary education by poor and vulnerable pupils. Such intervention strategies include (a) ensuring universal primary completion (b) the abolition of an secondary school entrance examination (c) partnership with private institutions (d) implementation of pro-poor programs, such as the establishment of lower secondary schools alongside primary schools, the provision of stipends and scholarships, the loaning of bicycles, etc. (e) the expansion of technical and vocational training and (f) relatively lower unit cost per pupil at the secondary education sector level. These specific intervention policies coupled with social, economic and political contexts enabled the countries in the region to expand access to secondary education.

The study does not intend to conclude that all the macro and micro factors discussed in this paper are the prerequisite conditions for secondary education expansion in Africa. Instead, it highlights the fact that some of the experiences in East and Southeast Asian countries might be applicable to African countries. For example, South Korea had achieved universal primary and lower secondary education through a phased implementation of fee abolition. The government first targeted children living in backward areas and later expanded the scope of coverage nationwide. Such phased implementation could be useful for Africa, as fee abolition policy in many African countries quite often targets all pupils at once.

In Thailand, the government established lower secondary schools alongside primary schools to encourage primary school leavers to continue their education. In Cambodia, the government offers stipends to children from low-income families when they transit from primary to secondary school. This policy ensures that students are not prevented from progressing to secondary school because of school fees.

These examples show that a context specific intervention policy coupled with other policies can greatly enhance access to secondary education. While the socio-economic, political and cultural context in Africa is different from that in East and Southeast Asia, this does not mean that a specific intervention policy in one country has no relevance to another country. Although planting a policy from outside without considering different contexts is liable to result in the

malfunction of the policy, careful considerations and adjustments to a specific context may lead to a successful intervention policy.

NOTES

1. The average annual growth rate of GNP per capita in 1965–1986 for Lesotho, Botswana, Cameroon and the People's Republic of Congo was 5.6, 8.8, 3.9 and 3.6 respectively.
2. PPP refers to purchasing power parity.
3. All primary graduates were enrolled at one of the lower secondary schools in their catchment by random selection.
4. A tambon is an administrative unit below the district level, consisting of many villages. In 1977, there was approximately one public secondary school per five tambons (Nitungkorn, 1988).

REFERENCES

- Benveniste, L. (2008). Education in Thailand: Improving Secondary Education. In B. Fredriksen, & J. P. Tan (Eds.), *An African exploration of the East Asian education experiences* (pp. 218–286). Washington D. C.: World Bank.
- Boon, G. C., & Gopinathan, S. (2008). Education in Singapore: Developments since 1965. In B. Fredriksen, & J. P. Tan (Eds.), *An African exploration of the East Asian education experiences* (pp. 80–108). Washington D. C.: World Bank.
- Bray, M. (1995). Macau. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 185–201). New York: Garland.
- Bray, M. (2002). *The costs and financing of education: Trends and policy implications*. Education in Developing Asia Volume 3. Manila: Asian Development Bank.
- Bray, M., & Bunly, S. (2005). *Balancing the books: Household financing of basic education in Cambodia*. Comparative Education Research Centre Monograph Series No. 4. Hong Kong: The University of Hong Kong.
- Brown, G. K. (2007). Making ethnic citizens: The politics and practice of education in Malaysia. *International Journal of Educational Development*, 27, 318–330.
- Colclough, C., Al-Samarrai, S., Rose, P., & Tembon, M. (2003). *Achieving schooling for all in Africa: Costs, commitment and gender*. Hants: Ashgate.

- Fredriksen, B., & Peng, T. J. (2008). East Asia education tour: An overview of key insights. In B. Fredriksen, & T. J. Peng (Eds.), *An African exploration of the East Asian education experience* (pp. 1–60). Washington D. C.: World Bank.
- Gopinathan, S. (1995). Singapore. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 79–103). New York and London: Garland.
- Hanmer, L., & Booth, D. (2001). *Pro-poor growth: Why do we need it? What does it mean? And what does it imply for policy?* Paper presented for Sida's Poverty Project August 2001. London: Overseas Development Institute.
- Ihm, C. S. (1995). South Korea. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 125–148). New York: Garland.
- Jimenez, E. (1986). The public subsidization of education and health in developing countries: A review of equity and efficiency. *Research Observer*, 1(1), 111–129.
- Kingdom of Cambodia. (2004). *Education sector performance report*. Phnom Penh: Government Printer.
- Klasen, S. (2004). In Search of the holy grail: How to achieve pro-poor growth? In B. Tungodden, N. Stern, & I. Kolstad (Eds.), *Toward pro-poor policies: Aid, institutions, and globalization* (pp. 63–93). New York: Oxford University Press.
- Lee, C. J. (2005). *Korean model of secondary education development: Approaches, outcomes and emerging tasks*. Paper presented to Seminar on Growth Strategies for Secondary Education in Asia by the World Bank Institute, Kuala Lumpur, Malaysia, 19–21 September 2005.
- Lee, W. O. (1995). Japan. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 19–39). New York and London: Garland.
- Leung, Y. M. (1995). The people's Republic of China. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 203–242). New York and London: Garland.
- Lewin, K. M. (2007). Expanded access to secondary schooling in sub-Saharan Africa: Key planning and finance issues, CREATE Pathways to Access: Research Monograph No.8, University of Sussex.
- Lewin, K., & Caillods, F. (2001). *Financing secondary education in developing countries: Strategies for sustainable growth*. Paris: International Institute for Educational Planning.
- Lewin, K. M., & Sayed, Y. (2005). *Non-government secondary schooling in sub-Saharan Africa. Exploring the Evidence in South Africa and Malawi. Researching the Issues 59*. London: The Department for International Development (DFID).

- Little, A. W., & Green, A. (2009). Successful globalisation, education and sustainable development. *International Journal of Educational Development*, 29(2), 166–174.
- Mahmud, S. (2003). *Female secondary school stipend programme in Bangladesh: A critical assessment. Background paper for EFA Global Monitoring Report*. Paris: UNESCO.
- Mingat, A., & Psacharopoulos, G. (1985). Financing education in sub-Saharan Africa: Issues of equity and efficiency of investment-some policy alternatives. *Finance & Development*, 22(1), 35–38.
- Mingat, A., & Tan, J-P. (1985a). On equity in education again: An international comparison. *The Journal of Human Resources*, 20(2), 298–308.
- Mingat, A., & Tan, J-P. (1985b). Subsidization of higher education versus expansion of primary enrollments: What can a shift of resources achieve in sub-Saharan Africa? *International Journal of Educational Development*, 5(4), 259–268.
- Morris, P., & Sweeting, A. (Eds.). (1995). *Education and development in East Asia*. New York and London: Garland.
- Nitungkorn, S. (1988). The problems of secondary education expansion in Thailand. *Southeast Asian Studies*, 26(1), 24–41.
- Psacharopoulos, G. (1990). Priorities in the Financing of Education, *International Journal of Educational Development*, 10(2/3), 157–162.
- Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. (2009). *World Population Prospects. The 2008 Revision*. New York: United Nations.
- Ravallion, M. (1997). Can high inequality development countries escape absolute Poverty? *Economics Letters*, 56, 51–57.
- Ravallion, M. (2004). *Pro-poor growth: A primer*. The World Bank, Policy Research Working Paper No. 3242. Washington DC: World Bank.
- Republic of Korea. (1970). *Statistical year book of education*. Seoul: Government Printer.
- Republic of Korea. (1971). *Statistical year book of education*. Seoul: Government Printer.
- Republic of Korea. (1972). *Statistical year book of education*. Seoul: Government Printer.
- Republic of Korea. (1973). *Statistical year book of education*. Seoul: Government Printer.
- Republic of Korea. (1974). *Statistical year book of education*. Seoul: Government Printer.

- Republic of Korea. (1975). *Statistical year book of education*. Seoul: Government Printer.
- Republic of Korea. (1977). *Education in Korea*. Seoul: Government Printer.
- Republic of Korea. (1978). *Education in Korea*. Seoul: Government Printer.
- Sweeting, A. (1995). Hong Kong. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 41–77). New York and London: Garland.
- UNESCO, United Nations Educational, Scientific and Cultural Organization. (2003). *2003/4 EFA Global monitoring report. Gender and education for all: The leap to equality*. Paris: UNESCO.
- Velasco, E. (2004). Ensuring gender equity in education for all: Is Cambodia on track? *Prospects*, 34(1), 37–51.
- Watkins, K. (1998). *Economic growth with equity: Lessons from East Asia*. Oxford: Oxfam.
- Watkins, K. (2000). *The oxfarm education report*. Oxford: Oxfam.
- World Bank. (1986). *Financing education in developing countries*. Washington, D. C.: The World Bank.
- World Bank. (1988). *World development report*. Washington D. C.: World Bank.
- World Bank. (1993). *The East Asian miracle: Economic growth and public policy*. Washington D. C.: World Bank.
- World Bank. (1995). *Priorities and strategies for education: A world bank review*. Washington D. C.: World Bank.
- World Bank. (2004). *Education in Rwanda: Rebalancing resources to accelerate post-conflict development and poverty reduction*. Washington D. C.: World Bank.
- World Bank. (2005). *World development report: Equity in development*. New York: Oxford University Press.
- World Bank. (2008). *World development indicators 2008: Poverty data. A supplement to world development indicators 2008*. Washington D. C.: World Bank.
- Young, Y. R. (1995). Taiwan. In P. Morris, & A. Sweeting (Eds.), *Education and development in East Asia* (pp. 105–124). New York and London: Garland.