



**Consortium for Research on
Educational Access,
Transitions and Equity**

**The Pearl of Great Price: Achieving
Equitable Access to Primary and Secondary
Education and Enhancing Learning in Sri Lanka**

Harsha Aturupane

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Consortium for Research on
Educational Access, Transitions & Equity

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Preface

This monograph is a revised version of the Second Annual CREATE lecture organized by the Institute of Education, London and held at the London International Development Centre on November 18th 2008.

Dr Harsha Aturupane explains the background to the high value attached to education for all in Sri Lanka. In the run up to independence, this value contributed to the decision by education policymakers in Sri Lanka to remove tuition fees in all government schools. This has resulted in widespread and equitable access to primary and secondary education over many decades. Despite its generally equitable character Dr Aturupane uses the CREATE zones of exclusion to describe the Sri Lanka education system and the several points at which children of different social and economic backgrounds come to be included and excluded. Over the years several policies have promoted equity in education while others have stifled it. Among those which have favoured equity are the establishment of a network of primary schools within easy reach of children, the removal of tuition fees in government schools, free school meals, uniforms and text books, subsidized transport and co-education. Policies less favourable to the promotion of equitable access include, in Dr Aturupane's view, the stifling of private education and excessive centralization of decision-making, especially in the recruitment and deployment of teachers. The monograph draws particular attention to the CREATE zone of 'silent exclusion' in which many children who are enrolled in school and are turning up to class do not appear to be engaging with their teachers in the types of activity that result in expected learning outcomes. The need for further research in the learning and teaching practices associated with this zone of exclusion is highlighted.

We are delighted that Dr Aturupane accepted our invitation to deliver the CREATE lecture and to develop it further into a monograph for the CREATE series.

Professor Angela W. Little
Institute of Education, London
CREATE Partner Institute Convenor

http://www.create-rpc.org/news_events/Sri_Lanka_Lecture_2008.shtml

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Summary

The experience of public policy in Sri Lanka has had a profound impact on the thinking of the global development community in relation to the role of education in economic development. In particular, the example of Sri Lanka helped to persuade policy makers around the world that government's can successfully develop a general education system to enable universal enrollment and completion of primary education, and provide widespread access to secondary education.

This paper commences by analysing the historical evolution of the Sri Lankan education system. The analysis pays special attention to the political and economic dimensions of public education policy, the sustained long-term commitment of governments to investment in human capital, and the creation of the conditions needed for the successful development of the education system.

The paper then discusses the policy framework for general education in Sri Lanka in relation to the CREATE zones of exclusion (see Lewin, 2007). Sri Lanka has a combination of demand-side policies and supply-side policies that serve to attract and retain children in school through most of CREATE's zones. The most important policies, on both the demand side and the supply side, are identified. The role and importance of other supplementary policies are also discussed, particularly in relation to the education of children from marginalized groups and poor families.

The paper next discusses the performance of the Sri Lankan education system in terms of equity of access to general education and the quality of education. The country is shown to have performed well in relation to several dimensions of equity. In particular, the education attainment levels of girls, and of children from poor families, are impressive when compared to other developing and middle-income countries. In addition, the quality of education, measured both in terms of the overall learning environment and the cognitive achievement levels of students, has been rising over time.

The paper then proceeds to discuss the main future educational challenges facing the country. These are shown to be mainly in the areas of education management and service delivery. The government's policy framework, the Education Sector Development Framework and Programme (ESDFP), is outlined next. The ESDFP has four key themes: (a) promoting equitable access to primary and secondary education; (b) improving education quality; (c) enhancing the economic efficiency and equity of resource allocation; and (d) strengthening governance and service delivery. The paper describes the initiatives and strategies under each of these themes to address the challenges faced by the country, and to develop the education system to the next level of performance.

The paper concludes by drawing lessons from the Sri Lankan experience for other countries. There are several helpful and useful policy lessons from Sri Lanka for other countries. The CREATE framework provides a powerful conceptual model for the analysis and development of policies to promote equitable access to primary and basic education.

The Pearl of Great Price: Achieving Equitable Access to Primary and Secondary Education and Enhancing Learning in Sri Lanka

1. The Political Economy Context and the Framework of Education Policy in Sri Lanka.

1. 1 Background

The importance of education for economic development and social well-being is widely recognized among members of the global development community. Education is recognised as playing a major role in improving living standards, enhancing human development, advancing equity and social mobility, and strengthening democracy and political decision making. It also has inter-generational benefits such as the empowerment of women, the demographic transition, preventive health care and fertility control. Yet, just two generations ago the development community attached comparatively little importance to education. The main emphasis in the early years of development was on infrastructure as the principal requirement for growth. It has been the increasingly sophisticated understanding of the needs, processes and outcomes of development over recent decades which has made economists and policy makers pay special attention to investments in human capital, as a requirement for economic prosperity and social advancement. The experience of a few developing countries, especially Sri Lanka, has made a major contribution to this transformation in thinking.

In the 1980s Sri Lanka was cited as an outstanding example of a low-income country that had attained many of the desired outcomes of development, such as high life expectancy; low infant, child and maternal mortality; high adult literacy; and universal primary school enrolment and gender parity in education (Isenman, 1980; Sen, 1981). This was possible because of public investment in the social sectors. Cross-country studies provided strong support to this approach in the following decades (Anand and Kanbur, 1991; Kakwani, 1993). Along with Sri Lanka other countries and states that had good human development outcomes relative to *per capita* income included Costa Rica and the Indian State of Kerala (Aturupane et al, 1994; World Bank, 2005a).

A common theme among all these countries and states was their clear policy commitment to investment in human capital (Anand and Ravallion, 1993; World Bank, 1993). The human development performance of countries such as Sri Lanka and Costa Rica (along with the achievements of countries such as South Korea, Hong Kong, Singapore, Malaysia and Thailand) helped establish universal enrolment and completion of basic education, and broad-based access to secondary schooling, as important policy goals; capable of yielding multiple and varied economic and social benefits to countries (Barro, 2001; Hanushek and Welch, 2006).

1.2 The political economy of education reform and development

Sri Lanka's achievements in providing universal access to general (primary and secondary) education were the result of a combination of circumstances.

Firstly, Sri Lanka had the advantage of starting early in providing education on a widespread scale. There has been access to free education in the vernacular languages, Sinhala and Tamil in religious institutions, since ancient times. This education was mainly confined to religious instruction and the basic skills of literacy, reading and writing, and sometimes arithmetic. The existence of a system of education provided through religious institutions created an environment in which educated individuals were respected among the population.

The European nations which colonized Sri Lanka from the sixteenth century onwards also contributed to the development of the education system. In the sixteenth and early seventeenth centuries the Portuguese (Sri Lanka's first colonial power) set up schools linked to churches in the coastal areas of the country that they governed. Under the Dutch in the late seventeenth and eighteenth centuries, the schools network in the maritime provinces widened and education was made compulsory for boys up to the age of twelve and for girls up to the age of ten.

In the nineteenth century, when the British succeeded the Dutch, Christian missionaries established schools that taught in the English medium. In 1868 a Department of Public Instruction was created to promote education in the country. During the latter part of the nineteenth century English medium schools were also established by leaders and philanthropists from the Buddhist, Hindu and Muslim communities, in addition to the continued expansion of the Christian schools. The Town Schools Ordinance of 1906 made elementary education compulsory and empowered Local Boards to enforce school attendance in urban areas. The Rural Schools Ordinance of 1907 extended compulsory elementary education to the rural areas of the country.

The expansion of the education system from the later decades of the nineteenth century onwards caused an increase in the quantity of schools from 494 in 1871 to 2,735 schools in 1911. The number of children attending school rose from 38,355 in 1871 to 359,657 students in 1911. Improved access to education had a favourable impact on the literacy level of the population. The male adult literacy rate increased from 23 percent in 1871 to 43 percent in 1911. The female adult literacy rate rose from only 2 percent in 1871 to nearly 12 percent in 1911.

Secondly, a set of enlightened policy makers during the 1930s and '40s understood the importance of universal access to primary and secondary education as a means of achieving equitable and broad-based economic development. The key policy reform of the period was the introduction of free English-medium education in selected government

secondary schools, 'Central Schools'¹. English-medium education opened up economic opportunities in government administration and in the great commercial and trading companies of the private sector. Therefore, the demand for English-medium education was strong through the nineteenth and early twentieth centuries. However, the limited supply of places available in the (largely religious) English-medium schools, meant that only the elite of society, chiefly children of the landed gentry, were able to benefit from this education. The initiative to provide free English-medium education to all children opened the door for talented children from less privileged households to access the type of education which offered the best economic opportunities in later life.

The Parliamentary debates of the 1930s and 1940s show the politicians who championed universal access to education clearly understood that education was an investment for the future of the country. The proposal to provide free English medium education in government schools was referred to as a 'Pearl of Great Price'² (Sumathipala, 1968). After Independence in 1948 successive governments through the 1950s and 1960s placed great importance on investments in human resources (Corea, 1969 and 2008).

Thirdly, the political economy context of the period when the foundations of the modern Sri Lankan education system were being established, the two decades immediately after Independence in 1948, was extremely important. Over these two decades the inter-generational benefits of education were experienced in the country. Children were born where both parents were at least primary educated, and often more. These individuals were able to access better economic opportunities than preceding generations because of their education. As a result, the demand for education for their children became strong. As a consequence, the promotion of universal access to education came to occupy a prominent position in the pantheon of politically attractive policies.

Fourthly, there was strong political commitment to education from both major political parties in post-Independence Sri Lanka. The main champion of the movement for universal free education, C. W. W. Kannangara, Minister of Education from 1931-47, was a member of the United National Party (UNP). The Bill establishing the system of free government education was passed in the State Assembly in which the UNP was in the majority. The UNP was also the party in office immediately after Independence, during the period 1948-1956. As a result, there was sustained political commitment to the provision of universal access to free education. In 1956 the Sri Lanka Freedom Party (SLFP), the other major political party in the country, assumed office in coalition with a few smaller parties. The SLFP continued the policy to provide free access to state education for all.

Over time, both the UNP and the SLFP have formed several governments under a variety of leaders. The commitment to free state schooling has been strong in each government and under all leaders. The sustained commitment from the two major political parties has

¹ Education in the vernacular languages, Sinhala and Tamil, was provided free in government schools. However, education in these languages did not offer the economic benefits of education in English.

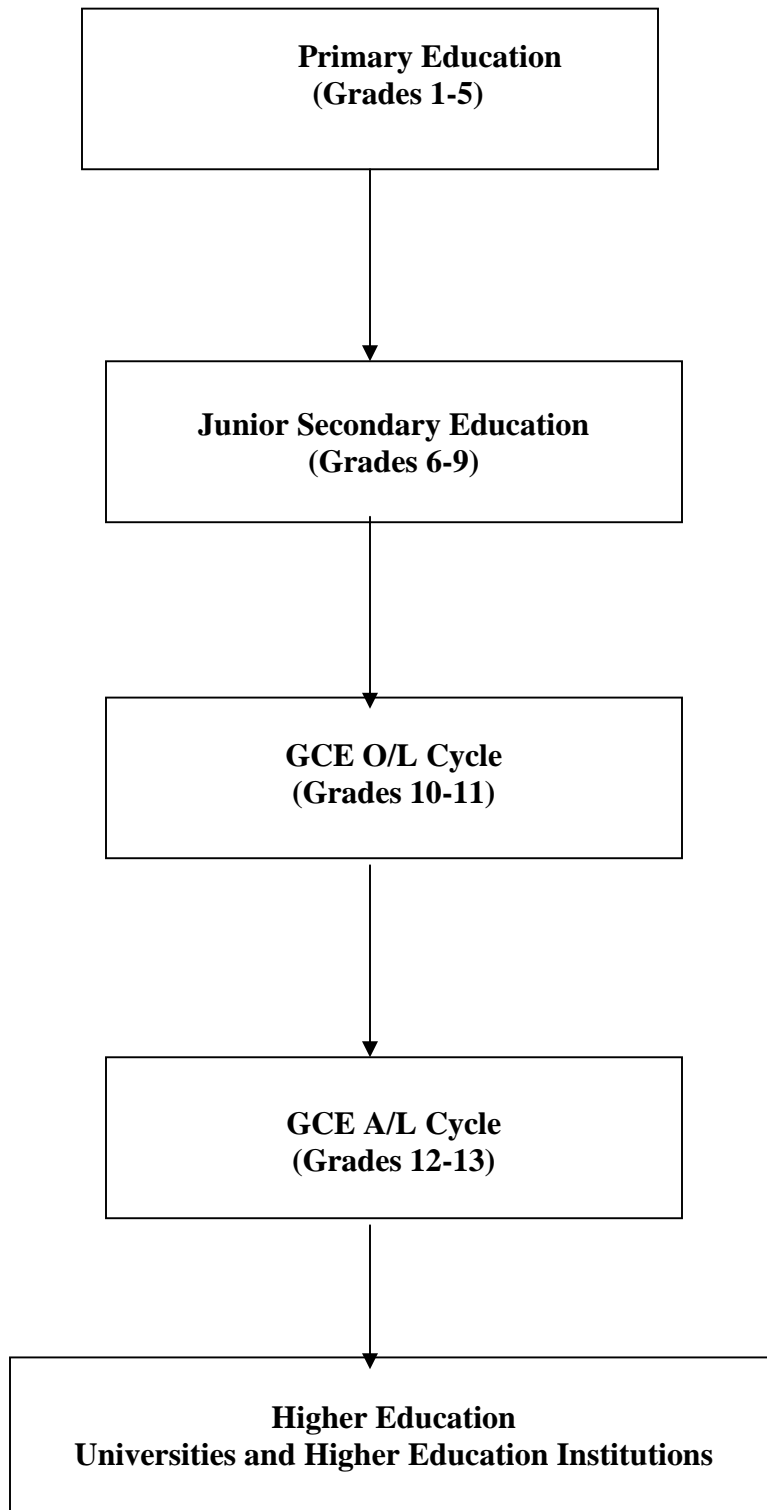
² The term 'the Pearl of Great Price' is a metaphor taken from a parable in the Bible which refers to an item of exceptional value.

been a vitally important factor in the provision of universal access to basic education and widespread access to secondary education.

1.3 The organization of the general education system

The Sri Lankan education system has five main stages (see Figure 1). These consist of primary (grades 1-5), followed by junior secondary (grades 6-9), the GCE O/L cycle (grades 10-11), the GCE A/L cycle (grades 12-13) and higher education. The first four stages, from Grades 1-13, comprise the general education sector. The compulsory basic education cycle, grades 1-9 (ages 6-14), is the combination of the primary and junior secondary education cycles. The senior secondary education cycle is the combination of the GCE O/L and GCE A/L cycles. There are three public examinations: (a) the Grade 5 scholarship, which mainly allows talented children to be allocated to prestigious schools and provides scholarships to some children; (b) the General Certificate of Education Ordinary Level (GCE O/L), at grade 11, which serves both to certify that a student has successfully completed general education up to grade 11 and to select students to proceed to the next stage of general education; and (c) the General Certificate of Education Advanced Level (GCE A/L), at grade 13, which certifies that a student has successfully completed general education and selects students to proceed to higher education.

Figure 1: The stages of the Sri Lankan Education System



1.4 Government policies to provide equitable Access to General Education

The CREATE zones of exclusion model will be used to analyse government policies in terms of equitable access to education. The Consortium for Research on Educational Access, Transitions and Equity (CREATE³) has an original and analytically powerful framework which categorises forms of educational exclusion through seven zones of exclusion (see: Lewin, 2007). These zones consist of:

- Zone zero: Children denied access to pre-school education.
- Zone one: Children denied access to any schooling
- Zone two: Children who drop out from primary school.
- Zone three: Children in school, but at risk of dropping out.
- Zone four: Children who are unable to proceed to lower secondary education.
- Zone five: Children who drop out of lower secondary education.
- Zone six: Children at risk of dropping out of lower secondary education.

These zones of exclusion provide a powerful conceptual model to analyze the general education policy framework in Sri Lanka.

1.4.1 The policy framework and zones of exclusion in pre-school education

Pre-school education is chiefly financed and delivered by the private sector. There are approximately 12,000 pre-schools, such as nurseries, Montessori schools and kindergartens in the country. Enrolment in these institutions is estimated to cover about 60 percent of children aged 3-5 (Abhayadeva, 2003; Wijetunge and Wickremaratne, 2003). Over 80 percent of these pre-school institutions are in the private sector. Clearly, with an enrolment rate of only 60 percent in pre-school, many children lack access to this vital stage of education. Pre-school education is a semi-public good, with substantial social benefits. Hence, there is a case for public provision to supplement the private sector. The government has left service delivery and financing mainly to the private sector partly due to the lack of resources to engage in this large and challenging sector. However, the understanding and appreciation of the general public concerning the educational, economic and social benefits of pre-school education, and early childhood development (ECD) more generally, is also not particularly advanced. In consequence, the political authorities do not have much incentive to engage in this sector.

There is increasing recognition of the vital importance of ECD among policy makers. The government, a few years back, drafted a National Policy on Early Childhood Care and Development (ECCD). This draft policy contains a broad and comprehensive definition of ECCD to address the needs of children from pre-natal to five years. The policy document advocates consideration of the holistic nature of the process of development, and the adoption of an integrated approach paying attention to the child's health, nutrition, cognitive and psycho-social needs. The action plan to realize this mission

³ See: www.create-rpc.org

identifies four strategic areas for intervention: (i) increasing the knowledge and skills of care-providers to promote optimal child survival, growth and development; (ii) expanding and improving training opportunities for the providers of services; (iii) transforming pre-schools that are presently scholastically focused into community-managed, child-friendly development centres; and (iv) providing equal opportunities for all children, including children with special learning needs, for their growth and development.

Overall, however, pre-school education is at present the least understood and researched sector of the education system in Sri Lanka. ECCD needs considerable future work to build the knowledge base of policy makers and the general public, to prepare a programme to provide universal access and coverage, and to strengthen quality.

1.4.2. The policy framework and zones of exclusion in school education

Since 1948, the Government of Sri Lanka has built a wide-ranging and internally consistent policy framework to provide universal access to general education. This policy framework contains a variety of demand and supply-side policies to attract and retain all children in the age group 6-14 years within the education system. The varied range of policies recognizes the existence of different types of children, including children who have never entered the education system (CREATE zone one), children who have dropped out during the primary education cycle (zone two), children who are at risk of dropping out of primary education (zone three), children who are unable to make the transition from primary to junior secondary education (zone four), children who fail to complete junior secondary education (zone five), and children who are at risk of failing to complete junior secondary education (zone six).

Demand-side policies to promote equitable access to education

Sri Lanka has a wide array of demand-side policies to promote school enrolment and attendance.

a) Education is provided free from tuition costs in all government primary and secondary schools. This effectively reduces the direct costs of school enrolment and attendance by a significant margin, and is especially important for children from poor households. The elimination of school fees from government schools is the single most important demand-side policy measure to attract and retain children in school.

b) The government provides a package of incentives for children to attend school. Each child is entitled to a free school uniform per year. Also, all children are given a set of textbooks for their grade. And students are entitled to subsidized transport in buses and trains. This set of incentives helps ensure that poor children have the minimum assistance needed to attend school and to learn (textbooks) during their school years.

c) Primary school children are given free school meals in poor areas. The meals are cooked and served on the school premises. This acts as an incentive for school enrolment and attendance during the primary school age range of 6-10 years. It also provides a nutritional supplement to improve the cognitive capacity and learning of children.

d) The government has enacted compulsory education legislation, making it a legal requirement for all children aged 6-14 years to complete nine years of education (Jayaweera, 1998). The legislation defines the compulsory basic education cycle as grades 1-9, consisting of primary education (grades 1-5) and junior secondary education (grades 6-9). Parents and guardians are responsible for complying with the legislation and ensuring that their children and wards aged 6-14 years participate in the education system.

e) The compulsory basic education legislation is supported by the appointment of school attendance committees, under the leadership of school principals, in school communities. These school attendance committees follow up out-of-school children, if necessary to their homes, and discuss measures to draw the children back into the education system with their parents and guardians. The out-of-school children could be children who have never enrolled in school, or children who have dropped out during either the primary education cycle or the junior secondary education cycle. The effectiveness of the school attendance committees depends on the quality of the school principals who lead these committees, and the capability and commitment of their members, particularly the local government representatives. The school attendance committees led by dynamic principals and containing capable members perform well in following up out-of-school children and drawing them into the education system. In contrast, school attendance committees with weak principals, or less committed members, perform poorly.

These demand-side policies seek to address the needs of children in exclusion zones one to six in the CREATE framework. The policy initiatives operate through a combination of: (a) decreased direct costs through free education; (b) lower indirect costs and inducements, such as the provision of school uniforms, subsidized transport, free textbooks and school meals; and (c) the legal framework, such as the compulsory education legislation and the actions of school attendance committees. These policies form a powerful, mutually reinforcing set of demand-side initiatives.

Supply-side policies to promote equitable access to education

The country also has a wide range of supply-side policies to complement and supplement the demand-side policies and promote educational attainment.

a) The government has established a comprehensive network of primary and secondary schools in the country. A primary school is available within two kilometers of habitations, meaning that every village has a primary school. A secondary school is available within five kilometers of all households. In consequence, all children aged 5-18

years have the opportunity to attend school within reasonable traveling distance of their homes.

The establishment of this comprehensive network of schools is the single most important supply-side policy initiative of the government. In terms of the CREATE framework, this policy initiative covers zones one to six of the CREATE model. No child need be denied access to education due to the non-availability of a school, for his / her age group, within easy travelling distance from the child's home. This is also a necessary condition for the demand-side policy measures to be effective, as it ensures that a school is available for all children who seek to be educated.

(b) There is automatic progression from grades 1-11. This policy initiative enables children to proceed through the education system in line with their age group. Weaker children are not discouraged by failing grades and fall behind. This initiative serves to reduce: (i) the risk of children dropping out either during primary or junior secondary schooling (zone three and zone six); and (b) the risk of children not continuing from primary to junior secondary education (zone four). The measure also reduces the cost of education provision, as it decreases grade repetition.

c) Special education programmes are provided for children with special learning needs. Children with visual impairments, hearing difficulties, behavioural problems, learning disabilities and multiple disabilities, are assisted through special education. The government has a few schools set apart for children with severe learning disabilities. Other children, wherever possible, are accommodated in normal schools, and teachers are trained to work with these children. This policy measure seeks to address primary causes of exclusion, including non-enrolment and drop out (i.e. zones one, two, four and five), as it meets the needs of one of the most vulnerable social groups, children with special learning requirements.

d) Non-formal education programmes are provided for adolescents who either never enrolled in school or dropped out at a young age, and now need skills for the labour market. Non-formal education is offered through functional activity learning centres for children who do not have basic literacy skills, and through a network of community learning centers for children above 16 years of age. This policy initiative seeks to meet the needs of children belonging to two of the main exclusion zones: children who have been either completely excluded from education (zone one) or children who have dropped out early in the education cycle (zones two, four and five).

Overall, the combination of demand and supply side policies constitute a powerful framework to promote enrolment and completion of basic education, and the transition to further levels of education. The two most important policies are the provision of tuition free education and the establishment of a comprehensive country-wide network of primary and secondary schools. These two policies have the widest scope over the zones of exclusions, covering zones one to six. Other policies complement and supplement these two major policies and focus on special groups, covering one or more of the exclusion zones.

1.5 Limitations of the Sri Lankan education policy framework

The Sri Lankan education policy framework has a major weakness in terms of promoting equitable access to basic education. Private sector investment in schools for children aged 6-14 years is prevented by legislation passed in the early 1960s, when a government with an anti-market bias was in office⁴. This restriction weakens the equity and efficiency of the education system.

The exclusion of the private sector from the provision of basic education means that the entire cost of providing universal access, including for children from rich families, has to be borne by the government. This reduces the resources available per student from the government budget. If the private sector did participate in the provision of basic education, children from affluent households would mainly attend private schools. This would enable the government, with the education budget held constant, to invest more resources per student in government schools. As these schools would cater chiefly to children from less privileged households, the higher investment per student would benefit the poor and disadvantaged children. Hence, the restriction on the private sector is inequitable, as it decreases the resources available, per student, for poor children.

In addition, limiting private investment in basic education decreases the total volume of resources that could be made available for education, resulting in under-investment and slower development of the sector. A vibrant private school system would contribute to faster economic growth, which would in turn generate higher revenues for the government to invest in public services, including education. Hence, the constraint on private sector provision of basic education is also a source of economic inefficiency.

It should be noted, however, that opening the school system to the private sector need not automatically improve efficiency and equity. Firstly, the government might decrease investment in public education, if enrolment in state schools fell due to the movement of students to private schools. To avert this danger, there needs to be a strong commitment by the government, at a minimum, to maintain the real value of the overall general education budget constant.

⁴ There are a small number of about fifty-five private schools which existed before the restrictive legislation was passed. In addition, there are also a number of 'international schools', which operate under the Companies Act and offer foreign curricula.

Secondly, the quality of private schools tends to be more variable than the quality of public schools. Some of the best schools in the world are private schools: so are some of the worst schools. A policy to open general education to private sector participation could be supported by the establishment of a sound quality assurance and accreditation mechanism, operating under an independent Board, which would ensure that private schools attained a minimum standard of quality. An alternative and more *laissez faire* approach, of course, would be to allow market competition to drive out the poorer quality schools over time. Both models exist in the world, and Sri Lankan policy makers need to consider their preferred option, if private sector participation is to be promoted.

2. Equitable Access and Coverage of General Education

2.1 Background

Providing equitable access to education has been the central objective of public education policy in Sri Lanka since the country became an independent nation in 1948. At the time of Independence primary education enrolment was at about 60 percent. Secondary education opportunities were scarce, and only 15 percent of the combined primary and secondary school-aged population was enrolled in school. Higher education enrolment was very small, with only about 1,000 students attending university. This pattern of access to education meant that, in the main, it was the middle and upper classes who benefited from education at this time, with the poor largely excluded. Over the years, however, the broad range of government policy initiatives has enabled the general education system to expand substantially and increase equity of access across all economic groups.

2.2. The expansion of educational access over time

The move towards educational equity has required a substantial development of the education system in the period since 1948. This has taken place alongside the expansion of population and the rising demand for education as the economy has grown and household incomes have increased. Educational development during this period was mainly focused on the construction of schools and school buildings, especially classrooms, and the expansion of the teaching force which coincided with the steep rise in student enrolments (see Table 1). From the 1950s to the 1970s the quantity of schools, pupils and teachers increased swiftly in the education system. In 1950, there were around 1.3 million students, about 3,900 schools and approximately 38,000 teachers. By 1981, there were nearly 3.6 million students, over 9,500 schools and about 136,000 teachers. The student-teacher ratio, which was 35:1 in 1950, declined to 29:1 by 1981. As a result of the rapid rise in educational levels the adult literacy rate increased from 65 percent in 1950 to 87 percent in 1981. The main focus of government policy from the 1980s onwards continued to be the expansion of the education system. The number of government schools rose to nearly 10,000 in 1991, with approximately 4.3 million students and around 177,000 teachers. Secondary education enrolment, which had been about 27 percent in 1960 increased to around 70 percent by the early 1990s.

Table 1: Trends in Education Provision and Attainment, 1950-2006

	1950	1960	1971	1981	1991	2002	2006
Government Schools	3,188	4,394	8,585	9,521	9,998	9,826	9,714
Students in Government Schools	1,349,345	2,192,379	2,828,070	3,451,358	4,258,698	4,027,075	3,836,550
Teachers in Government Schools	38,086	69,658	94,858	135,869	177,231	191,812	204,908
Student –Teacher Ratio in Government Schools	35	31	30	25	24	21	19
Student – School Ratio	423	499	329	362	426	410	395
Adult Literacy Rate	65	72	79	87	87	91	93

Sources: Department of Census and Statistics, Ministry of Education and Central Bank of Sri Lanka. Note: Literacy rates are for Census Years, 1953, 1963, 1971, 1981 and 2001 respectively. Literacy rates for 1991 and 2006 are estimated from Household Survey data.

During the 1990s and into the twenty-first century, three new and important factors have begun to affect the public education system. Firstly, fertility rates have declined since the 1970s, causing a demographic transition. From 1987 onwards the number of students entering the school system at grade one each year has fallen. Secondly, there has been an expansion of enrolments in the few private schools and in international schools, reducing the demand for government schools. Thirdly, the population has begun to move from rural to urban areas as the economy has developed. As a result, many rural schools in small villages have become unviable and have closed down. The government, with limited resources for investment in education, is the principal potential beneficiary of these trends, as the resources available for poor students in government schools can increase over time, given a fixed share of public investment for the education budget.

2.3 Education access across economic and gender groups

Equity of access has several dimensions, including economic class, gender and geographical region. The present section discusses all three dimensions of equity. The pattern of education coverage, across economic groups and age and gender categories, is shown in Table 2 and Table 3. According to Table 2 there is a high degree of economic and gender equity in enrolments among children of the primary school age range, 6-10 years. The net enrolment rates range between 95 percent at the lowest consumption quintile and 97 percent at the highest consumption quintile. Net enrolment among the poorest economic group is only one percent below the national net enrolment rate of 96 percent. Between boys and girls, the net enrolment rates are equal among all consumption groups except the second poorest group, where girls' enrolment is slightly higher. The overall net enrolment rate is 96 percent, for both boys and girls.

Table 2: Net Enrolment Rates in Primary Education (Ages 6-10) by Consumption Quintile 2002.

Consumption Quintile	Male Net Enrolment Rate %	Female Net Enrolment Rate %	Total Net Enrolment Rate %
Poorest quintile	95	95	95
Second poorest quintile	95	96	95
Middle quintile	96	96	96
Second wealthiest quintile	97	96	97
Wealthiest quintile	97	97	97
Total	96	96	96

Source: Calculated from the Household Income and Expenditure Survey, Department of Census and Statistics, 2002.

The information in Table 3 shows favourable economic and gender equity in enrolments for children during the basic education age range, 6-14 years. The net enrolment rates vary between 94 percent at the lowest consumption quintile and 97 percent at the highest consumption quintile. Net enrolment among the poorest economic group, once again, is only one percent below the national net enrolment rate of 95 percent. Among boys and girls, the net enrolment rates are equal among the two poorest consumption groups. At the next two consumption groups boys' enrolment is one percent higher than girls' enrolment. Among the highest consumption group the converse applies: girls' enrolment is one percent higher than boys' enrolment. The overall net enrolment rate is 95 percent, for both boys and girls.

Table 3: Net Enrolment Rates in Basic Education (ages 6-14) by Consumption Quintile 2002.

Consumption Quintile	Male Net Enrolment Rate %	Female Net Enrolment Rate %	Total Net Enrolment Rate %
Poorest quintile	94	94	94
Second poorest quintile	95	95	95
Middle quintile	95	94	95
Second wealthiest quintile	96	95	95
Wealthiest quintile	96	97	97
Total	95	95	95

Source: Calculated from the Household Income and Expenditure Survey, Department of Census and Statistics, 2002.

Certain characteristics of the Sri Lankan education system may facilitate the transition from primary to secondary education. In some countries it is necessary to pass an examination at the end of the primary cycle to qualify for the junior secondary cycle. This acts as a barrier for many less able children, as well as children from poorer families. In

Sri Lanka such a barrier does not exist, as promotion from grade 1-11 is automatic⁵. Also, a large majority of schools provide instruction from grades 1-11 or grades 1-13. In 2006, for instance, 69 percent of schools had classes from grades 1-11 or 1-13 (Aturupane, 2009). The fact that a student can stay within the same school, with its familiar environment, to attend the junior secondary grades may facilitate the transition from primary to secondary education for some children.

Overall, the information in Table 2 and Table 3 shows a high degree of equity in access to primary and basic education, both among economic groups and between girls and boys. The net enrolment rates are high and differences across economic classes and between boys and girls, is small.

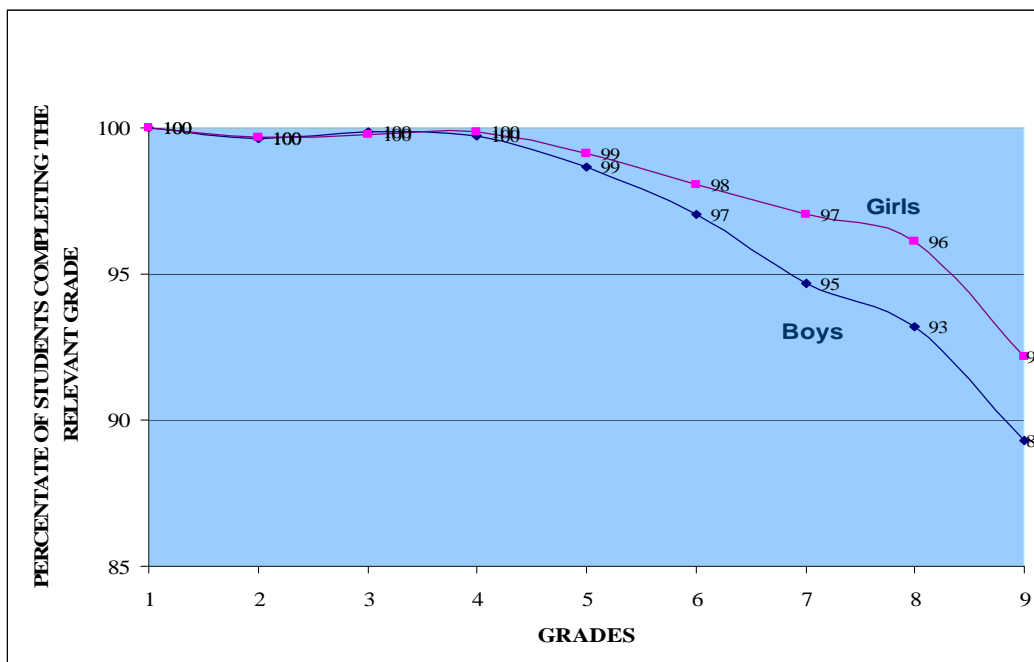
2.4 Survival rates through basic education

The net survival⁶ rates for boys and girls through the basic education cycle, grades 1-9, are presented in Figure 2 below.

⁵ Sri Lanka does have a public examination at the end of the primary cycle, but its purpose is to award a number of scholarships, and also enable some able children to move to better quality schools for their secondary education. The latter feature is controversial, as it makes the grade 5 examination a high stakes examination for young children, and also leads to a distinction between high performers and poor performers in terms of the types of schools they can attend for their secondary education. Policy makers are aware of this issue, and some have recommended eliminating this examination. However, it is very popular among parents, so that the political incentive is to retain the examination.

⁶ The net and gross survival rates are very similar in Sri Lanka, due to the high enrolment rates and the policy of automatic promotion up to grade 11. The difference in net and gross survival rates is usually less than 1 percent.

Figure 2: Survival rates through the basic education cycle (grades 1-9), boys and girls 2007



Source: Calculated from the School Censuses, Ministry of Education.

The information shows that nearly all children survive the primary education cycle, with over 97 percent of boys and more than 98 percent of girls completing primary education and entering junior secondary education. There is some drop out of students during the junior secondary cycle, especially in grades 8 and grade 9. The survival rate at grade 9 is approximately 89 percent for boys and 92 percent for girls. The higher drop-out rate for boys in relation to girls can be attributed to the greater opportunity cost of education for teenaged boys, who enjoy various low-skill job opportunities in the labor market. Overall, the net survival rates have shown a considerable increase over time. When the compulsory basic education legislation was introduced in 1997 only 59 percent of students survived to grade 9. Currently, the survival rate is around 90 percent. The medium-term goal is to raise the net survival rate to grade 9 to over 95 percent.

2.4.1 The geographical distribution of survival rates through basic education

The regional pattern of net survival rates through the basic education cycle, displayed in Table 4 below, reveals a degree of variation between provinces.

Table 4: Net Survival Rates in the Compulsory Education Cycle (Grades 1-9), by Province, 2007.

Province	Net Survival Rates through Grade 1-9 (percentage)		
	Male	Female	Total
Western	93	96	95
Central	91	95	93
Southern	91	96	93
North-Western	88	91	89
Northern	85	90	87
Eastern	85	77	81
North-Central	90	95	92
Uva	88	95	91
Sabaragamuwa	88	91	89
Sri Lanka	89	92	90

Source: Calculated from the School Censuses, Ministry of Education.

The Western and Southern Provinces have the highest survival rates for girls at 96 percent. The Central, North-Central and Uva Provinces follow closely, with female survival rates of 95 percent. All the other provinces, too, have survival rates for girls of 90 percent or higher, except for the Eastern Province, where the survival rate is only 77 percent. Military activity was quite intense in the Eastern Province during 2007, and this may explain the lower female survival rate of girls through the basic education cycle. The responses of male and female students during periods of military activity could differ, with girls more likely to miss school due to fear of violence. It should be noted that the Eastern Province is also the only region where the survival rate through basic education is lower for girls than for boys.

Among boys, the Western Province has again the highest survival rates at 93 percent. The Central and Southern Provinces have the next highest male survival rates at 90 percent, followed by the North-Central Province also at 90 percent. Other provinces range between 85-88 percent.

The strong performance of the Western, Southern and Central Provinces is to be expected. The Western Province, comprising the capital city of Colombo and a high proportion of the commercial, business and industrial activities in the economy, is the most affluent area of the country. In addition, it has some of the best pre-schools, schools and higher education institutions. The Southern Province has two districts, the Galle and Matara districts, with old and well-established education systems, while the third district, Hambantota, has been the focus of considerable policy attention in recent years. The Central Province, too, has affluent regions such as the Kandy and Nuwara Eliya Districts.

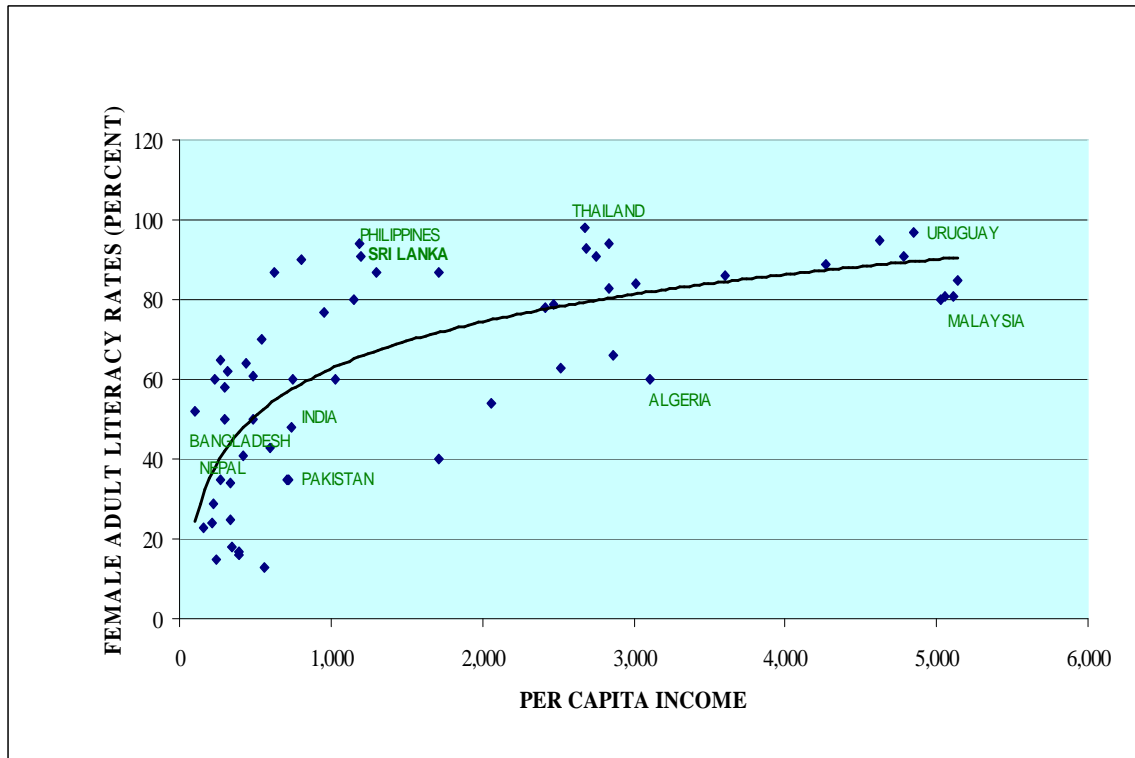
The two provinces which fall at the bottom in terms of survival rates through the basic education cycle are the Eastern Province and the Northern Province. These are the two regions of the country that have been worst affected by the almost three decade long secessionist conflict, being in fact the centre of military activities. Strong policy support

and public investment can help these provinces improve their education systems and catch up with the more advanced and developed areas of the country.

2.5 Education attainment in Sri Lanka in international perspective

The long-term investment in education in Sri Lanka has made the country one of the better performers in terms of adult literacy, especially among women. This is extremely important, as the level of education of the female population represents both a major source of the future economic and social development of a country, and a key outcome of previous development policies and investment in human capital. The recent female education attainment level of Sri Lanka, in comparison to other developing countries, is presented in Figure 3. Points above the regression line represent countries whose female adult literacy rate is above the expected value, given their level of *per capita* income. Points on the regression line represent countries whose female adult literacy rate is at the expected value, given their level of *per capita* income. And points below the regression line represent countries whose female adult literacy rate is under the expected value, given their level of *per capita* income. In Figure 3, Sri Lanka's female adult literacy rate is above the expected value, for the level of *per capita* income of the country. Hence, Sri Lanka is among the better performers in terms of educational attainment among developing countries.

Figure 3: International comparison of female adult literacy rates and per capita incomes, 2005



Source: Calculated from the UNDP Human Development Report, 2007/2008.

Other countries which perform well, in terms of enjoying female literacy rates above the predicted values for their levels of per capita income, include Uruguay, Thailand, the Philippines and Indonesia. Female adult literacy rates in Sri Lanka's South Asian neighbours, such as India, Bangladesh, Pakistan and Nepal, all fall below the predicted values for their levels of per capita income.

3. The Quality of Education: Strengthening School Learning Environments and Cognitive Achievement

3.1 Background

The CREATE framework for the expansion and promotion of equitable access to education states that the quality of education available to children is extremely important (Lewin, 2007). Access to poor quality schools, where children learn little, is inadequate for policy purposes. Not only must children participate in the education system, but their education experience must ensure that they reach the levels of cognitive skills and competencies, and cultural and social dimensions of learning, which the national education system specifies as its curriculum goals.

Education policy makers from the 1950s onwards have been concerned with the quality of the learning environment, especially in rural, estate and semi-urban areas, and sought to improve the quality of education available to children, with particular emphasis on disadvantaged and remote regions. The focus on quality sharpened in the 1970s and 1980s, with several education reform programmes. These reforms gathered further momentum in the 1990s and into the twenty-first century (National Education Commission, 1997 and 2003). The policies to improve education quality focused on a wide range of initiatives, including expanding and enhancing the quality of human and physical resources available in the education system, introducing curriculum and organizational reforms, seeking to transform pedagogical approaches to make primary education more child-centered and secondary education more activity-based (Little, 2000; Gunewardena, 2002).

3.2. The stock of human resources: expansion and development

The central importance of teachers and school principals in the delivery of high quality services at the school level has long been recognized in the education system. In addition, policy makers have established specialized cadres of education administrators, and teacher educators. The general education system currently has four services: the Sri Lanka Education Administrators Service (SLEAS), which constitutes the managers of the system; the Sri Lanka Teacher Educators Service, which is expected to staff the teacher education institutions for pre-service teacher education and continuing teacher education; the Sri Lanka Principals Service, which contains the principals for the school system; and the Sri Lanka Teachers Service, which comprises of school teachers.

3.3. Development of the teaching profession

At Independence in 1948, when the Sri Lankan population was relatively poorly educated at the secondary education level, the stock of teachers available was moderate. There were only about 38,000 teachers for a student population of over 1.3 million students,

yielding a student-teacher ratio of 35:1. At this time the country was mainly an agricultural economy, and the private sector was small and relatively unsophisticated, with the main private companies engaged in the export of primary products such as tea, rubber and coconut. As a consequence, the most prestigious jobs were found in government services, especially the civil service, and professional services such as the judiciary and the medical service. The school teachers, too, were relatively well-paid and enjoyed high status, especially in rural and estate communities.

As the education system expanded, and the output of secondary and tertiary educated young men and women increased from the 1960s and 1970s onwards, and the demand for teaching opportunities was strong. In particular, teaching was considered an appropriate job for women. The school day is from 7.30 a.m. – 1.30 p.m. and there are about three months of holidays in April, August and December, which provides extra leisure time for activities such as home management and child-rearing. The stock of teachers in the education system has increased, over time, until in 2006 the number of teachers was nearly 205,000, for a population of about 3.8 million pupils, yielding a student-teacher ratio of 19:1, half the student-teacher ratio in 1950.

The distribution of students and teachers across the provinces is given in Table 5.

Table 5: The Distribution of Students and Teachers in Government Schools, by Province

Province	Number of Students	Number of Teachers	Student-Teacher Ratio
Western	857,466	40,965	21
Central	503,535	29,421	17
Southern	494,906	28,184	18
North-Western	456,502	26,247	17
Northern	264,849	13,481	20
Eastern	372,452	17,627	21
North-Central	248,637	12,541	20
Uva	276,851	15,567	18
Sabaragamuwa	361,352	20,875	17
Sri Lanka	3,836,550	204,908	19

Source: Ministry of Education, School Census, 2006.

The evidence in Table 5 shows that the availability of teachers in relation to student numbers is fairly even across provinces, with the student-teacher ratio ranging from 17:1 in the Central, North-Western and Sabaragamuwa Provinces, to 21:1 in the Western and Eastern Provinces. Other provinces, including the conflict affected Northern Province, have student-teacher ratios ranging between 18-20 percent. These student- teacher ratios are low by international standards, suggesting that Sri Lanka is relatively well-endowed with teachers. This is chiefly due to the long history of public investment in education. As the quantity of students completing secondary and higher education expanded, there were adequately educated individuals available to increase the teaching force.

Over time, with the growth and development of the economy and the private sector, as well as the availability of employment opportunities in more developed economies overseas, the relative salaries and status of the government services, including the teaching profession, have declined. As a result, the teacher service is no longer as attractive as in previous generations. However, it is still able to attract university graduates, especially female graduates.

3.3.1 Pre-service and continuing teacher education

The country has two types of pre-service teacher education. First, the government has established a network of eighteen National Colleges of Education (NCOEs) which deliver three year pre-service teacher education programmes. Second, the universities produce graduates who, if they obtain a postgraduate diploma in education or a higher Level qualification, such as a Master's degree, can become certified teachers. Between the NCOE's and the universities all entrants into the teaching profession are either qualified teachers, or have the potential to obtain their teaching certification upon completion of an appropriate postgraduate degree.

The country also has multiple opportunities for continuing teacher education. These include a network of one hundred Teacher Centers (TCs), at least one per education zone, which provide short-term teacher training courses. In addition, the NCOEs offer teacher training programmes which complement the courses provided by the TCs. And the universities provide postgraduate diplomas and Masters degrees in education which members of the teaching profession can follow as part of their continuing professional development.

3.3.2 On-site school based teacher development

The new wave of education reforms introduced by the government under the Education Sector Development Framework and Programme (ESDFP) 2006-2010 has initiated a process of on-site school-based teacher development, to complement and supplement the institution-based teacher development system. A wide array of inputs (from university academics, in-service advisors, teacher educators, principals and fellow-teachers) are provided for the school-based teacher development programmes. This novel initiative is administered and managed mainly by the Provincial Education Authorities, within policy guidelines, norms and standards established by the national Ministry of Education. The model of school based on-site teacher development is expected to become, over time, the main and normal mode through which the motivation, skills and performance of teachers are strengthened (World Bank, 2005b).

3.3.3 Weaknesses of the teaching system

The teaching system has three main weaknesses, which constrain performance. Firstly, teaching is a centralised profession, organised according to a national teacher cadre and a provincial teacher cadre. In consequence, teachers belong to a transferable service, where a teacher can be transferred between schools in different parts of the country. In principle,

the teacher transfer system is under the control of the education administrators, and transfers are expected to be made in line with the requirements of schools. However, the political economy context of the country enables teachers to approach political authorities, both at the national and provincial levels, to obtain transfers and appointments to preferred schools. As a result, schools in popular urban centres tend to have surpluses of teachers and schools in remote rural areas sometimes suffer a shortage of teachers. While this problem was acute some years back, it has been mitigated by the large number of teachers in the country, which means that even rural schools have a certain minimum stock of teachers that enables them to function.

The second weakness in the teaching system is teacher absenteeism on workdays. Teachers have high leave entitlements, in line with other government services. Table 6 shows the length of leave taken by teachers during 2007. As evident from Table 6 teachers took over 6 million days of leave in 2007. Across the provinces, the average amount of leave varies between 23 days in the Northern Province and 33 days in the North-Central Province. There is no information on which proportion of this leave was taken by teachers during the school vacations and which proportion during school terms. Anecdotal evidence, however, suggests that much of the leave is taken during term time, leading to teacher absenteeism on school days. Given that the school year consists of 210 days, if it is assumed that teachers take half their leave during term time, teacher absenteeism would be 7 percent. If teachers are assumed to take all their leave during term time, teacher absenteeism would be 14 percent. The actual figure is likely to be somewhere within this range.

Table 6: Leave Taken by Teachers, by Province, 2007

Province	Leave Days	Total Teachers	Leave Days per Teacher
Western	1,239,022	41,891	30
Central	944,188	31,495	30
Southern	927,963	29,106	32
North-Western	775,435	26,787	29
Northern	273,768	12,144	23
Eastern	484,907	17,116	28
North-Central	409,219	12,465	33
Uva	506,302	16,442	31
Sabaragamuwa	650,116	21,751	30
Sri Lanka	6,210,920	209,197	30

Source: Calculated from the School Census, 2007, Ministry of Education.

The third weakness in the teaching system is that teacher employment has been vulnerable to employment-creation policies by governments for university graduates demanding public sector jobs. The slow pace of growth during parts of the 1950s and 1960s, when Sri Lanka followed *dirigiste* economic policies that stifled markets, resulted in the country facing an insurrection in 1971, which was led by educated youth who were unable to find jobs to match their social expectations. Successive governments since then have used public sector recruitment to create employment opportunities for educated

youth, including university graduates, aspiring for government jobs. Many of these educated youth, particularly university graduates, are then placed in the teaching service, as the network of 10,000 schools provides the government with physical facilities to which employees can be assigned. In consequence, the teacher employment process does not fully reflect the educational needs of the system. In particular, teacher recruitment is not closely aligned to the subjects and disciplines in which vacancies exist, resulting in teacher surpluses in some subject areas and teacher shortages in other subject areas.

3.3.4. Policy options to address the weaknesses in the teaching system

The education community in the country, such as education policy makers and interested members of civil society, have discussed the policy option of moving from the present centralised teacher employment system to a decentralised teacher employment system, where teachers are recruited directly by and to schools. Such a decentralised teacher employment policy would have several advantages. First, by making teachers directly accountable to schools and school communities, it would reduce teacher absenteeism. Second, as teachers would be appointed to schools, rather than a transferable centralised teaching service, it would not be possible to exert political influence to obtain transfers to other schools. A teacher wishing to move from one school to another school would have to resign from her or his present school and obtain a new appointment in the desired school. This would serve to improve the deployment of teachers. Third, school-based teacher employment would reduce the scope for teachers to be appointed through public sector job-creation schemes.

The actual implementation of a school-based teacher employment policy would have to be done in the context of a strategic programme, as it would be a paradigm shift within the education system. The policy could commence, for instance, with new recruits into the teacher service. The ability of school communities to manage teachers, including interviewing and selecting suitable candidates, monitoring performance and providing on-site support for teacher development, would need to be built up through capacity building activities. Further, the initial capacity among school communities would vary, especially between affluent urban neighbourhoods and poor rural and estate communities. Hence, the capacity building programme would need to be suitably tailored, depending on the initial capacity levels of the different school communities.

Another policy which has been considered by education policy makers is the provision of fiscal and other incentives, such as faster promotion, for teachers serving in schools located in remote rural and estate regions. The additional benefits would compensate teachers for the disadvantages of their locations.

Combining these two policies, the creation of a decentralised school-based teacher recruitment scheme and the provision of incentives for teachers serving in remote rural and estate schools, is also possible. The implementation of these two policies through a carefully developed and strategic programme is likely to have a beneficial effect on teacher employment practices and teacher deployment outcomes.

3.4 Management and leadership development of school principals

The central role played by school principals in school performance has been appreciated by education policy makers in the country. The Principal's Service has been established, with entry requirements, a career structure, and payments linked to progression in the service. A Center for Education Leadership Development (CELD) has been established to provide training in school leadership and management. CELD provides residential training programmes for principals. Members of the Principal's Service are able to work either as Principals, Deputy Principals or Sectional Heads (e.g. as Head of the Primary Section of a school which combines primary and secondary grades within the same school).

The range of skills and competencies which principals are expected to acquire include the ability to:

- a) clearly articulate the vision and educational goals of schools;
- b) organize schools to implement the curriculum effectively;
- c) match the pedagogical competencies of teachers to the classroom and co-curricular needs of schools;
- d) appraise staff, especially teachers, and progressively improve their skills and competencies;
- e) motivate staff and students towards high performance;
- f) deploy and utilize physical resources to promote school goals;
- g) develop close ties with community organizations, including parent-teacher associations and past pupils associations; and
- h) maintain high visibility and accessibility to pupils, teachers, parents and other community members. (World Bank, 2005b).

3.4.1 Restrictions on the development opportunities of principals

There is an ambiguity in the relationship between the Sri Lanka Education Administrators Service (SLEAS) and the Principals' Service which negatively affects the members of the Principals' Service. At present, SLEAS officers are also able to function as school principals, over and above members of the Principals' Service. As a result, most of the prestigious schools are headed by SLEAS officers. This anomaly creates several problems. Firstly, it obstructs the career path of members of the Principals' Service, and denies them the opportunity to become the principals of the most prestigious schools. Secondly, SLEAS officers are not trained to be career principals, unlike the members of the Principals' Service. Thirdly, vacancies for SLEAS officers in administrative positions, especially in provinces and zones, cannot be filled as the officials who should be serving in these offices are instead located in schools. Often, provinces and zones are then compelled to fill these vacancies through the provision of acting appointments from members of the Principals Service and the Teaching Service.

The elimination of this serious problem has been discussed within policy circles. However, SLEAS officers who either hold principal's positions or plan to, are vehemently opposed to a change in the *status quo*. The problem could be addressed by allowing current members of the SLEAS to work as principals, if they desire and suitable positions are available, and changing the system to ensure that new entrants to the SLEAS can only work in managerial positions in the national Ministry of Education, provincial Ministries and Departments of Education or at the sub-provincial level in education zones and divisions. However, this important policy reform appears to require more preparation, in terms of the formation of a coalition to carry the policy initiative forwards.

3.5 Enhanced physical learning environments

The improvement of physical learning environments in schools has played an important role in the education reform programmes of recent years (National Education Commission, 1997 and 2003; MOE, 2007). Initiatives to improve the physical learning environments of schools have focused on two sets of development measures. Firstly, the provision of essential learning spaces and assets, such as classrooms, desks, chairs, blackboards, water supply and sanitation. Secondly, the provision of higher-order spaces and assets, such as science laboratories, library resource centres, ICT facilities, activity rooms and multi-purpose rooms, with their associated equipment, tools and technology.

3.5.1 Essential learning spaces and facilities

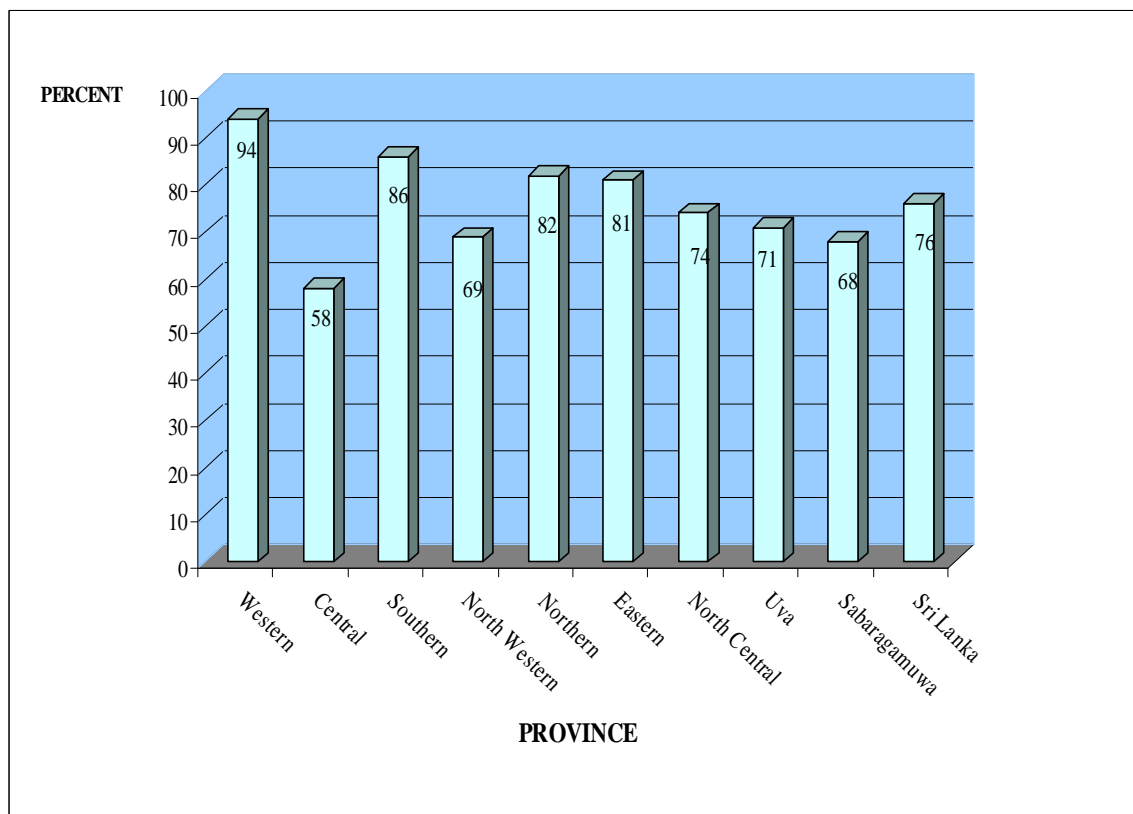
During the initial phase of expansion in the 1950s and 1960s, the majority of schools in poor areas barely had the stock of basic facilities and equipment, such as classrooms, blackboards, desks and chairs, to operate. Classes in poor schools were often conducted in long halls without wall dividers between classes, so that teachers and children in each class were disturbed by the noise from neighbouring classes. Basic facilities such as water and sanitation were also found in only a minority of schools. Over the course of the years, and particularly over the past three decades or so, policy makers have devoted attention to improving the physical environments of schools to promote school attendance, learning activities and co-curricular activities. Norms have been developed for essential school facilities, such as classrooms, administration rooms and staff rooms, water and sanitation. The classroom buildings constructed now contain physically separated classrooms, and sufficient furniture for pupils and teachers⁷.

Basic and essential facilities, such as water supply and sanitation, are being provided to schools to improve their quality environment. As per the norms, about 7,350 schools (75 percent of schools) have water supply facilities (see Figure 4). However, there is considerable variation in the availability of water supply facilities in schools between provinces. The Western Province has the highest proportion of schools with water at 94 percent, followed by the Southern Province where 86 percent of schools have water. In contrast, only 58 percent of schools have water supply facilities in the Central Province.

⁷ Older classrooms in poor areas may still have the long halls with classes that are not physically separated. Over time, these classrooms are being separated with wall dividers consisting of movable partitions.

Other provinces which have relatively weak coverage of water supply facilities are the Sabaragamuwa and North-Western Provinces, where only 68 percent and 69 percent of schools, respectively, have water.

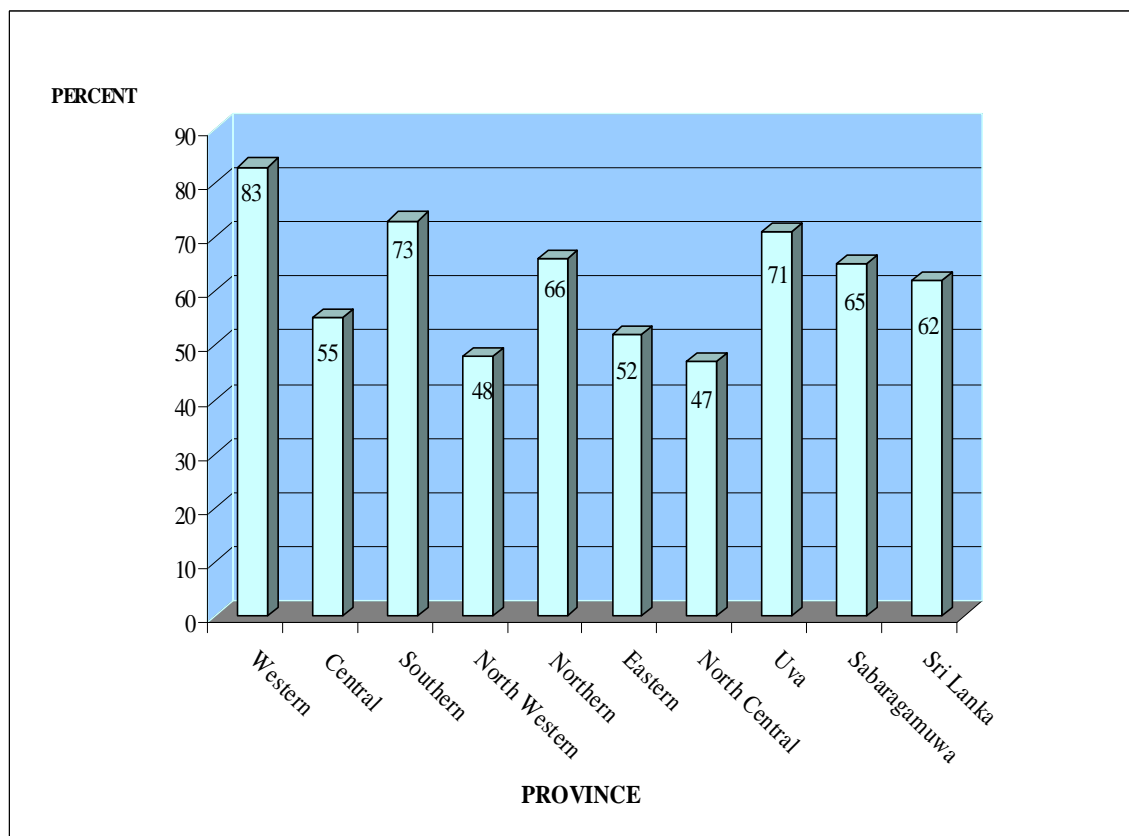
Figure 4: Proportion of schools with drinking water facilities, 2007



Source: Calculated from the Ministry of Education, School Census, 2007.

Sanitation facilities as per the norms are available in slightly over 6,000 schools (see Figure 5). Again, there is substantial variation in the availability of sanitation facilities between the provinces. The Western Province has the highest coverage of sanitation facilities at 83 percent of schools. The Southern Province is once again in second position, with 73 percent of schools having sanitation facilities. The North-Central, North- Western, Eastern and Central Provinces lag considerably behind, with only 47-55 percent of schools in these provinces containing sanitation facilities.

Figure 5: Proportion of schools with sanitary facilities, 2007



Source: Calculated from the Ministry of Education School Census, 2007.

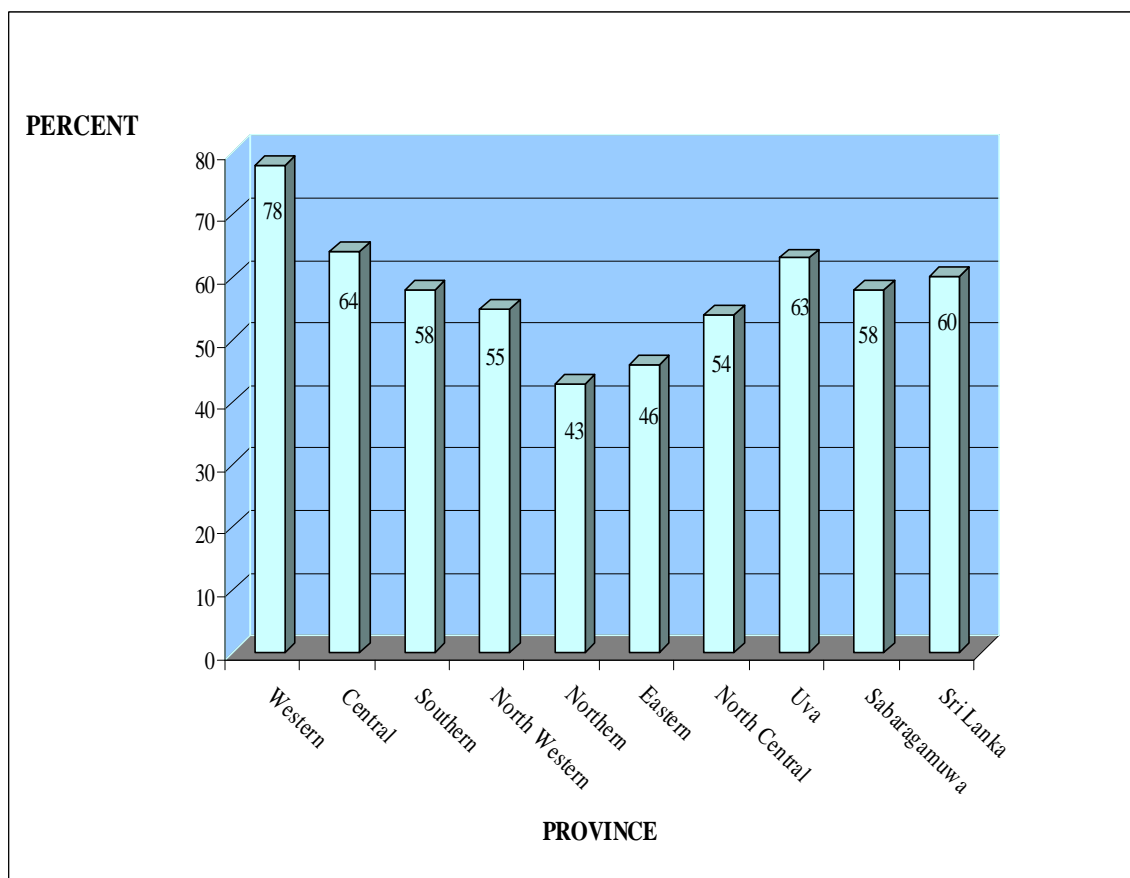
Overall, the proportion of Sri Lankan schools with basic facilities has been increasing with the passage of time. However, there is still a considerable number of schools, especially in some of the provinces, which lack a full set of essential basic facilities, particularly water and sanitation. Over time, this gap needs to be filled through a targeted investment program.

3.6 Higher-order spaces and assets

Education policy makers have also looked at the provision of higher-order learning spaces and assets, such as science rooms and equipment, libraries and library resources, ICT rooms and equipment, activity rooms and multi-purpose rooms, especially in recent times.

Science laboratories are key resources needed to support the school curriculum for GCE O/L classes. The stock of schools with GCE O/L science laboratories is shown in Figure 6.

Figure 6: Proportion of eligible schools with GCE O/L science laboratories, 2007



Source: Calculated from the Ministry of Education School Census, 2007.

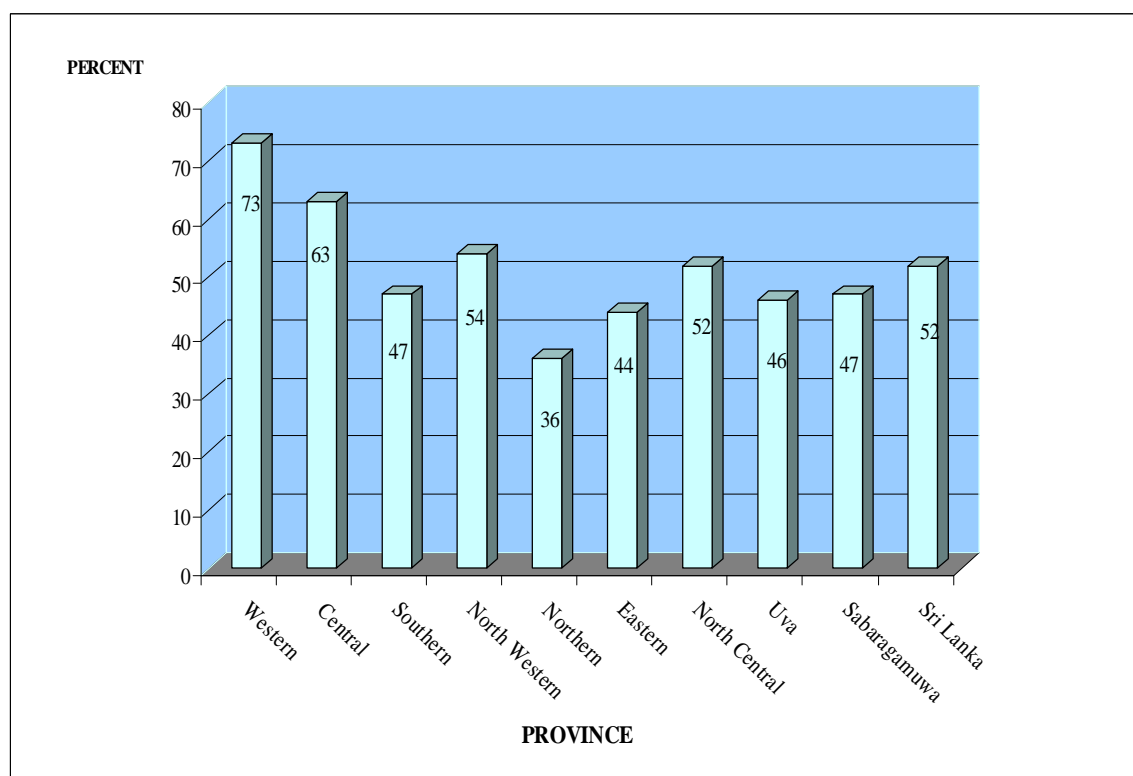
The availability of science facilities in schools has been rising over the years. At present, about 60 percent of schools providing instruction up to the GCE O/L possess the relevant science facilities. The best endowed provinces, in terms of GCE O/L science laboratories, are the Western Province (78 percent of schools), followed by the Central Province (64 percent of schools) and the Uva Province (63 percent of schools). The Northern and Eastern Provinces, in contrast, have the lowest proportion of schools with GCE O/L science facilities, 43 percent and 46 percent of schools respectively.

The rapid world-wide expansion of ICT has been reflected in the Sri Lankan education system, especially from the early years of the twenty-first century onwards. The main emphasis on the provision of ICT facilities has been on senior secondary schools. Students in these grades are considered as close to entering either the labour market or higher education, and ICT skills would facilitate both. The comparatively high cost of ICT equipment and associated peripherals, such as printers, has prevented the rapid expansion and utilization of ICT as a pedagogical tool in primary and junior secondary education. However, as the cost of ICT equipment declines, especially with the production of low-cost educational ICT equipment, the use of computers and associated technology is expected to increase in basic education. As a start, the Ministry of

Education is introducing a pilot project in 2009, with support from the World Bank, to provide a sample of primary schools with the low-cost XO laptop as a pedagogical tool.

The provision and expansion of library facilities, such as book bags and book cupboards in classrooms for small schools, attractive reading corners / rooms for medium-sized schools, and library resource centres for larger schools, has been an important government strategy to improve education quality, especially learning outcomes, in schools. The distribution of library resources in schools is shown in Figure 7. Overall, around 52 percent of schools in the country have library facilities. The Western Province is the best endowed region, with 73 percent of school possessing library facilities. The next best provinces are the Central Province (63 percent of schools), followed by the North-Western Province (54 percent of schools) and the North-Western Province (52 percent of schools). The region with the lowest coverage of libraries is the Northern Province (36 percent of schools). Improving the instructional skills of teachers to promote reading and writing among children is also an important part of the programme.

Figure 7: Proportion of schools with library facilities, 2007



Source: Calculated from the Ministry of Education School Census, 2007.

The central future challenge faced by the government, to improve the physical learning environments of schools, is to reduce the regional disparities in the availability of education facilities. The stock of essential education facilities and high-order spaces and assets needs to be expanded with a strategic focus on the most disadvantaged provinces.

3.7 Learning outcomes in primary education

The measurement of cognitive achievement in primary education has become an important component of education policy analysis and programme monitoring in Sri Lanka. A National Education Research and Evaluation Center (NEREC) has been established at the Faculty of Education in the University of Colombo to conduct education research, with a special focus on national assessments of learning outcomes. In addition, a similar research centre is being created at the Open University, to widen the set of institutions which can undertake education research in national assessments. Overtime, the research capacity of the education departments in the universities of Peradeniya and Jaffna, too, are to be developed.

NEREC has conducted National Assessments of Learning Outcomes at Grade 4 in 2003 and 2007, respectively. The results from these assessments provide useful information for the analysis of policy and the monitoring of the progress of the education system.

3.8 The time trend of learning outcomes in primary education

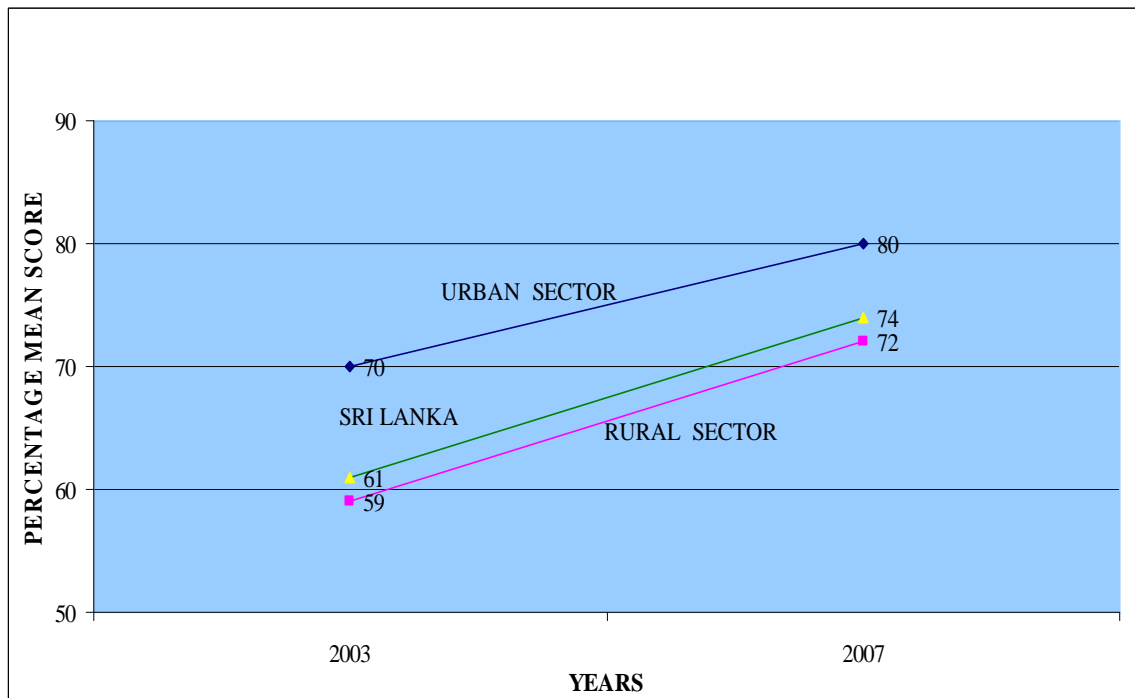
The trend of learning outcomes for two subjects in the primary school curriculum, mathematics and English, are presented in Figure 8 and Figure 9 respectively⁸. The information in the two figures shows that learning outcomes increased for both subjects between 2003 and 2007. Further, this increase is seen in the urban sector and the rural sector.

In mathematics, the national mean score increased from 61 percent in 2003 to 74 percent in 2007. In the urban sector, the mean score rose from 70 percent in 2003 to 80 percent in 2007. And in the rural sector, the mean performance improved from 59 percent in 2003 to 72 percent in 2007⁹. In English, the Sri Lanka mean performance improved from 42 percent in 2003 to 52 percent in 2007. In the urban sector, the mean score increased from 55 percent in 2003 to 64 percent in 2007. And in the rural sector, the mean score rose from 39 percent in 2003 to 50 percent in 2007. These are substantial

⁸ The National Assessments 2003 and 2007 were undertaken by the National Education Research and Evaluation Center (NEREC) of the University of Colombo. The test papers used for the 2003 National Assessment, and been kept confidential by NEREC, were also used for the 2007 National Assessment.

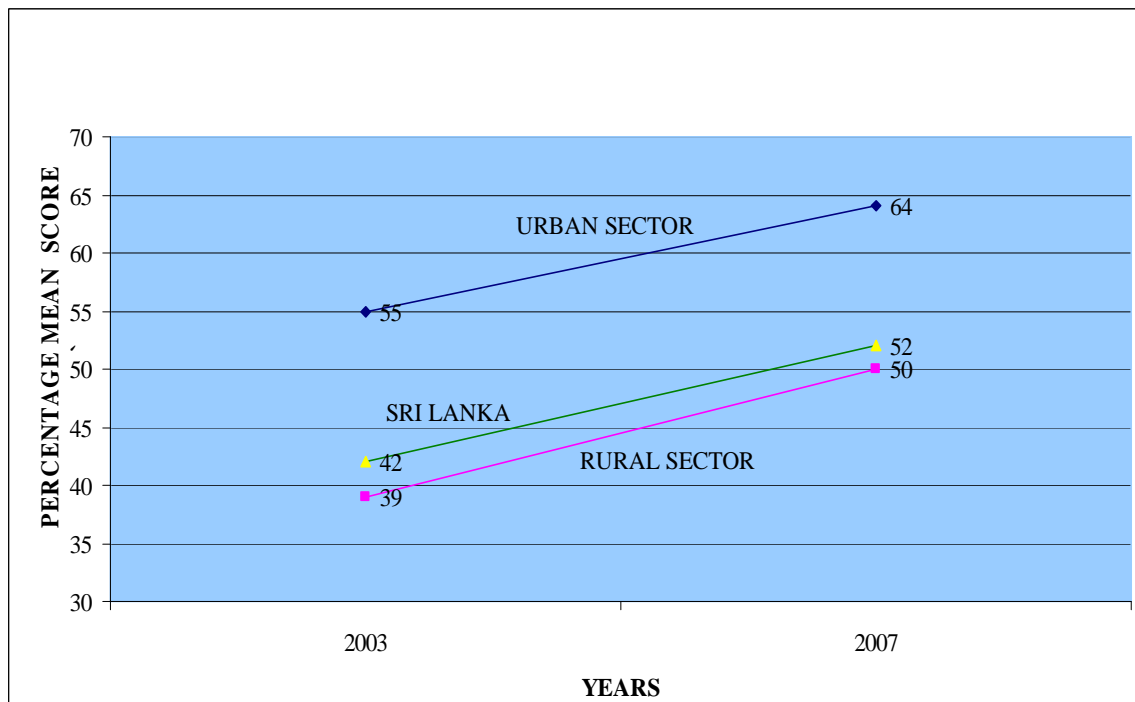
⁹ The national mean scores are closer to the rural sector mean scores because the rural sector is much larger than the urban sector in Sri Lanka.

Figure 8: The time trend of mathematics learning outcomes, grade 4, 2003-2007



Source: National Assessments of Learning Outcomes, 2003 and 2007, National Education Research and Evaluation Center, University of Colombo.

Figure 9: The time trend of English language learning outcomes, grade 4, 2003-2007



Source: National Assessments of Learning Outcomes, 2003 and 2007, National Education Research and Evaluation Center, University of Colombo.

increases over a period of four years. It is, of course, necessary for these findings to be supported by further National Assessments in the future, in order to reach a reliable and robust conclusion about the magnitude of improvement. But the positive direction of change over time is likely to be correct.

The overall findings of the Grade 4 National Assessments of Learning Outcomes in 2003 and 2007 suggest that the quality of primary education in the country is improving. The education reform programmes of the 1990s and the twenty-first century, including the ESDFP, appear to be working, given the increases seen in the cognitive achievement performance of students in both mathematics and English, and in all types of schools¹⁰.

3.9 Performance in Learning Outcomes by Type of School

The trend improvement in the mean cognitive achievement scores in mathematics and English are further analysed below in terms of the distribution of performance, by type of school, in Table 7 and Table 8 respectively. Type 1AB schools are large and prosperous schools which have classes from grades 1-13, and offer the full primary, junior secondary and senior secondary school curriculum. Type 1C schools are large schools which run from grades 1-13, and offer the full school curriculum except science for the GCE A/L. Type 2 schools run from grades 1-11, and offer the school curriculum up to the GCE O/L. Type 3 schools are usually primary schools, running from grades 1-5, although a few Type 3 schools offer classes from grades 1-8.

The information in Table 7 shows a trend increase in learning outcomes for primary mathematics in all types of schools. At the national level, the proportion of pupils in the highest quartile of the distribution increased from 41 percent in 2003 to 59 percent in 2007. There was, correspondingly, a fall in the proportion of pupils in the lower three quartiles, with the steepest decline observed in the bottom two quartiles. The improving trend of learning outcomes is observed in all school types. Among the different classes of schools, students in type 1AB schools perform best. Pupils in type 1C and type 3 schools come next, with very small differences in performance among them. Students in type 2 schools lag behind the children in other types of schools.

¹⁰ NEREC undertook National Assessments of Learning Outcomes in Grade 4 for First Language (Sinhala and Tamil) too. The First Language performance of students also shows strong improvement between 2003 and 2007. The data are not presented further in this report due to methodological issues in comparing the tests for two different languages.

Table 7: National Assessment of Learning Outcomes at Grade 4 in 2003 and 2007 in Mathematics

Province	National Assessments of Learning Outcomes 2003				National Assessments of Learning Outcomes 2007			
	Proportion of Students Scoring Between:				Proportion of Students Scoring Between:			
	0-25 percent	26-50 percent	51-75 percent	76-100 percent	0-25 percent	26-50 percent	51-75 percent	76-100 percent
Sri Lanka	18	18	24	41	8	12	21	59
Type 1AB	8	10	20	62	4	8	15	74
Type 1C	15	17	26	42	7	10	22	60
Type 2	23	22	25	30	11	16	23	50
Type 3	21	18	21	40	8	13	21	58

Source: Calculated from the National Assessments of Learning Outcomes, National Education Research and Evaluation Center, University of Colombo. Note: cumulative percentages may not exactly add to 100 percent due to rounding.

Table 8: National Assessment of Learning Outcomes at Grade 4 in 2003 and 2007 in English

Province	National Assessments of Learning Outcomes 2003				National Assessments of Learning Outcomes 2007			
	Proportion of Students Scoring Between:				Proportion of Students Scoring Between:			
	0-25 percent	26-50 percent	51-75 percent	76-100 percent	0-25 percent	26-50 percent	51-75 percent	76-100 percent
Sri Lanka	26	42	19	12	14	38	26	23
Type 1AB	12	31	29	28	7	24	31	39
Type 1C	24	46	20	10	13	39	27	21
Type 2	34	46	14	6	19	46	22	13
Type 3	28	38	20	14	14	35	25	26

Source: Calculated from the National Assessments of Learning Outcomes, National Education Research and Evaluation Center, University of Colombo. Note: Cumulative percentages may not exactly add to 100 percent due to rounding.

The evidence in Table 8 indicates that learning outcomes in primary English improved between 2003 and 2007 in all types of schools. The proportion of students scoring over 75 percent, and between 50-75 percent, increased between 2003 and 2007. Conversely, the proportion of students scoring between 0-25 percent and between 26-50 percent decreased. Once again, the improvement in cognitive achievement is observed among students from all types of schools. Among the different school categories, students in type 1AB schools perform best. Students in type 3 schools perform next best, followed by students in type 1C schools, with a sizable difference between the two types of schools. This is a reversal of the order observed between type 3 and type 1C schools for mathematics. The better performance of students in type 3 schools relative to type 2 schools is an interesting and unusual result, and more research into the teaching and learning of English in the various types of schools would be a useful addition to the

information base on Sri Lanka. Students in type 2 schools perform worst in English, as with mathematics.

The repeated and consistent finding that students from type 2 schools perform worse than students from other types of schools is important for policy purposes. This class contains the largest number of schools in the country: in 2006, about 43 percent of all schools were type 2 schools (Aturupane, 2009). Type 2 schools tend to be attended by children from poorer homes in rural and estate areas, as well as lower-income urban areas. The weaker performance of children who attend type 2 schools compared to other types of schools suggests that greater policy attention, and more public resources, should be targeted to this type of school.

4. Developing Primary and Basic Education in the Twenty-First Century: the Government Policy Framework

4.1 Background

The Government of Sri Lanka, under the leadership of the National Ministry of Education and in consultation with the Provincial Ministries and Departments of Education, the Ministry of Finance and Planning, and the Finance Commission formulated an Education Sector Development Framework and Program (ESDFP) 2006-2010 for the development of the general education system (Ministry of Education, 2007). The ESDFP was prepared through a wide-ranging consultation process that included government policy makers, technocrats and administrators, university academics, researchers, school principals, teachers and parents.

The ESDFP is organized according to four themes, which form the long-term goals of the programme:

Theme 1: Promoting Equitable Access to Basic and Secondary Education

Theme 2: Improving the Quality of Education

Theme 3: Enhancing the Economic Efficiency and Equity of Resource Allocation

Theme 4: Strengthening Education Governance and Service Delivery

These four themes are complementary and mutually reinforcing. Each theme contains several components. These constitute the strategies through which the objectives of the themes are to be achieved. The ESDFP also places strong emphasis on monitoring and evaluation, with a strategic results framework which has time-sequenced output and outcome targets under each theme for all nine provinces.

The ESDFP has several strategies which seek to address the issues which Sri Lanka faces which are relevant to CREATE's zones of exclusion. These strategies are discussed in relation to each theme.

4.2 Theme 1: promoting equitable access to basic and secondary education

The two key objectives of this theme are to ensure that all children aged 6-14 years complete the compulsory basic education cycle (grades 1-9), and that all students aged 15-18 have access to secondary education (grades 10-13). The first objective is relevant to the CREATE framework, which covers primary education and lower secondary education. The main distinction between the ESDFP and the CREATE framework is that the former seeks to ensure that all children aged 6-14 years complete nine years of education, which covers both primary and junior secondary education, while the CREATE zones of exclusion focus on the completion of primary education, and the facilitation of lower (junior) secondary education. Theme one of the ESDFP framework is appropriate for Sri Lanka, as the country has achieved universal completion of primary education, and the principal challenge in terms of equity of access is to achieve universal completion of the junior secondary cycle.

Historically, the country has offered a broad array of demand-side incentives to promote school enrolment and attendance. These include the provision of free general education in government schools, free school textbooks for all children from grades 1-11, free school uniforms, subsidized public transport and scholarship schemes to support children from poor households. The two main novel initiatives under the ESDFP are the provision of school meals for primary school children in poor areas, and the promotion of school health and nutrition programmes for children.

4.2.1 The school feeding programme for primary grades

The coverage of the school feeding programme for primary school children is summarized in Table 9. According to the information provided, the programme is well-developed in seven provinces, with only the conflict affected Northern and Eastern Provinces left wanting. The largest coverage, in terms of schools, is in the Central Province. The largest coverage in terms number of children is in the Southern Province, followed by the Western Province.

Table 9: The Coverage of the School Feeding Programme for Primary Grades, 2008

Province	Number of Schools Covered by the Programme	Number of Children Covered by the Programme	Allocation (Rupees)	Total Number of Schools
Western	821	85,403	109,353,827	1,353
Central	1,049	80,450	199,587,210	1,467
Southern	815	93,945	223,604,219	1,093
North-Western	828	76,632	200,701,172	1,221
Northern	33	3,946	13,180,694	892
Eastern	384	47,850	136,404,514	971
North-Central	553	63,825	165,353,790	782
Uva	704	67,094	169,597,116	831
Sabaragamuwa	837	56,600	132,038,537	1,104
Sri Lanka	6,024	575,745	1,430,821,079	9,714

Source: Ministry of Education, School Health and Nutrition Unit.

The extension of the school feeding activities to cover primary grades in the Northern and Eastern provinces, on a widespread scale, is the next major step in the implementation of the programme. This step started in 2009.

4.2.2 The school health and nutrition program

The second initiative, the School Health and Nutrition Promotion Program seeks to enhance the effectiveness of school health and nutrition education activities. The objectives of this programme are to:

- a) Improve health policies at all levels;

- b) Improve health knowledge and skills to prevent communicable and non-communicable diseases;
- c) Promote a healthy and safe school environment which facilitates learning;
- d) Improve the health and nutritional status of school children through the delivery of health and nutrition interventions in partnership with the Ministry of Health;
- e) Enable and promote effective partnerships between schools and local the communities.

The strategies proposed to achieve these objectives include the setting up of health promotion committees at all levels, teacher development, establishment of health promotion centres in schools, provision of resource materials, improved access to water and sanitation, a favourable physical and psycho-social environment in schools, providing access to health services mainly through School Medical Inspections (SMI), nutrition interventions and strengthening school-community relations.

4.2.3. The special education program

The next key initiative under the ESDFP to promote equitable access to general education is to strengthen the delivery of special education programmes for children with special learning needs. These special education programmes apply particularly to children in the primary and junior secondary grades, as children with special learning needs require additional attention and assistance during the early cycles of the education system.

The special education programme under the ESDFP covers a range of children with special learning needs. This includes children who have been psychologically affected by the secessionist conflict, suffer from visual impairment, hearing difficulties, behavioural problems, multiple disabilities, learning disabilities and epilepsy. The ESDFP also seeks to include other non-disabled individuals in special education needs categories. These include street and working children and child combatants.

The activities under the programme cover medical screening, development of instruments for psychological and psychiatric screening, awareness programmes for parents, and periodic activities for children with special education needs, such as education camps. The programme also focuses on the introduction of new instruments to identify children with special education needs, updating syllabi and modules, promoting inclusive education, providing required infrastructure facilities and equipment to special schools and regular classrooms, training special education teachers, and seeking to improve the competencies of regular teachers in inclusive education. The National Institute of Education (NIE) develops special education curricula and provides teacher training services.

The demand for special education services exceeds the capacity of the present education system. Increased provision of modern equipment, such as Braille computers, physical education equipment, and hearing impaired communication devices, is needed for special education centres. In addition, the skills and competencies of teachers, principals and in-service advisors needs further strengthening to deliver special education services. These

needs will have to be met over time, as the average cost of providing special education is higher than the average cost of the regular education system.

4.2.4 The non-formal education program

A further key initiative under the ESDFP to promote equitable access to general education is to develop non-formal education programmes for adolescents who either never attended school or dropped out when they were younger, and now require skills and competencies to enter the labour market. The non-formal education system seeks to provide functional literacy and work-related skills programmes, depending on the type and degree of need of the students. The non-formal education programme contains several key activities:

- a) the promotion of the aims of the compulsory education legislation through awareness and media programmes, the activation of more than 8,000 school attendance committees in local communities, the surveying and identification of non-school going children, the provision of facilities for these children, and the training of staff, especially in the provinces, zones and divisions;
- b) the development of functional activity learning centres for children who lack basic literacy skills;
- c) the strengthening of community learning centres for young adolescents;
- d) the development of programmes for particularly vulnerable groups such as street children and children affected by the secessionist conflict;
- e) the capacity building of non-formal education project officers; and
- f) the provision of opportunities for further learning and certification through distance mode education, under the concept of an Open School.

Overall, the emphasis of these strategic activities to promote equitable access is targeted at specific groups of children. These are mainly: (a) children who belong to the exclusion zones one, two and five, and have either not participated in the education system or dropped out early in the primary and junior secondary cycles; (b) children belonging to the exclusion zones three and six, who while attending school are vulnerable to the risk of dropping out from primary education or junior secondary education; and (c) children belonging to exclusion zone four, who are at risk of not making the transition from primary to secondary education.

4.3 Improving education quality

The other themes of the ESDFP, too, have strategic policy measures and development initiatives to promote equitable access to general education. The quality of education offered in schools is an important factor influencing school enrolment and attendance by children. Low quality schools discourage children from attending school, while good

quality schools attract and encourage children to attend school. The second theme of the ESDFP is the improvement of education quality. Two key initiatives to improve the quality of education are closely linked to the promotion of equitable access to basic education.

4.3.1 The primary education reform program

The Primary Education Reform Programme began in the late 1990s, and contained an elaborate master plan for implementation (Little, 2000). The second stage of the reform programme is being supported under the ESDFP and seeks to promote child-centred pedagogical methods. School buildings and classrooms are organised to be attractive for children, with brightly coloured and decorated walls and furniture. Pupils sit in groups and team-based learning activities are used as key elements of the education process, especially in the early years of the primary cycle (grades 1-3). Teachers are also trained to use interactive and participatory teaching methods. Textbooks are provided with large print, colourful pictures and illustrations, narrative and rhyming text. These elements of the primary education reform are popular among children, and contribute positively to the improvement of education quality. This, in turn, makes it easier to promote school enrolment and attendance, especially among poorer and less able children vulnerable to non-enrolment or to dropping-out early.

4.3.2 The promotion of social cohesion through the education system

Sri Lanka has experienced an ethnic-based secessionist conflict for nearly thirty years. This conflict has slowed down the country's overall economic growth, human development and social progress. The centre of military activity has been the Northern and Eastern Provinces, and during periods of armed conflict schools have been damaged and education disrupted. As a result, children in these regions have been the most vulnerable to early drop-out. In addition, the quality of education has made the least progress in these conflict-affected areas.

The promotion of social cohesion through the education system, especially among children of different ethnic groups, is a policy initiative of central importance to advance respect for diversity and ethnic harmony in the country (Ministry of Education, 2007). Children living in geographical areas where they are exposed to members of other ethnic and religious communities have been found to be more willing to live together in a multi-ethnic and multi-religious society than children living in mono-ethnic geographical regions (NEREC, 2004). The Ministry of Education pursues a number of strategies to promote social cohesion:

- a) The school curriculum is reviewed by multi-ethnic and multi-religious committees to detect any ethnic or religious bias, and to eliminate curriculum material offensive to any ethnic or religious community.
- b) School textbooks are reviewed by multi-ethnic and multi-religious committees. Any material that exhibits ethnic-bias or religious bias is revised, and any material

- which is detrimental or offensive to any ethnic or religious community is removed.
- c) English language skills are promoted to provide a link language between Sinhala speaking children and Tamil speaking children.
 - d) Teachers are trained to be sensitive to the needs of multi-ethnic and multi-religious schools and classrooms.
 - e) Joint teacher training programmes are conducted for teachers from the different ethnic and religious communities.
 - f) Co-curricular activities are promoted among children from the different ethnic and religious communities.
 - g) Exchange programmes are conducted between children from different parts of the country.

4.4. Enhancing the economic efficiency and equity of resource allocation

The financing of education is of central importance to the success of education policies to promote equity of access to education and learning. This is recognized in the ESDFP through its third major theme, which has the objective of enhancing the efficiency and equity of public education investment.

4.4.1 The pattern of public education investment

The pattern of public education expenditure for the most recent five years is shown in Table 10.

Table 10: The Pattern of Public Education Investment, 2003-2007

	2003	2004	2005	2006	2007
Government Education Expenditure (rupees billion)	39	42	64	78	99
Government Recurrent Education Expenditure (rupees billion)	32	34	51	61	84
Government Capital Education Expenditure (rupees billion)	7	9	13	17	15

Source: Calculated from the Budget Books of the Ministry of Finance and Planning, and the Central Bank of Ceylon, Annual Reports. Note: numbers may not always add up precisely due to rounding.

According to the information in Table 10, the level of public investment in education has increased, in nominal terms, from 39 billion rupees in 2003 to 99 billion rupees in 2007. In real terms the education budget approximately doubled over this period. In foreign currency terms, the education budget rose from about US\$404 million in 2003 to US\$895 million in 2007. The main expansion in the education budget occurred from 2005 onwards. One of the chief contributory factors for this increase from 2005 onwards has been that the government has undertaken a policy of major public sector recruitment, including the employment of teachers into the general education sector. In addition, public sector employees (including teachers) received substantial salary increases in 2006. These

policies are reflected in the composition of the education budget. The recurrent education budget has risen, in nominal terms, from 32 billion rupees in 2003 to 84 billion rupees in 2007, while the capital education budget has increased only from 7 billion rupees to 15 billion rupees over the same period. As a result, the share of the recurrent education budget rose from 82 percent in 2003 to 85 percent in 2007.

The shares of public education expenditure in total government expenditure and in GDP are shown in Table 11. Public investment in education as a share of GDP was only about 2 percent in 2003-04. However, this share had increased to 2.8 percent by 2007. Public investment in education as a proportion of total government expenditure has ranged from about 6 percent in 2003-04 to somewhat over 8 percent in 2007. The share of the recurrent education budget in the government recurrent budget rose from between 9-10 percent in 2003 to close to 14 percent in 2007. This is mainly due to the teaching service, which accounts for about 20-25 percent of the government public service. Therefore increases in teacher recruitment and in public sector salaries tend to be reflected more than proportionately in the education recurrent budget. The proportion of the government capital budget invested in education increased from slightly over 2 percent in 2003 to 3.3 percent in 2005 and 3.4 percent in 2006, but decreased to 2.6 percent in 2007. This is mainly due to government policy to increase investment in infrastructure projects, such as roads, power generation and ports.

Table 11: Public Investment in Education as a Share of GDP and Government Expenditure

	2003	2004	2005	2006	2007
Proportion of GDP Invested in Education (%)	2.1	2.0	2.6	2.7	2.8
Proportion of the Government Budget Invested in Education (%)	5.9	6.1	7.7	7.5	8.3
Proportion of the Government Recurrent Budget Invested in Education (%)	9.7	8.9	11.6	11.3	13.7
Proportion of the Government Capital Budget Invested in Education (%)	2.1	2.8	3.3	3.4	2.6

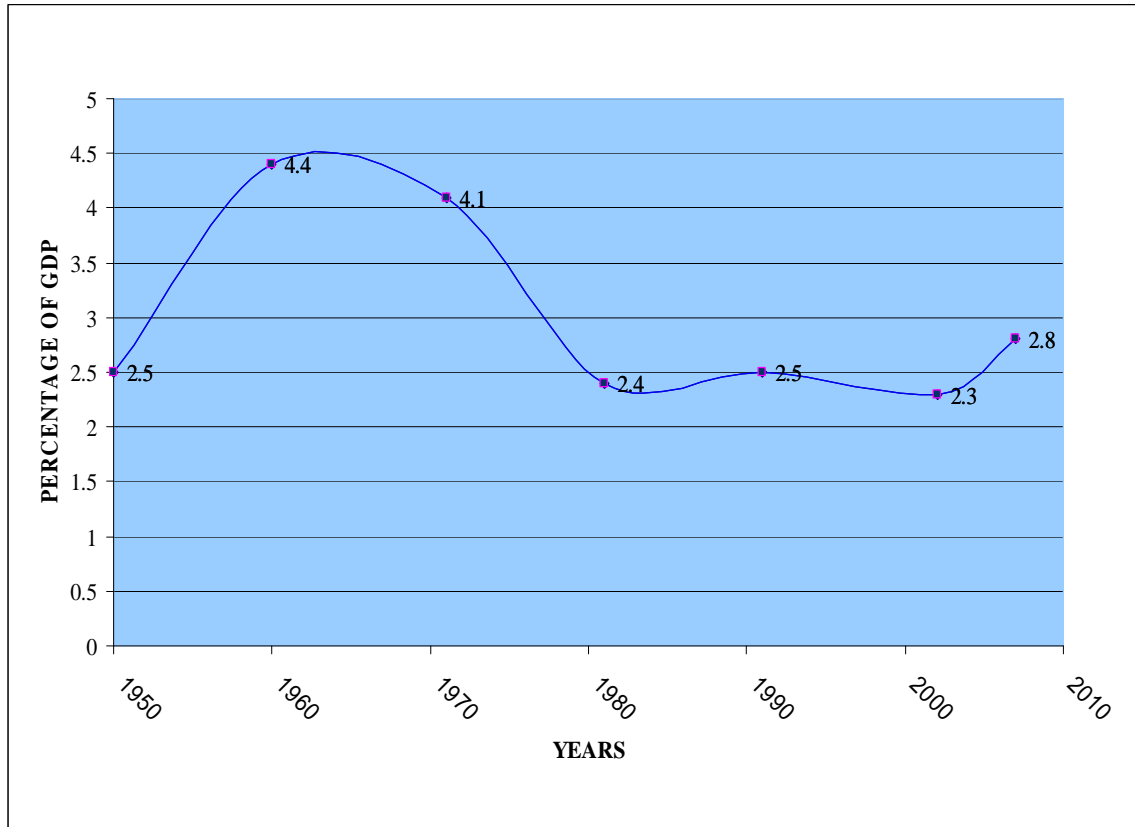
Source: Calculated from the Budget Books of the Ministry of Finance and Planning, and the Central Bank of Ceylon, Annual Reports. Note: numbers may not always add up precisely due to rounding.

4.4.2 The time trend of public education expenditure

The long-term time trend of public investment in education is shown in Figure 10. The evidence reveals that Sri Lanka invested between 3.5-4.5 percent of GDP from the 1950s to the 1970s in education. This was a time when the enrolment of students was rising rapidly, which required the school capital stock to expand and the recruitment of teachers to increase sharply. From the 1980s onwards, however, public investment in education has only averaged about 2.5 percent of GDP. Over this period the government has faced a major secessionist conflict in the Northern and Eastern provinces, requiring it to cut

investment in development activities in order to finance the military expenditures required for the conflict. The fall in the share of GDP devoted to education can be attributed substantially to the increase in defence expenditure.

Figure 10: The time trend of public investment in education



Source: Calculated from the Budget Publications of the Ministry of Finance and Planning, and the Annual Reports of the Central Bank of Sri Lanka.

4.4.3 Investment in education in Sri Lanka in comparative international context

Sri Lanka invests a relatively modest level of national income and the government budget by the standards of developing countries in education (Table 12). The country allocates the smallest share of GDP to education among all the countries shown in Table 12, apart from Pakistan and Bangladesh. The class of lower middle-income countries to which Sri Lanka belongs spends more than 4 percent of GDP on public investment in education. South Asian countries devote, on average, around 2.9 percent of national income to education. Sri Lanka also spends the lowest share of the public budget on education among the entire set of countries shown in Table 12, chiefly high performing countries, East Asian countries and neighbouring South Asian nations. Countries such as South Korea, Malaysia and Thailand, which act as policy role models for Sri Lankan decision makers, spend between 15-28 percent of public expenditures on education.

Table 12: Education Expenditure as a Share of National Income and Government Expenditures, Sri Lanka and Selected Other Countries

Country	Education Expenditure as a Proportion of National Income %	Education Expenditure as a Proportion of Government Expenditure %
Sri Lanka	2.8	8.3
India	3.7	10.7
Bangladesh	2.5	14.2
Pakistan	2.3	10.9
Nepal	3.4	14.9
Malaysia	8.0	28.0
Thailand	4.2	27.5
South Korea	4.6	15.0
Philippines	3.2	17.2
Costa Rica	4.9	18.5
South Asia	2.9	12.8
Lower Middle Income Countries	4.3	na
Upper Middle Income Countries	4.6	na

Sources: Sri Lanka, calculations from the Government of Sri Lanka, Budget Estimates, Central Bank of Ceylon Annual Reports, various issues; Other Countries, World Development Indicators (World Bank). The information above for Sri Lanka is computed from 2007 data. Other countries and regions are from the closest available year to 2007.

There are several reasons for the comparatively low level of public education investment in Sri Lanka: (a) the wide range of public social services, such as universal free health care and large-scale access to safety nets, which are rare among developing countries and compete for resources; (b) low public revenue, which has contributed to substantial budget deficits and restricted government spending; (c) relatively low teacher salaries, with Sri Lankan teachers receiving salaries about half or less, as a proportion of national income per capita, than teachers in countries such as Malaysia, Thailand, South Korea, India and Bangladesh; (d) the expansion of the capital stock of schools during the 1950s-1970s, so that there is now less need for major investment in the construction of new schools and new classrooms blocks; and (e) large defence expenditure, which absorbs a considerable share of GDP.

4.4.4 Policy targets to increase the efficiency of public education investment

The main current requirement for the constrained public resources available for education is to invest in improving the quality of general education available to children. The third theme of the ESDFP, which seeks to increase the efficiency and equity of education expenditure, has three key resource allocation targets to strengthen the efficiency of the allocation of resources and promote education quality. The first key target is to increase the share of resources allocated for education in the capital budget in favour of expenditure on higher-order spaces and assets, such as libraries, ICT facilities, science laboratories, activity rooms and multi-purpose rooms, and their associated equipment,

tools and technology. The second key target is to raise the share of resources allocated for education in the recurrent budget in favour of expenditure on higher-order processes, such as teacher development, consumable quality inputs for schools and the development of the leadership and management capabilities of school principals. The third key target is the allocation of an increasing share of the budget for maintenance and replacement activities. The expansion of resources for higher-order assets, spaces and processes are aimed at promoting, as a priority, student learning in subjects such as English, ICT, science and mathematics, which are of central importance in the labour market.

The annual targets for the ESDFP period, 2006-2010 are show in Table 13. According to the information in Table 13 the share of the education recurrent budget allocated for higher-order processes needs to rise from at least 2 percent in 2006 to 3 percent in 2010. Similarly, the share of the education capital budget devoted to higher-order spaces and assets needs to increase from at least 30 percent in 2006 to 40 percent in 2010. And the share of the education budget allocated for maintenance and replacement activities needs to increase from at least 10 percent in 2006 to 15 percent in 2010. These policy targets are currently being achieved, and even exceeded. This is a positive signal of the commitment of the country to the improvement of education quality.

Table 13: Allocation Targets for the Capital and Recurrent Education Budgets

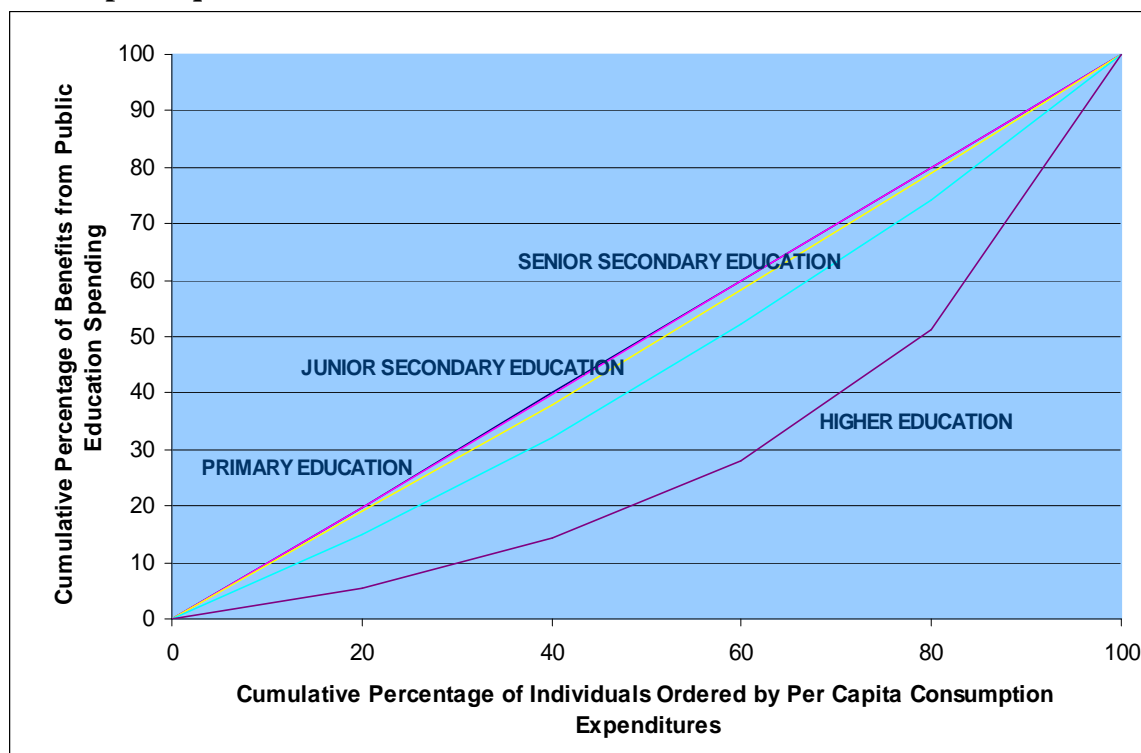
Policy Targets	2006	2007	2008	2009	2010
Higher-order processes. At least, of the recurrent education budget:	2%	2.2%	2.4%	2.7%	3%
Higher-order learning spaces and assets. At least , of the capital education budget:	30%	32%	35%	37%	40%
Maintenance, replacement, repair, upgrading and rehabilitation. At least, of the education budgets	10%	12%	14%	15%	15%
Total	40%	44%	49%	52%	55%

Source: World Bank (2005a) and Ministry of Education (2007).

4.4.5 Equity of public education expenditure

The Lorenz curves and Gini coefficients of public education expenditure, which measure the equity of public investment in education across economic groups, are show in Figure 11 and Table 14, respectively.

Figure 11: Lorenz curves of the benefits of public education expenditure by consumption quintiles



Source: Calculated from Government of Sri Lanka Budget Books and the Department of Census and Statistics, Household Income and Expenditure Surveys, 2002

Table 14: Gini Coefficients of Public Education Expenditure by level of Education

Level of Education	Gini Coefficient
Primary Education	0.4
Junior Secondary Education	2.9
Senior Secondary Education	13.2
Higher Education	50.5

Source: Calculated from Government of Sri Lanka Budget Books and the Department of Census and Statistics, Household Income and Expenditure Surveys, 2002

The Lorenz curves show that public expenditure on primary education is extremely equitable across economic groups. The Lorenz curve for primary education falls almost completely upon the forty-five degree line of perfect equality. The Gini coefficient for primary education is also very low at 0.4 percent. This high degree of equity in public investment in primary education is due to the very high levels of primary school enrolment across all economic groups. At the junior secondary education level, too, there is a high degree of equity of public education spending. The Lorenz curve for junior secondary education is close to the 45 degree line, and the Gini coefficient is low, at just under 3 percent. Once again, it is the high enrolment in junior secondary education among all economic classes which is responsible for the high degree of equity in public education expenditure at this schooling level. At the

senior secondary education level, too, there is a reasonably high degree of equity in public investment in education. The Lorenz curve is quite close to the 45 degree line, and the Gini coefficient is only 13 percent. Overall, government expenditure on general education in Sri Lanka displays a high degree of equity over economic classes. This is mainly due to the high enrolment in general education in the country.

Public expenditure on higher education is less equitable than at other levels. The Lorenz curve is a considerable way from the 45 degree line, and the Gini coefficient is about 50 percent. The lower degree of equity in public education spending at the higher education level is due to the low enrolment (about 18 percent) in higher education. The majority of students enrolled in higher education are from the highest economic class, and public investment in higher education disproportionately benefits the top consumption group. It should be observed that this is a common finding for countries across the world, including developed economies where higher education systems are far more advanced than in Sri Lanka.

4.4.6 Promoting parity of resources between national and provincial schools

The main equity challenge facing policy makers is to ensure parity of resources between national schools, which are operated by the central government, and the provincial schools, which are operated by the provincial councils. The disparity in public resources allocated to the two sets of schools is shown in Table 15.

Table 15: Average per pupil and per School Budget, among National and Provincial Schools, 2007

Province	Number of students	Number of Schools	Total Expenditure per School. (Rupees).
Western	681,617	1,288	7,489,948
Central	419,314	1,413	4,805,857
Southern	354,714	1,032	6,163,073
North-Western	385,617	1,187	5,600,248
Northern	244,888	881	4,542,359
Eastern	325,040	944	4,325,524
North-Central	224,680	772	4,533,276
Uva	223,919	795	4,910,398
Sabaragamuwa	300,598	1,076	4,506,000
National schools	676,127	326	40,056,743
Sri Lanka	3,836,514	9,714	6,469,121

Source: Balasuriya, J. (2007).

According to Table 15, the difference in the allocation of the public budget between the 326 national schools and other schools ranges from about 40 million rupees per national school and 4.3 million rupees per provincial school in the Eastern Province. Even the richest province, the Western Province, is only able to allocate about 7.5 million rupees per school, which is more than 500 percent less than the allocation for national schools.

Establishing equity in the allocations between national and provincial schools is a key future challenge for the general education system. The Ministry of Education, under the leadership of the Secretary, Ministry of Education, has initiated a dialogue with the Ministry of Finance and Planning, the Finance Commission and the Provincial Councils to improve the equity of resource distribution between national and provincial schools over time. As children attending provincial schools tend, on average, to be poorer than children attending national schools, the reallocation of resources in favour of provincial schools will improve the equity of resource allocation.

4.5 Strengthening governance and the delivery of education services

Under the fourth theme of the ESDFP, the government is seeking to improve the governance of the education system and the quality of service delivery. A novel initiative to promote equitable access and improve the quality of general education under this theme is the devolution of education management, especially to empower school communities and stakeholders, such as parents, past pupils, principals and teachers, through school based management.

4.5.1 The program for school improvement (PSI)

Under this programme the government is introducing a balanced-control model of school based management, initially on a pilot basis, with the intention of scaling up when the lessons from the pilot have been studied and the programme suitably fine-tuned. The PSI balances power between government officials, such as the school principal, teachers and local administrators, and the civil society members of the school community, such as parents and past pupils. The objectives of the PSI are to:

- (a) enable local school communities to participate in school management;
- (b) make school activities more transparent;
- (c) increase the flexibility of internal activities within schools; and
- (d) increase the resources available to schools, by enabling schools to raise funds from local communities in order to supplement the resources provided by the government.

The central feature of the programme is the increased participation of parents and local communities in the administration and operation of schools.

The PSI is being introduced in phases. In the first stage (2006), the PSI was introduced to one zone in each of eight provinces. In 2007, it was expanded to a further zone in each of the nine provinces, and to an additional zone in the Northern Province that had not participated in 2006. In 2008, a further two zones were added in each province, bringing the total number of zones participating in the programme to thirty-five at the end of 2008. A total number of 4,404 schools (45 percent of all schools) are implementing the programme in these thirty-five zones. The ESDFP plans to extend the programme to nine more zones in 2009, followed by a further nine zones in 2010.

The PSI is popular among local communities, and has helped to forge strong links between parents, past pupils, teachers and principals. The key to the successful implementation of the PSI appears to be the presence of a creative and enterprising school principal. Other important contributory factors are the presence of an active and committed School Management Committee, which can act as a catalyst, and a school which already has a reasonable level of resources.

Initially, the main focus of community participation in school management was on the improvement of physical facilities. Over time, in schools performing well under the PSI, the focus has been widened to cover both academic activities, such as the production of aids to be used in the teaching of mathematics in classrooms, the organisation of school visits to places of cultural and historic interest, and a range of cultural activities, such as art, music and dancing, and sporting activities.

The PSI, if successfully implemented, can advance equitable access to education by enabling local communities, especially key stakeholders such as parents and guardians, to participate in school management and make the delivery of school services more sensitive to the needs of local children. In particular, these stakeholders can help fine tune school activities to address the needs of different groups of vulnerable children, such as children at risk of dropping out early from primary education, and children at risk of not progressing on to junior secondary education.

5. Conclusions and Lessons from the Experience of Sri Lanka

5.1 Background

The Sri Lankan education system in the period since independence in 1948 is a success story compared to other developing countries. The country has been especially successful in providing universal access to general education and in achieving gender parity in education attainment. The key first-generation challenge of universal completion of primary education (grades 1-5) has been attained. The remaining first-generation challenge the country faces is to ensure that the proportion of students who enter grade one and complete the basic education cycle at grade nine, presently at 90 percent, rises above 95 percent over the medium-term.

The other challenges faced by the general education system are essentially second-generation challenges. The quality of basic and secondary education needs to be improved, especially in poorer regions. The national Education Sector Development Framework and Program (ESDFP) has several promising policy initiatives to improve the quality of education over time. The early evidence suggests that these initiatives are being effective, with rising learning outcomes among children in all provinces. But time is needed to transform schools and strengthen teaching and learning processes, especially in rural and estate areas. Hence, the policy reforms and initiatives under the ESDFP will require a reasonable period of competent implementation to develop the general education system. The poorer rural and estate schools, especially the Type 2 schools, represent the main challenge, and it is important that policy attention and resources be targeted at these schools.

The policy debates of the 1930s and 1940s saw the provision of access to free English medium schools for talented poor children as the 'Pearl of Great Price'. Ironically, English medium education was abolished through two reforms in the mid-1950s and the early 1970s. The impact of these reforms has been highly controversial and, on balance, is likely to have adversely affected the economic competitiveness of the country by reducing fluency in English, the *lingua franca* of the modern global economy. The government, recognising the importance of English for economic development now allows some subjects, such as science and mathematics, to be taught in English in the secondary education cycle.

The 'Pearl of Great Price' is seen today as the entire government education system which provides free general education in state schools. Over successive generations investment in education in Sri Lanka has produced substantial economic and social benefits to the country (Aturupane, 1993 and 2004; World Bank, 2005a). Education has contributed to higher individual earnings, lower poverty rates, inter-generational social and occupational mobility, better family health and fertility control, and gender development and gender empowerment (Aturupane, 2008 and 2009; UNDP, 1998). The large and varied range of

policy initiatives to provide universal access to general education has produced rich dividends for the country.

5.2 Lessons from the Sri Lankan experience

The Sri Lankan experience provides several key lessons for policy formulation to promote equitable access to general education, especially primary and basic education, which could be of interest and value for other countries. These constitute both positive and negative lessons. The former are favourable policies, which promote equity of access to education and enhance the quality of schooling, and could be emulated by other countries. The latter are unfavourable policies, which either constrain access to education or restrict quality, and should be perceived as risk-laden policies by other countries.

5.2.1 Favourable lessons for education policy formulation to promote equitable access to general education

The establishment of a complete network of primary schools within easy access of all households is the single most important policy initiative to promote equitable access to primary education. Given that primary school children are small, typically aged about 5-10 years, ease of access requires a primary school to be established in every village in rural areas. Cities and towns typically have schools, but again the government needs to ensure that poorer areas in urban centres have schools for the more disadvantaged communities and families.

A complementary policy is to provide free education in government schools, either for all children, or at least for poor children. The advantage of free education for all children is that it is easy to administer, and there is no social distinction between fee-paying children and non-fee paying children within the same school. The disadvantage is that such a policy can be expensive. The advantage of charging some fees from well-off children and targeting free education at poor children is that the policy is less expensive. Such a policy, however, has some disadvantages. The identification of poor and non-poor children is not straightforward, especially at the margin. The operation of such a system also has management and financial costs. And a social distinction can arise, within schools, between fee-paying and non-fee paying children which can discourage and demotivate the latter. Sri Lankan policy makers chose the option of providing universal free education over six decades ago, and for countries that can afford such a policy this may be the simplest system to administer.

It should also be observed that the cost of providing universal free public education is lower, in Sri Lanka, because the cultural context of the country allows boys and girls to study in the same classrooms, and hence co-educational schools are the norm. In countries where the cultural contexts do not permit boys and girls to study in the same school, and two schools need to be set up in each village, one school for boys and another school for girls, the cost of universal provision would be higher, and policy makers may be more constrained in their choices.

The provision of a package of demand-side incentives for school attendance, such as schools meals, uniforms and textbooks, as well as subsidized transport, can play a vital role in promoting equitable access to education. Such incentives which lower the indirect costs of education are especially important for poor families which have children most at risk of either non-enrolment or drop out. In addition, school textbooks are a key quality input, and assistance with textbooks recognizes the importance of the quality dimension of education.

Policy makers also need to recognize the existence of special groups of children, such as children with learning disabilities, whether physical or cognitive, and make arrangements for special education programmes. These could either be institution-based or delivered in schools with ordinary children, depending on the nature and extent of disability. In addition, a non-formal education system should be established for children who either never attended school, or dropped out early, and require assistance to develop skills needed in the labour market. Such policies to meet the needs of the various groups of children with special educational needs are extremely important for the promotion of equitable access. It should be recognized that these policies can be expensive, as the average costs of special education and non-formal education services are usually higher than the average cost of formal education services. However, the types of children served through special education and non-formal education programmes are among the most vulnerable and disadvantaged children in countries, and this needs to be borne in mind when resource allocations decisions are made.

The quality of human resources available to an education system is of central importance. School principals play a key role in promoting effective and high-performing schools. And teachers determine the quality of classroom processes and learning of children, especially at the younger age groups. Hence, a country needs to pay attention to attracting capable and competent staff as principals and teachers, and create an institutional framework which provides scope for continuing professional development, complemented by incentives and rewards for good performance.

Physical capital such as technology, teaching and learning resources, and books and reading material, are also of vital importance to complement and supplement the human resources available in education. High quality education, especially in the modern technology-intensive global economy, increasingly requires the use of capital inputs in teaching and learning. The development of relatively inexpensive IT devices, such as the low-cost laptops for primary school children, is likely to accelerate this trend further. In addition, there is a degree of substitutability between human resources and physical capital. Students with access to technology and educational resources generally need less time and attention from teachers than students with little access to such technology and resources. In consequence, schools which are relatively well-endowed with teaching-learning resources may be able to operate effectively with larger class sizes and higher student-teacher ratios. The allocation of resources within the education sector needs to take into account both the complementary relationship between human resources and education physical capital, and the substitutability between these two sets of resources.

The home learning environment and processes of children are of vital importance in achieving educational goals, including cognitive outcomes. For instance, children from homes where parents buy books and encourage reading, make time and space available for study, and assist with home work, usually perform significantly better than children from homes where such actions are absent. Educated, middle-class parents tend to create favourable learning environments at home on their own initiative. However, parents from less-educated and poorer homes often fail to create such learning environments at home. Hence, explicit measures to inform less-educated parents about the importance of the home educational environment for a child's learning outcomes can be very useful. The Sri Lankan policy framework recognised this fact relatively late. Education decentralisation to empower schools and to promote school-community interactions, especially between principals, teachers and parents, is a fairly recent initiative, which needs considerable future development. The existence, in Sri Lanka, of a tradition of strongly centralised education institutions acts as a constraint. Countries need to incorporate the importance of home learning environments and processes into their national education policy framework as early as possible to reap the full benefits of this wider and richer conception of education.

The economic policy framework should favour growth and dynamism for the full economic and social benefits of investment in education to be enjoyed. Sri Lanka, over the past sixty years, alternated between periods of pro-market policies complemented by government intervention to deliver services with public good and externality characteristics such as education and health, and to provide safety nets for the poor, and periods of strong state intervention where markets were stifled. During pro-market periods there was dynamic economic activity which provided scope for investment in education to produce returns in the labour market and benefit the country. During periods when markets were stifled, in contrast, there was low growth and little scope for investment in education to generate returns in the labour market. This even resulted in periods of social unrest, led by frustrated educated youth. Hence, a key lesson from the Sri Lankan experience is that countries which invest strongly in education should also ensure an economic environment favourable for market processes and dynamic economic growth.

5.2.2 Less favourable lessons for education policy formulation to promote equitable access to general education

The Sri Lankan experience provides some negative lessons, too, which policy makers in other countries need to consider carefully.

The policy framework in Sri Lanka stifles the participation of the private sector in the provision of primary and basic education. This has several negative consequences. It reduces the overall flow of resources into the education sector, and hence constrains the development of the education system. It is also inequitable, as children from wealthier households receive free public education when the resources devoted to them could be better used to improve the quality of education available to poor children. And it hampers the introduction of innovations and novelties into the education system, which private

schools are often able to accomplish more swiftly and flexibly than government schools. Hence, countries should allow, and even encourage, private sector participation in education, even at the primary and basic education levels, alongside the free government education system.

The excessive centralisation of the Sri Lankan education system has also been a problem, especially in the promotion of equitable teacher deployment. A decentralised teacher employment system, where teachers are directly recruited by schools and are accountable to local school communities, could enable a better distribution of teachers according to schools needs, as well as improve teacher attendance. The Sri Lankan model of a centralised and transferable teacher service runs the risk of poorer teacher deployment and higher teacher absenteeism.

Ambiguity in the roles and responsibilities of different human resource services in the education system is an obstacle for procedural efficiency and the equitable development of an education system. This is illustrated in the Sri Lankan case, where the positions of school principals are open to both members of the Sri Lanka Principals Service (SLPS) and the Sri Lanka Education Administrators Service (SLEAS). Some members of the SLEAS work as principals, resulting in vacancies in administrative and managerial positions, especially in remote rural areas. In consequence, the management of education services in these rural areas suffer, with adverse effects on the quality of education available to poor children. Hence, it is important that a country's education system has clear and unambiguous roles and responsibilities for the various human resource services. This is a fundamental pre-requisite for good governance and procedural efficiency.

Overall, the Sri Lankan experience yields extremely valuable lessons for the promotion of equitable access to general education, especially primary and basic education. There are many aspects of Sri Lanka's education system which can be emulated by other countries. There are also some aspects which suggest alternative, more promising paths for other countries.

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Report summary:

The experience of public policy in Sri Lanka has had a profound impact on the thinking of the global development community in relation to the role of education in economic development. In particular, the example of Sri Lanka helped to persuade policy makers around the world that governments can successfully develop a general education system to enable universal enrolment and completion of primary education, and provide widespread access to secondary education. This paper analyses the historical evolution of the Sri Lankan education system, discusses the policy framework for general education and discusses the performance of the Sri Lankan education system in terms of equity of access and quality. The paper proceeds to discuss the main future educational challenges facing the country.

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