STUDY ON INVESTMENT IN GENERAL EDUCATION IN SRI LANKA

NATIONAL EDUCATION COMMISSION
NAWALA ROAD, NUGEGODA
SRI LANKA
Research Series (2014) – No. 07

Study on Investment in General Education in Sri Lanka

A Research conducted for the National Education Commission

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The Transforming School Education Project (TSEP)

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Preface

The National Education Commission (NEC) commenced formulating National Education Policy for its third ten year policy reviewing cycle. As a part of the above policy formulating process NEC has commissioned ten research studies in order to identify the important policy issues in General Education System in Sri Lanka. The research teams were asked to recommend changes to the present policies where necessary and suggest new policies to the National Education Commission based on their findings.

The Standing Committee on General Education (SCGE) of NEC has identified ten different study areas in the General Education System and prepared relevant Terms of Reference (TORs) for these studies after several discussions at SCGE meetings. The research reports published in this study series were prepared over a period of around nine months by ten research teams selected for their expertise in the different aspects of General Education. The draft reports of research studies were reviewed by a panel of reviewers before finalizing the research reports.

The National Education Commission appreciates the support given by the World Bank in allocating funds from the Transforming School Education System as the foundation of a knowledge hub Project (TSEP) at Ministry of Local Government and Provincial Councils. The Commission also thanks Sri Lanka Institute of Development Administration (SLIDA) for their services provided in financial administration of the research studies.

It is hoped that the publication of these studies will contribute to the extension of the knowledge base necessary for educational change and will stimulate interest and participation in improving the quality of education in Sri Lanka. These studies can also provide points of departure for future researches.

Prof Lakshman Jayatilleke
Chairman
National Education Commission

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1 Introduction

Socio-political and economic issues pertaining to financing education is a widely discussed and debated issue in many public forums in Sri Lanka, particularly in recent years. All those discussions and debates are based on two principles of financing adequacy and equitability. For example, trade union action of the Federation of University Teachers' Associations (FUTA) in 2012 was based on demand for increasing public investments in education to 6% of Gross Domestic Product (GDP). Inadequacy of education financing is blamed for the deterioration in the quality of education. Moreover, inequitable resource allocation between urban and rural schools was the key issue in the second youth uprising in Sri Lanka in the 1990s[1]. Yet, efficiency of resource utilization is hardly discussed in social forums. Nevertheless, it has become a key concern of policy makers. Most of the changes in school management and sources of school financing are proposed to increase the efficiency[2].

This study focuses on sources of education finance and the relative contribution of each source to the total. At the same time, implications of thepresent financing mechanism on equity and efficiency of the education sector of Sri Lanka are also examined. This study examines the issues pertaining to education financing at three levels; financial allocation, resources allocation and education output distribution.

1.1 Objectives of the Study

The main objective of the study is to explore the present state of financing of general education in Sri Lanka. Section 7 of the TOR of the proposed study highlights six sub-objectives. These are;

- To inquire into the adequacy of financial contribution by the state, including donor funding, to education currently.
- To inquire into the funding received from other sources including out of pocket spending by parents on education.
- To analyze the standards and criteria on supply of education resources taking into account requirements and costs.
- To determine the criteria on allocating funds for education on an equitable basis.
- To study and identify new approaches to rationalizing the use of educational welfare provisions

[1] One of the slogans of the youth uprising in the 1990s was "*kolambata kiri gamata kekiri"* meaning that schools located in Colombo have all facilities and no such facilities are given to other schools.

[2] School Based Management (SBM) and various alterations to school development funds and alterations for financial regulations are aimed to increase efficiency.

- To recommend a new mechanism for financial management, planning and monitoring in the field of education so as to financially empower the schools.

1.2 Scope of the Study

This study is limited to examine only the general education system of Sri Lanka. Financing for quality improvement of school education is the key concern of this exercise. Therefore, universities and technical education are beyond the scope of the present study. However, the quality of general education cannot be guaranteed without supplementary services provided by stakeholders such as the Department of Examinations, National Institutes of Education and teacher training colleges. Considering the importance of these supplementary services financial information of these services are reviewed using aggregate data available from the Treasury. Information collected from field visits further explores the aggregate financial data on supplementary services.

far as the sources of finance are concerned the Ministry of Education (2014) has summarized all the major sources. Table 1 reproduces it below. In order to have a comprehensive coverage of the issues pertaining to the scope, coverage of all these is vital. However, some items are dropped from the analysis due to difficulties in data collection. Funds available from other government bodies serving the general education system and financial information on private schools are a few areas not covered due to limited information. However, some indirect measures cover the dropped elements from the analysis.

Table 1: Sources of Financing General Education in Sri Lanka

Sector	*Ministry/Institute*	*Source*
Government	Ministry of Education Ministry of Education Services Provincial Councils Provincial Education Ministry	S1: Consolidated Fund/ Provincial Council Funds S2: Grants from Cooperative Bi-lateral and Multi-lateral Projects Other Ministries and Government Bodies Quality Input Grants etc.
External Sources		Registered and Approved NGOs Parents/ Well Wishers/ Alumni Associations
Other		Revenue from lands and buildings Collection of school development fees Generated income from school activities
Personal	Households	Personal investments on education

Source: Ministry of Education (2013)

2 Research Methodology

For the purpose of this analysis primary and secondary data and both quantitative and qualitative (focus group discussions, face-to-face interviews etc.) data are used. All the data were analyzed within a specific conceptual framework. The conceptual framework was chosen to suit the research objectives. Moreover, to achieve the said objectives, both empirical and conceptual assessment are required. Conceptually, financing education is governed by three principles, adequacy, efficiency and equitability. In the context of Sri Lanka, considering the practical experiences, specially in the operational mechanism of financing of education, transparency and corruptions should also be considered in order to achieve the last objective. Financial empowerment of schools should make sure that each school will have adequate funds. Each school should have the capacity to utilize funds efficiently and effectively and the system should be transparent and free of corruption.

2.1 Principles of Education Finance

The three principles of education, adequacy, efficiency and equitability, suggest that the amount invested in education must be sufficient to provide the required minimum educational facilities and the resources invested must be used efficiently and the education facilities must be available for all citizens with no discrimination. In the present study, these three issues are examined. In addition to that the transparency of financial management is also explored.

Adequacy means whether the financial allocation for education is adequate to meet its intended needs. Traditional measures of adequacy are the percentage of education investment to GDP and the percentage of total government expenditure on education. There are accepted norms on education expenditure to GDP ratio and is accepted to be at 6 percent and 20 percent of government expenditure is expected to be on education. However, these are only norms. No rule or any statistical or philosophical foundation for these norms. There are arguments for and against them. No general agreement has been reached on the thresholds for those measures. However, these measures can be used to compare between countries. Another measure that one can easily calculate and interpret is per-pupil expenditure on education. In addition to the statistics on financial allocation, facilities available in schools are also used to understand the adequacy of education finance.

The measures described above are only preliminary indicators of adequacy of financing. Therefore, some alternative measures are also recommended. Most of the alternative measures are based on education inputs such as teachers and other resources and education outputs such as age specific enrolment rates and percentage of pupils completing given thresholds, for instance, GCE O-L and A-L.

Under the broader criteria of efficiency, efficiency of financial allocation and effective usage of resources are considered here[3]. Conventional measures like Cost-Benefit Ratio (CBR) and Cost Effective Measures are difficult to use in education financing. Hence, some indirect measures indicating school performance such as failure rates, dropout rates and delays in progress are recommended.

Equitability of resource allocation among various social, economic, geographic and demographic sub-groups is the main concern here. Disparities in resource allocation between districts, schools and ethnic issues are considered.

2.2 Data and Sources of Data

Both primary and secondary data, quantitative as well as qualitative data are used for this analysis. Most of the data at aggregate level are available from secondary sources. Treasury allocations, provincial allocations and local and international donor funds are available from budget estimates.

School development funds, parents' investment and alumni contributions etc. are not readily available for researchers. Limited information pertaining to school generated funds is available in School Census. Family expenses on education are available from The Household Income and Expenditure Survey (HIES).

Data on resource availability in schools are collected in School Census conducted by the Department of Census and Statistics on behalf of the Ministry of Education annually.

School census data records for years 2005 and 2012 were made available for the researchers by the Ministry and aggregated data were also available in the Ministry of Education web page. Comparison of the researchers' own calculations with similar figures available in the Ministry web page found that some of the aggregated statistics are not consistent with our calculations. For the consistency of the analysis in this report we used our own calculations throughout and referred to the differences. The Handbook of the Department of Examinations provides a wealth of information on student performance at public examinations. It could be argued that students' performance at public exams relates to the efficiency of the formal education system.

In addition to quantitative data, qualitative data were also collected through focus group discussions and various stakeholder interviews. For this purpose, group meetings with school principals, zonal and provincial education administrators were conducted in Galle, Bandarawela and Kurunegala Districts. School visits, discussions with school principals, vice-principals and other teachers assisting principals on financial matters were also carried out to collect qualitative information at school level and various aggregate levels. Discussions

[3] In economic terms both *allocative efficiency* and *technical efficiency are used?* Allocative efficiency refers to optimal allocation of resources and technical efficiency refers to optimal utilization of resources.

with officers at the Ministry of Education and selected officers at provincial level were also conducted for this purpose. Data on resources allocation and output distribution are available from School Census and the Department of Examinations.

2.3 Methodology

Adequacy of education investment is measured in terms of education expenses to various macroeconomic variables such as GDP and Government Expenditure. In this regard, education economists have also suggested using various input and output based indices as well. For example, adequacy of resources available in schools can also be used for this purpose[4]. In that context, various input variables such as school infrastructure development in terms of common facilities (classrooms, electricity, telephone, water and sanitary facilities) and education related facilities (science labs, IT rooms etc.) are analyzed. Percentages of students qualifying at national examinations (Scholarship, GCE O-L and A-L) are examined as output measures of education financing. Wherever possible time trends of selected indicators are explored.

Efficiency of financing is examined at three levels; efficiency in financial disbursements, funds utilizations and effectiveness of financing. Mostly the discussion on efficiency in this report is based on focus group discussions, literature and study of relevant circulars. To understand the equity related issues we have used geographical composition and various other compositions of education finance.

2.4 Limitations

The scope of the study and empirical validity of some of the findings of the study are restricted by certain conditions due to data limitations as described under the scope of the study. Unavailability of financial data for private and international schools is a serious limitation of this exercise. Therefore, the empirical findings and their interpretations are valid only for public schools. According to the statistics available this covers over 90 percent of registered schools and similar percentage of students in general education. However, findings of this study cannot be used to analyze the situation in private and international schools.

The reliability of school level data is questionable. Data on generated funds are not available at national level. Such information is gathered from School Census and similar information was also gathered from selected schools during the field visits. As the income generating activities at school level are very complicated it is practically difficult to collect all the information pertaining to this category. Financial information under this category would be seriously under reported.

[4] Resources availability is directly related to the funds availability. The relationship between resource investment and education output are also theoretically established. However, following Coleman *et al* (1966) there are hundreds of empirical observations that where input-output relationship in education investment is not obvious.

3 Education Finance Mechanism in Sri Lanka

3.1 An Overview

This section of the paper reviews both types of literature to give an overview of the mechanism of education financing in Sri Lanka and to establish a conceptual framework for the present analysis.

A comprehensive review of education financing in Sri Lanka is available in Arunathilake and Jayawardhane (forthcoming), Arunathilake and Jayawardhane (2009), CED Sri Lanka (2008) and Arunathilake and De Silva (2004). Some theoretical and technical matters related to the subject is available in UNESCO (2002).

CED Sri Lanka (2008) has identified several sources of funding for public schools in Sri Lanka. Salaries and Quality inputs are the major funding received through the Central Government or through Provincial Governments. Contribution by Members of Parliament from their budgetary allocations and contributions by the Ministry of Economic Development should also be counted. There is no data at national level for these allocations. In many cases, such allocations are based on special projects at school level. Contributions by the international donor community is also a significant contribution. School Development Fund (SDF), Alumni Associations and various other generated funds by schools also play a vital role in it. On top of all these, parents also invest in the education of their children.

Most of the recurrent expenditure is provided from Treasury funds through the central government or through provincial governments. Funds available from various projects financed by International Non-Government Organizations (INGOs), Non-Government Organization (NGOs) or IFIs are also available. Among them, grants received from the World Bank, Asian Development Bank (ADB) and Japan International Agency (JICA) are prominent. All these sources are also channeled through the Treasury.

Apart from teacher salaries and Education Quality Inputs (EQIs) all other grants from the central or provincial governments are based on School Development Plans (SDPs) prepared by schools at five year intervals and annual rolling plans. These plans identifies resource requirements including infrastructure requirements. This is theoretically all right because it allows the schools to decide their development plans. However, in the field visits it was clearly observed that there are several practical difficulties in implementing it. First it is the practical difficulties faced by schools in preparing and implementing the development plan. Most of the school principals are met in field visits informed that they had no problem in preparing the plan. All the principals are trained for it and clear instructions are given on that. However, it is observed that no school dedicated staff is available for planning, monitoring and implementing the plans. All involved teachers work on a volunteer basis. Yet those teachers had not even

been released from their teaching duties to perform these tasks[5]. Therefore, the sustainability of this process without relevant staff is questionable.

Another problem the respondents identified is that in many circumstances inefficiencies in funds disbursement has made the situation worse. Most of the responding principals reported that they received such funds late and the amount given was less than the amount demanded[6]. Therefore, they cannot implement the full plan and there is no time for them to spend the allocated amount due to delays in funds disbursement. In general, most of the principals were under the impression that the funds allocation was not based on the school development plan. Therefore, they have the impression that preparation of school development plans is wasted effort.

Most of the difficulties highlighted by participants are already addressed by the latest revision of the planning and procurement guideline in 2014. The current mechanism of financing and school development plans is clearly stipulated by the Ministry of Education (2014). This is the revised and amalgamated version of the school development and finance circulars of School Development Circular of 1982/02 and Quality Inputs Circular of 2006/16. The new circular has made several changes to the existing mechanism. The major changes are given below.

- **Amalgamation of all bank accounts into one:** According to the new circular a school can have only one bank account. That is the school development account. In addition to that school alumni associations can maintain separate bank accounts.
- **Form three levels of management bodies:** The new circular has suggested forming three school level management bodies. The School Development Society, School Development Committee and School Management Committee. Functions and memberships of each body are clearly defined.
- **Maximum Terms of Membership:** The new circular has restricted the length of membership of parents and alumni members in the school development committee to four years.
- **Membership Fee for School Development Society:** This has allowed school development societies to determine a membership fee from parents and alumni members. The fee can range from Rs. 50 to Rs. 600. This has become a critical issue in many public and political forums. However, the opinion of school principals on this is that no issues has been created on this. Most of the schools have adopted the new membership fee structure in consultation with the members of the School Development Societies.

[5] This may not be a serious problem for large schools where deputy principals are assigned for this task and clerical staff is also available. However, for the majority of schools it is not an easy exercise.

[6] Total amount demanded cannot be expected. However, the deduction seems to be *ad hoc*. It is advisable to allow schools to reschedule the plans prioritizing the activities after the actual allocation is made.

- **Guideline on Spending Generated Funds:** The new circular has provided clear guidelines on the expenses of the generated funds. As far as the flexibility of school management is concerned, this is an appreciable revision. Most of the principals are of the opinion that it has given more flexibility to school management bodies on handling finances. One of the criticisms against the existing system was that it was rigid on certain expenditure items and therefore, finances allocated for certain votes could be used whereas for certain others allocated funds were not adequate. Under the new guidelines School Development Societies have more freedom in this regard. Under this provision, among others, schools are allowed to purchase various curriculum related materials such as teaching aids, books and sports items and expenditure limits have also increased.

The new guidelines have attempted at making the school based management a realistic effort. However, two of the challenges of the school based management are still valid. First it is that the success of this system entirely depends on human resources available to schools from its membership. It is anticipated that this system may increase the disparity among schools because poor schools will have challenges in finding the required skilled persons to run the School Development Societies whereas rich and popular schools will have an advantage over them. According to the School Census 2012 there are 6,298 schools (out of 9,905 public schools) which are categorized into "not congenial" to "very difficult" categories. Whatever the amendments to the relevant circulars, without provision of manpower to handle school development activities will hamper the development of the majority of those schools.

3.2 Adequacy of Financing

This section of the paper addresses the issues pertaining to adequacy of education financing. Both aggregated financial data and input- and output-based indicators are used for this purpose.

3.2.1 Adequacy in Financial Allocations

Since the mid-1950s, investment in education has been one of the key priorities of public finance in Sri Lanka. As envisaged in many public policy documents, public provision of education aims at promoting equity, social mobility, human capital and economic development. Individuals also undertake investment in education, in addition to the above mentioned objectives, to improve employability, earnings and social status. This section examines the nature and magnitude of investment in education with special focus on public investment in education in Sri Lanka.

Public Education Expenditure from an International Perspective

Table 2 reports public expenditure on education relative to GDP. Accordingly, size of the public expenditure on education remains around 1.86 percent relative to GDP (7.3 percent relative to total public expenditure) in Sri Lanka in 2010 and this figure is below the averages recorded by the lower middle income country group to which it belongs. Moreover Sri Lanka's public education expenditure, relative to GDP, is even below the average of the low income country group. Detailed country-wise data show that Sri Lanka's public education expenditure remains low compared to her neighbouring South Asian countries as well as most South-East Asian countries. However, it is now debated whether these indicators are comparable across countries. This is because public expenditure on education may not be measured using the same standards and definitions across different countries. Hence, readers should be cautious in taking into account financial allocations along with the physical infrastructure availability at school level before making a final judgment on resource availability. Many highlight several reasons for low public expenditure allocation for the education sector such as (a) Sri Lanka providing several services (such as health) through public funds compared to other developing countries, (b) most of the investment in infrastructure made in the 1950-60s in Sri Lanka, and (c) low level of public revenue hence a large budget deficit. Civil war also was often highlighted as one of the reasons for low public expenditure allocation for education. However, it is evident that the end of the war has not resulted in increasing public expenditure allocation to education.

Table 2: Education Expenditure As % of GDP by Income country Groups 2010

Country/Group	Public spending on education, total (% of GDP)
Sri Lanka (a)	1.86
Low income country group	4.16
Lower middle income country group	4.26
Upper middle income country group	4.88
High income country group	5.59

Note: (a) it remains around 2.5 if all public allocations, directly through Ministry of Education as well as through other Ministries are taken into account.

Source: World Development Indicators online Database and Ministry of Finance, Sri Lanka

More important, public education expenditure, relative to GDP as well as relative to total public expenditure have declined further in recent years (see Figure 1). Public education expenditure remained around 3 percent of GDP before 2007 and it declined continuously starting from 2008. Reduction in expenditure is drastic with respect to capital expenditure. Adjustment of budget allocation was made for many ministries in 2008 in order to finance the civil war as it was required to allocate huge amounts of money as defence expenditure. However, the end of the civil war has not yet resulted in returning at least to its previous expenditure position, let alone more expenditure on the education sector.

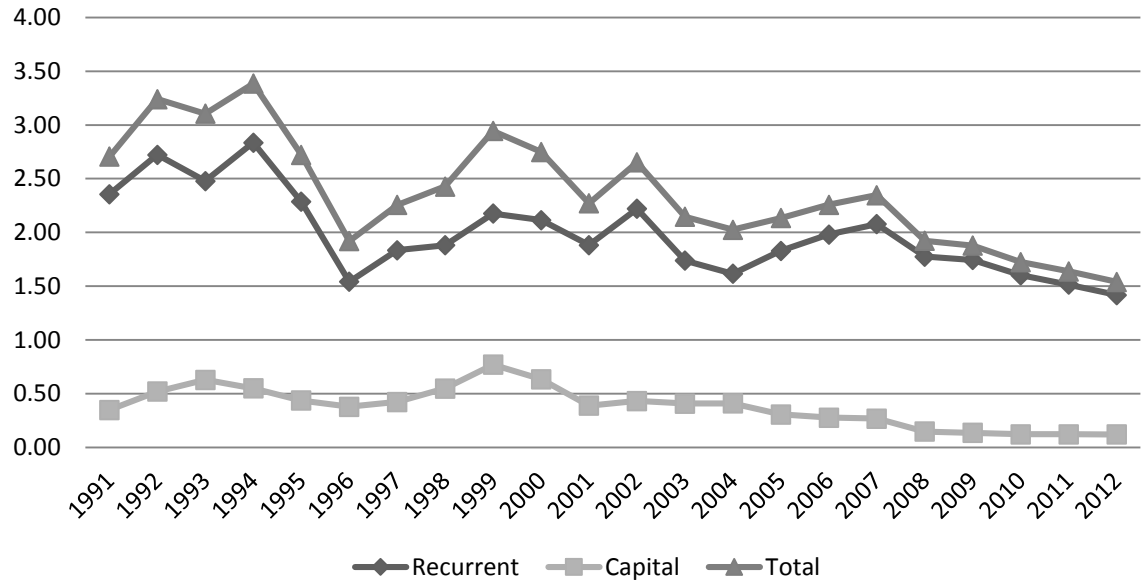

Figure 1: Public Education Expenditure (as a % GDP)

Source: Budget Estimates, Ministry of Finance and Annual Report (various issues), central Bank of Sri Lanka

In 2012, the government allocated around 2.28 percent to education in taking into account all the budgetary allocations for education. Distribution of this fund is given in Figure 2.

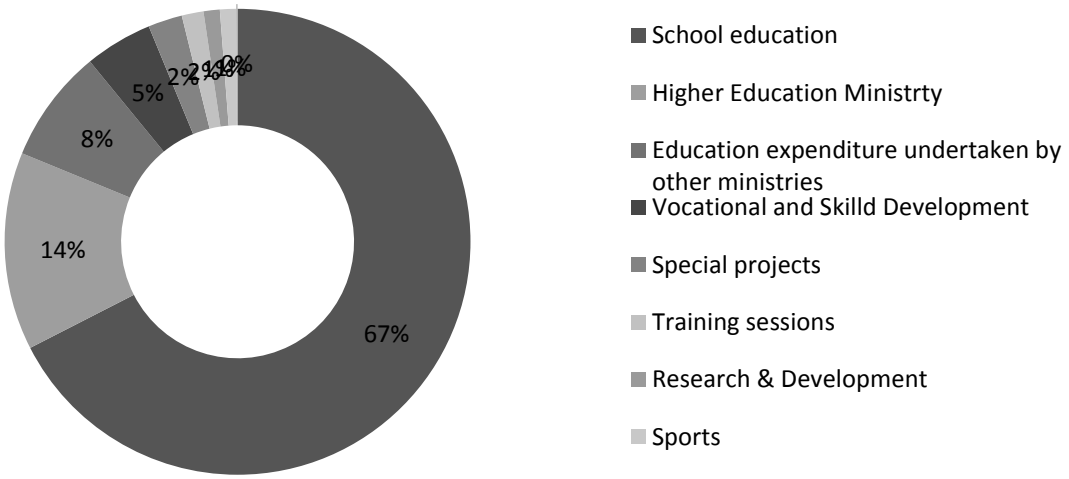

Figure 2: Distribution of Education Related Public Expenditure - 2012

Source: Budget Estimates, Ministry of Finance

As Figure 2 shows around 67 percent of public expenditure on education related services is allocated for school education whereas higher education is allocated around 14 percent. Other ministries also allocate expenditure on education services covering schools, universities and vocational education (8%). For vocational training, around 5 percent of total allocation is made in 2012.

Figure 3 shows allocated and realized amounts of capital expenditure for general education. It shows that the allocated amount is under-utilized in almost all years and the situation is relatively worse in recent years. One of the reasons for under-utilization is the delays in funds reaching either the line ministry or the provincial councils from the ministry of finance. Further information on this will be presented under efficiency of education finance.

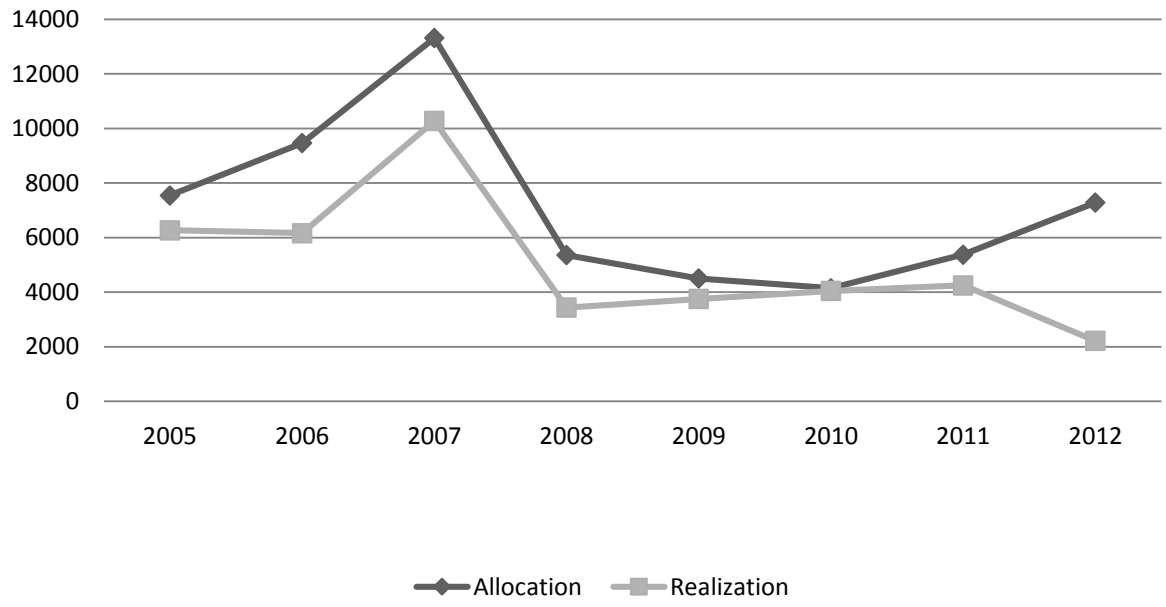

Figure 3: Capital expenditure (Rs. Mn)

Unit Cost Analysis

Table 3 reports data on provincial level education expenditure allocation for recurrent payments and capital goods and unit cost. It is evident that relative to the total budget, capital expenditure allocation in the Western and Central provinces remains low showing that the school infrastructure remained already well developed in these two provinces. Moreover, in terms of unit cost, recurrent as well as capital cost is lower in the Western Province compared to other provinces. Next to the Western province, the Central province recorded a low unit cost. The highest unit cost is reported in the Uva Province. The main reason behind the unit cost difference is the scale difference. The Western and Central

Province schools are relatively crowded thereby giving the economies of scale effect. On the other hand capital expenditure is relatively low in those two provinces owing to their self-generating capacity which requires limited intervention by government.

Table 3: Total General Education expenditure by Provinces (a)

	Recurrent (Mn)	Capital (Mn)	Total (Mn)	Recurrent per Student	Capital Per student	Total per student
Western	14,389	517	14,906	20,103	722	20,825
Sabaragamuwa	7,751	543	8,294	26,014	1,822	27,837
Uva	6,334	585	6,919	28,371	2,620	30,992
North Western	9,506	510	10,016	23,904	1,282	25,187
Southern	9,100	477	9,577	26,050	1,366	27,416
North Central	5,141	435	5,576	21,660	1,833	23,493
Central	10,109	532	10,641	23,193	1,221	24,413

Source: Financial Year Books of respective provinces. Data for Northern and Eastern Provinces are to be included

Table 4 reports recurrent expenditure on education per student, directly into primary and secondary education both at national and provincial levels in 2012. Both at national and provincial levels, secondary education is allocated a relatively higher portion compared to primary education. Obviously this is due to the fact that the secondary education sector needs quality inputs in terms of human resources and other inputs utilized in the classes and labs. Unit cost analysis shows that the unit cost for primary education is relatively low for national schools as well as unit cost both at primary and secondary level remains low in the Western and Central provinces relative to other provinces (not reported in the table)

Table 4: Education Expenditure (Recurrent) by Primary and Secondary Education

	Primary Education	Secondary Education
Western	17,186	21,300
Uva	16,844	36,287
Northern	19,365	23,809
North Western	16,813	28,355
Southern	18,346	32,361
Central	18,014	26,070
National	16,135	19,501

Source: Financial Year Books of Respective Provinces

Figure 4 shows the unit cost on other educational services such as the school nutrition programme, textbooks, uniforms, scholarship, and season tickets. It is

evident from the figure that unit costs remain stable in most cases since 2009 indicating erosion of the value of such provisions in real terms. As transport subsidy, the government bears around Rs. 4,500 per month whereas for the nutrition programme it costs the government around Rs. 3,500 per student. The lowest unit cost is reported for providing textbooks and uniforms and they remain more or less stable over the years. However, it is important that the school nutrition programme, season tickets and scholarships do not cover many students as those programmes are targeted for needy students.

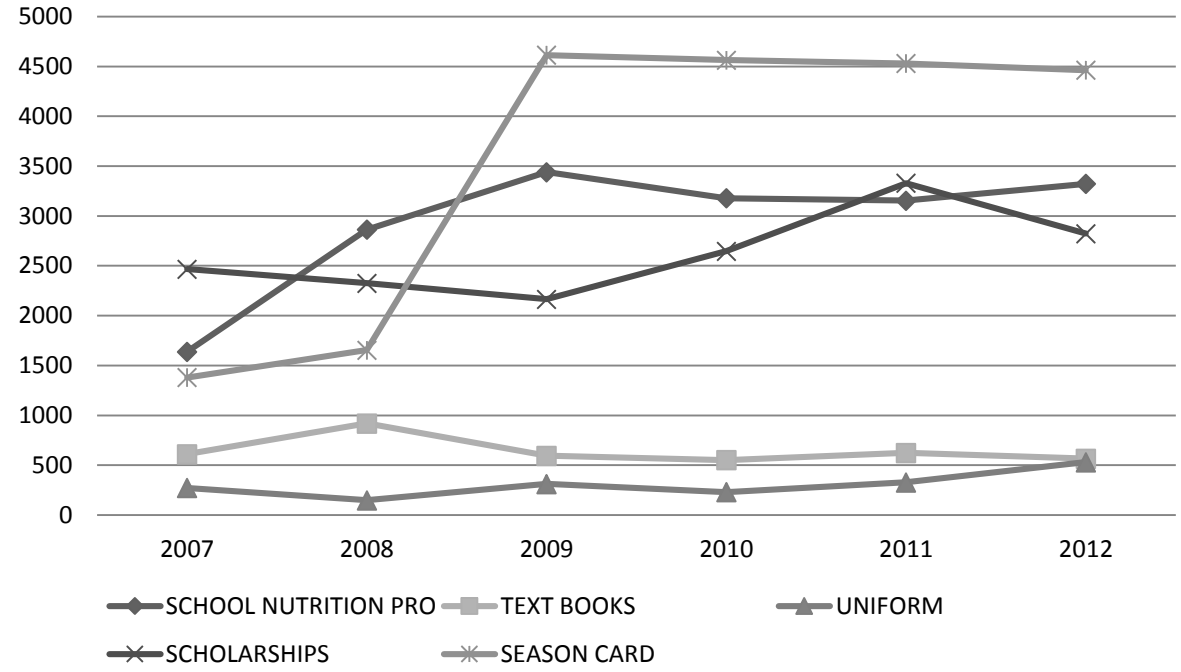

Figure 4: unit cost on other educational services

Source: Budget Estimates, Ministry of Finance

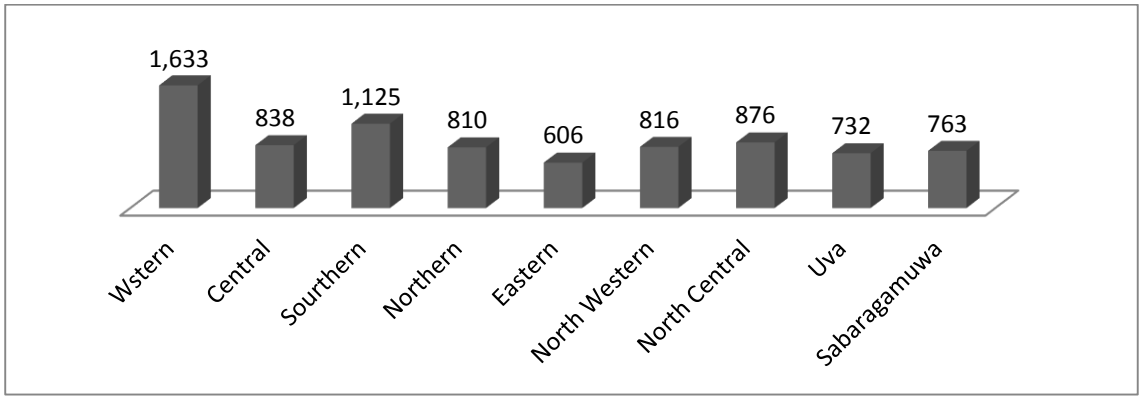

Figure 5: Private Investment in Education (Per Student in 2009/20)

Source: Household Income & Expenditure Survey, 2009

Table 5 reports various education related expenditure items undertaken by an average family for the survey years of 2006/07 and 2012/13. Data show that a

major fraction of the education budget of a family is allocated to private tuition followed by schooling related transport expenditure. For instance, private tuition expenditure accounted for 31 per cent of the total education related expenditure in 2006/07 and it increased to 36 per cent by 2012/13. It should be noted here that the average monthly expenditure on each expenditure item is calculated by the Department of Census and Statistics of Sri Lanka by dividing the total expenditure under each item by the total household in Sri Lanka. Hence, these figures may underestimate the actual expenditure borne by a household since all households do not have school going kids. Total expenditure on each item could be calculated by multiplying each expenditure item by the total number of households each year. On that basis, expenditure items such as expenditure on international schools remain very low because only a small fraction of the total households send their kids to international schools. Interestingly, school facility fees, in relative terms, remain constant in the wo survey years. According to CED Sri Lanka (2008), personal expenditure on education is nearly 30 percent of the public expenditure on education[7].

Table 5: Average Monthly Education related Expenditure

Item	*HIES 2006/07*		*HIES 2012/13*	
	Value (Rs.)	**As a % of total**	**Value (Rs.)**	**As a % of total**
Exercise books and stationery	104.62	13%	151.89	9%
Educational newspapers and magazines	17	2%	30.96	2%
School text books	10.89	1%	19.13	1%
School facility fees (government)	13.6	2%	36.24	2%
School fees (private)	45.85	6%	53.63	3%
School fees (international)	NA	NA	99.24	6%
Tuition fees	247.03	31%	637.42	36%
Boarding fees	22.59	3%	19.63	1%
Higher education course fees	51.96	6%	137.63	8%
Vocational training course fees	54.31	7%	107.78	6%
Pre-school fees (KG)	NA	NA	58.24	3%
Examination fees	NA	NA	45.62	3%
Transport (schooling/pre-schooling)	155.62	19%	314.87	18%
School uniforms	23.49	3%	40.46	2%
Other education expenditure	53.85	7%	32.73	2%
Total	**800.81**	**100%**	**1785.47**	**100%**

Source: Household Income & Expenditure Survey, 2006/7 and 2012/13, DCS

[7] If the government expenditure to GDP ratio is adjusted to include personal expenditure too, the ratio of education expenditure to GDP will be 2.42 percent still well below the low income country average.

3.2.2 Adequacy in School Resources

This section of the report explores the resource availability and its trend in schools. Tables 6, 7 and 8 summarize findings on resource availability for schools in 2005 and 2012. All theses information is extracted from School Census for the two years.

Table 6: Improvements in School Infrastructure from 2005 to 2012: Selected variables

	2005	2012
Total Number of Functional Schools	9,723	9,905
Number of Schools without electricity	3,420	1,490
Number of Schools without Telephones	8,172	6,827
Number of Schools without adequate rest room facilities for teachers	9,231	9,120
Number of Schools without Water	2,668	1,583
Schools with no good sanitary facilities	580	155
Schools with no Playground	2,948	3,590
Schools with no Principal's Bungalow	8,531	NA
Schools with no Teacher's Quarters	7,885	NA
Schools with no Hostels	9,574	9,725

Source: School Census Data 2005 and 2012

Table 6 reports the development in school infrastructure facilities. In general there is an improvement in school infrastructure during the period. It is noticeable that electricity, telephone, water and sanitary facilities show an impressive growth. However, as compared to the needs of the system it is obvious that the facilities are still grossly inadequate. For example, there were 3,420 schools without electricity in 2005. In 2005 there were 8,172 schools with no telephone connection. In 2,668 schools there was no proper water supply. For the year 2012 statistics for the same facilities are 1,490 (electricity), 6,827 (telephone) and 1,583 (water) respectively.

It is further noticed that there were 589 schools without acceptable sanitary facilities in 2005. This number decreased to 155 in 2012.

Table 7: Improvements in Education Related Infrastructure from 2005 to 2012

	2005	2012
OL Labs	2,233	3,028
Science rooms	1,720	1,893
Mini Labs	1,093	702
Activity rooms	588	1,080
Commerce rooms	91	NA
Home Science Rooms	1,598	1,868
Agriculture Units	679	NA

Vocational Skills Units	397	399
Multiple Service Units	759	839
Computer Labs	1,196	5,701
Teach Computer	NA	2,326
Computers	22,078	52,020
Math Labs	NA	170
Math Rooms	NA	262
Arts rooms	567	NA
Music Rooms	1,218	NA
Dancing Rooms	1,166	NA
Home science rooms	1,549	1,868

Source: School Census Data 2005 and 2012

Time trend of learning related infrastructure facilities in public schools in Sri Lanka is reported in Table 7. As the questionnaire changed from 2005 to 2012 some variables are reported only for one period. Of the variables reported for both years annual growth is reported in the last column. The most impressive growth is reported in computer labs. However, as the format of the questionnaire changed from 2005 to 2012, this should be interpreted carefully. In the 2005 questionnaire, the number of computer labs were directly counted (question 9.3). This question has been revised in the 2012 questionnaire and a new question is added on computer lab facilities (question 62). In fact the question in the 2012 questionnaire is more specific about availability of computer facilities for students. In 2012 data were collected on whether the school conducts computer courses for students and it was indicated that such courses are conducted in 2,326 schools[8]. It is further observed that the number of computers available in the public schools system has increased from 22,078 in 2005 to 52,020 in 2012. As reported these are the numbers of computers in good working condition.

According to Table 7 all learning related infrastructure facilities except mini labs have increased from 2005 to 2012. Perhaps this would be due to the upgrading of mini labs into OL labs or Science rooms.

Table 8: Improvements in AL Science Education Facilities

	2005	2012	Growth
Dual Unit Labs	285	356	3.56
Chemistry Labs	332	437	4.52
Physics Labs	325	395	3.08
Agriculture Labs	85	184	16.64

[8] Quality of the program and contents taught should be studied separately to asses this development further.

Bio/Botany/Animal Science Labs	297	355	2.79

Source: School Census Data 2005 and 2012

Table 8 shows number of various types of science labs in the public schools system in 2005 and 2012. All are in an upward trend and the most impressive growth is recorded in agriculture labs.

Tables 6 to 8 report various physical resources available in schools and their time trends. In most of the cases progress is observed. However, as far as the needs of the sector are concerned (on per pupil base) inadequacy of physical facilities is still a burning question.

Table 9: Human Resources (Admin assistance and support) Stock and Progress over time in Public Schools 2005 to 2012

Item	2005			2012		
	Permanent	Contract	Total	Permanent	Contract	Total
Clerks	323	80	403	138	144	282
Typists	112	99	211	11	36	47
Hostel wardens	71	45	116	61	99	160
Librarians	140	17	157	93	2	95
Management assistants	3,220	5	3,225	539	3	542
Documentation Assistants	419	2	421	396	13	409
Library Assistants	502	66	568	250	33	283
Data Collecting Officers	57	13	70	60	56	116
Other non-executives	31	25	56	64	43	107
Lab Assistants	1,105	31	1,136	1,402	36	1,438
Lab Laborers	522	27	549	580	35	615
Security	1,692	777	2,469	2,988	836	3,824
Office assistants	567	59	626	736	70	806
Laborers	2,512	147	2,659	3,982	169	4,151
Garden Laborers	213	64	277	149	68	217
Sanitary Laborers	948	227	1,175	1,031	236	1,267
Cook	202	92	294	224	56	280
Drivers	16	49	65	12	67	79
Other minor	227	143	370	134	231	365
Development Assistants				207		207
Financial Assistants				744		744
Planning Assistants				70		70
Project Assistants				309		309
Library Laborers				1,337	34	1,371

Total	12,879	1,968	14,847	15,517	2,267	17,784

Source: School Census 2005 and 2012

Despite the minute increase of the numbers overtime, it is observed that the administrative and academic support staff in public schools is far below the numbers required. For example, to serve more than 9,000 public schools there are less than 500 clerks and typists. The number of librarians in the system was less than 200 in the year 2005 and according to the census records it has further dropped to 95 in year 2012. To serve more than 9,000 schools there are only around 1,000 sanitary workers in the system.

An inventory of all administrative support and minor employees in public schools in 2005 and 2012 are reported in Table 9. For each year data is reported in three columns. The first column in each year reports the number of permanent employees (cadres) in each category. Contract employees paid out of the school development fund etc. are in column two. Column three reports the sum of the two numbers. Out of a total administrative assistants and minor employees over 80 percent is permanent. All together only 13 percent of employees are recruited from schools development funds. In general this is the situation for the year 2012 too. Table 10 shows that the school development fund is used to recruit only some types of employees such as clerks, typists and drivers.

In order to implement school based management effectively it is essential to have such staff in adequate numbers. It is observed that schools are allowed to hire contract workers. Table 10 shows that schools have not used that facility. Only some schools with sufficient school development funds can recruit such workers on contract basis. It seems that in many schools teachers are assigned to perform some additional tasks. For example, the librarians service, clerical and typists services are also assigned to the teacher service.

Time trend of teachers, principals and other academic related staff is reported in Table 10 below.

Table 10: Human Resources in Public Schools in Sri Lanka 2005 – 2012

Item	2005	2012
Number of Qualified Principals (SLES and SLPS)	9,560	8,382
Number of Teachers	187,339	223,333
Number of Graduate Teachers	51,929	86,751
Number of Trained Teachers	127,936	128,152
Number of Untrained Teachers	4,050	5,833
Number of Trainee Teachers	1,489	2,597
Number of Other Teachers	1,935	NA
Number of English Teachers	20,766	20,417
Number of Science-Maths Teachers	24,070	25,192
Number of AL Science Teachers	3,561	4,456

Number of IT Teachers	495	1,023
Number of Schools with Counseling Service	604	1,695
Number of Students	3,942,412	4,186,808

Source: School Census, 2005 and 2012

As far as the numbers are concerned, in general provision of academic staff (teachers) is at a very satisfactory level. Pupil-Teacher Ratio (PTR) is around 21 in 2005 and it is further dropped to 19 in 2012. However, pupils per trained teacher were around 30. Numbers of English and Science-Maths teachers at primary and secondary levels are found inadequate. In 2005 there were 190 pupils per English teacher and it was further increased to 205 in the year 2012.

Table 11: Other Engagements by Fulltime Academic Cadres

	2005	2012
Excess	4,097	1,033
Fulltime Released/on leave	4,470	15,753
No Professional Qualifications	13,131	42,985

Source: School Census 2005 and 2012

Table 11 shows that there were nearly four thousand excess teachers in all the public schools in Sri Lanka in 2005 and this number dropped to 1,033 in 2012. This does not mean that there are more teachers in the system than required. There are excess teachers in some schools while there are some schools with inadequate numbers of teachers. Various compositions of this will be examined in the next section of this paper.

There were over 4,000 teachers either released fulltime from their services or on leave in 2005 and this number increased to 15,753 in 2012. This is the sum of codes 19, 20, 21 and 22 of column 17 of the teacher information schedule in 2005 and column 19 of the same in theyear 2012. As a percentage to total teachers, the number of teachers released or on fulltime leave has increased from 2 to 7 percent over time.

Another important observation is that there were 13,131 teachers without any professional qualifications in year 2005 and this number increased to 42,985 in 2012. As a percentage to total teachers in the system this was 7 and 19percent in 2005 and 2012 respectively. This issue was highlighted in several group discussions as well[9].

[9] These numbers are counted from the responses to Question 15 in Principal and Teacher information schedule for 2005 (Code 15) and Question 17 of the same schedule for year 2012 (Code 19). These numbers seem inconsistent with the responses to Questions 16 in 2005 schedule and Question 18 in 2012 schedule. Numbers given in Table 12 include principals and fulltime released teachers as well. Some teachers classified as trained in Question16 (2005) and Question 16 (2012) were also classified as "without

School census has also collected limited information on various sources of funds available for schools. Formats of data collection for the two years are different. Therefore, comparison between the two years is possible only for some variables. In 2005, data on only Quality Improvement Grants (QIG) was collected. The amount received under QIG, expenditure from QIG receipts and the number of installments of QIG grants is the useful information from 2005.

School census 2012 has collected more information on grants. It collects information on funds received under Quality Improvement Grant (QIG), Higher Order Processes (HOP), School Development Society (SDS), School Facility Fee (SFF), Alumni Associations (AA) and School Development Projects (SDP) is collected. Accumulation at the end of previous year, receipts up to mid-year, expenses up to mid-year and balance up to mid-year are also collected.

Those data will be elaborated in Section 10 of this paper where efficiency of education financing is presented.

3.3 Equitability of Financing

This section of the paper explores the issues pertaining to equitability of education financing. Following the analysis in section 8, equitability is explored in terms of financial allocation, physical resources and also in terms of output based measures. Equitability of education financing is examined under several dimensions. Geographical (districts) dimension, school type (national vs. provincial) dimension, gender dimension, medium of instruction dimension and whether the school is a plantation school or not is explored.

Under each dimension we are interested in examining the degree of disparity and also comparison of disparity between and within categories are also examined.

In addition to the availability of financial, physical and output based measures, this study will also explore the capacity of schools to generate and manage school level finances.

Comparison of data over time will also be performed to understand the progress of the system over time. Main sources of data for the analysis in this section are schools census and statistics handbooks of exams department.

Table 13 summarizes some basic information about district wise distribution of public education in Sri Lanka.

Total number of students has remained around 3.9 million throughout the period. This is consistent with the projections of school going age population in Sri Lanka. Indralal (2012) has estimated that the number of children in school going age (5 to 19) in 2006 is 4.8 million and in 2012 it is 4.7 million; a slight

professional qualifications" in Question 15 (2005) and in Question 17 (2012). Those teachers were excluded from the numbers reported in Table 12.

decline over time]. Indralal (2012) has further projected that the total schooling age population in year 2021 will be 4.2 million. This is important for education policy maker because this indicates that the demand for general education will remain constant in near future. There will not be a decline or increase of the social demand for general education in years to come, especially during the next 10 years period for which the next education sector development plan is prepared. The same source further suggests that the number of children (5 to 19) will drop further over long run.

Table 12: Nature of Disparity in pupils between Public Schools (Districts)

	2005		2012		Growth	
Districts	Schools	Pupil	Schools	Pupil	Schools	Pupil
Colombo	410	353,736	402	368,123	-0.28	0.58
Gampaha	536	326,906	531	351,169	-0.13	1.06
Kaluthara	410	195,962	404	218,158	-0.21	1.62
Kandy	645	271,066	643	268,435	-0.04	-0.14
Matale	304	92,865	316	97,320	0.56	0.69
Nuwara Eliya	517	152,955	538	159,279	0.58	0.59
Galle	422	218,315	428	218,633	0.20	0.02
Matara	365	163,633	359	162,670	-0.23	-0.08
Hambantota	310	127,845	316	129,511	0.28	0.19
Jaffna	410	136,292	434	128,430	0.84	-0.82
Manar	95	31,551	96	29,299	0.15	-1.02
Vavuniya	94	25,909	124	28,286	4.56	1.31
Mulathive	186	42,316	188	39,286	0.15	-1.02
Kilinochchi	103	27,879	102	23,248	-0.14	-2.37
Batticalo	322	121,154	345	125,473	1.02	0.51
Ampara	389	154,641	422	141,683	1.21	-1.20
Trinco	261	97,441	296	84,270	1.92	-1.93
Kurunegala	882	308,501	865	319,042	-0.28	0.49
Puttlam	342	158,183	348	159,847	0.25	0.15
Anuradhapura	550	174,860	540	192,848	-0.26	1.47
Polonnaruwa	231	80,022	236	81,713	0.31	0.30
Badulla	568	185,025	584	183,265	0.40	-0.14
Monaragala	262	100,768	274	95,056	0.65	-0.81
Ratnapura	580	215,158	583	209,119	0.07	-0.40
Kegalle	529	158,027	531	161,823	0.05	0.34
Total	9,723	3,921,010	9,905	3,975,986	0.27	0.20

Source: School Census 2005 and 2012

Table 12 further shows that the time trend of the number of pupils follows the same pattern for all the districts except for Kaluthara, Vavuniya, Kilinochchi and Anuradhapura. There is also a slight increase in the number of schools. This is mainly due to reconstruction of new schools in war affected areas. The key lesson that policy makers can learn from this finding is that there will not be any

increasing of the social demand for general education in the next ten years for which the next education plan is developed. In the new education sector development plan more emphasis should be given to increase the quality of education in existing schools rather than constructing new schools (other than re-construction of schools destroyed in war affected districts and those due to natural disasters).

Table 13: Nature of Disparity between Public Schools (Other dimensions)

	2005		2012		Growth	
Dimension	Schools	Pupil	Schools	Pupil	Schools	Pupil
National and Provincial						
National Schools	324	713,549	342	786,636	0.79	1.46
Other Schools	9,399	3,207,461	9,563	3,189,350	0.25	-0.08
Gender						
Boys' Schools	124	222,863	128	244,556	0.46	1.39
Girls' Schools	186	311,977	205	354,281	1.46	1.94
Mixed Schools	9,346	3,312,438	9,521	3,323,884	0.27	0.05
Other	67	73,732	51	53,265	-3.41	-3.97
Medium of Instruction						
Sinhala Only	6,494	2,279,314	6,335	2,005,265	-0.35	-1.72
Tamil Only	2,827	843,585	2,895	754,461	0.34	-1.51
Sinhala and Tamil	40	36,347	62	38,526	7.86	0.86
Sinhala, English	250	561,890	419	892,147	9.66	8.40
Tamil, English	85	126,296	161	203,902	12.77	8.78
Three Languages	27	73,578	33	81,685	3.17	1.57
Plantation or Not						
Government Schools	8,896	3,729,852	9,084	3,777,890	0.30	0.18
Plantation Schools	827	191,158	821	198,096	-0.10	0.52

Source: School Census 2005 and 2012

3.3.1 Geographical Equitability

Degree of disparity between districts in education finances is explored in this section. Geographical distribution is examined in terms of administrative districts. Province wise disparity in funds allocation is already presented in Section 8 above.

Tables 14 to 18 below present geographical disparity and its time trends of selected variables representing school facilities.

Non-availability of electricity and telephone facilities in public schools by districts is presented in Table 14. District wise disparity is significantly high and it shows an appreciable progress over time. For example, there were only 8 schools in the Colombo district (2 percent) without electricity in 2005. The highest percentages of non-availability of electricity was reported for Mannar (96

percent) and Kilinochchi (99 percent). However, the progress over time is appreciable. In 2012 the percentages of schools without electricity decreased to 0.50, 80 and 75 percent respectively.

Availability of telephones is less satisfactory as compared to availability of electricity. The Colombo district has the smallest percentage (43 percent) and the highest percentage was reported for Kilinochchi (100 percent) in 2005. In 2012 these percentages dropped to 28 and 71 percents respectively.

Table 14: Schools with no electricity and Telephone by Districts

	2005		2012		2005		2012	
	Not electrified				No telephone			
	Number	%	Number	%	Number	%	Number	%
Colombo	8	1.95	2	0.50	175	42.68	113	28.11
Gampaha	11	2.05	2	0.38	309	57.65	177	33.40
Kaluthara	62	15.12	15	3.71	317	77.32	243	60.15
Kandy	150	23.26	80	12.44	534	82.79	445	69.21
Matale	115	37.83	65	20.57	270	88.82	250	79.11
Nuwara Eliya	281	54.35	124	23.09	484	93.62	466	86.78
Galle	57	13.60	14	3.27	340	81.15	299	69.86
Matara	58	15.89	7	1.95	292	80.00	275	76.60
Hambantota	83	26.86	24	7.59	281	90.94	263	83.23
Jaffna	165	40.24	45	10.39	352	85.85	212	48.96
Mannar	91	95.79	77	80.21	94	98.95	43	44.79
Vavuniya	62	65.96	49	39.52	84	89.36	80	64.52
Mulathive	135	72.58	98	52.13	179	96.24	152	80.85
Kilinochchi	102	99.03	76	74.51	103	100.00	72	70.59
Batticalo	176	54.66	82	23.77	286	88.82	218	63.19
Ampara	180	46.27	70	16.71	334	85.86	358	85.44
Trinco	171	65.52	53	17.97	227	86.97	228	77.29
Kurunegala	285	32.31	75	8.67	779	88.32	613	70.87
Puttlam	86	25.15	22	6.32	285	83.33	195	56.03
Anuradhapura	225	40.91	109	20.19	503	91.45	433	80.19
Polonnaruwa	89	38.53	50	21.19	209	90.48	161	68.22
Badulla	211	37.15	101	17.29	503	88.56	466	79.79
Monaragala	146	55.73	72	26.37	244	93.13	193	70.70
Ratnapura	245	42.24	96	16.47	512	88.28	471	80.79
Kegalle	226	42.72	82	15.44	476	89.98	401	75.52
Total	3,420	35.19	1,490	15.06	8,172	84.08	6,827	68.98

Source: School Census 2005 and 2012

Table 15 shows district wise disparity of water and sanitary facilities in public schools in Sri Lanka. According to Table 15 there were 27 percent schools in the

country with no proper drinking water supply facilities. In 2012 this percentage dropped to 16 percent.

Table 15: Water and Sanitary Facilities by Districts

	2005		2012		2005		2012	
	No Water Provision				Unacceptable Sanitary Facilities			
	Number	%	Number	%	Number	%	Number	%
Colombo	6	1.46	3	0.75	2	0.49	0	0.00
Gampaha	24	4.48	12	2.26	2	0.37	2	0.38
Kaluthara	62	15.12	21	5.20	6	1.46	5	1.24
Kandy	274	42.48	115	17.88	26	4.03	4	0.62
Matale	105	34.54	60	18.99	16	5.26	3	0.95
Nuwara Eliya	249	48.16	123	22.91	44	8.51	8	1.49
Galle	70	16.71	28	6.54	15	3.55	3	0.70
Matara	81	22.19	42	11.70	4	1.10	2	0.56
Hambantota	95	30.74	17	5.38	18	5.81	4	1.27
Jaffna	43	10.49	22	5.08	37	9.02	13	3.00
Mannar	19	20.00	8	8.33	18	18.95	6	6.25
Vavuniya	27	28.72	16	12.90	11	11.70	11	8.87
Mulathivu	66	35.48	38	20.21	69	37.10	22	11.70
Kilinochchi	27	26.21	12	11.76	20	19.42	6	5.88
Batticalo	74	22.98	70	20.29	45	13.98	8	2.32
Ampara	167	42.93	111	26.49	46	11.83	10	2.39
Trinco	41	15.71	56	18.98	35	13.41	13	4.41
Kurunegala	264	29.93	150	17.34	56	6.35	7	0.81
Puttlam	122	35.67	67	19.25	8	2.34	2	0.57
Anuradhapura	160	29.09	146	27.04	23	4.18	2	0.37
Polonnaruwa	78	33.77	64	27.12	9	3.90	0	0.00
Badulla	182	32.04	159	27.23	21	3.70	7	1.20
Monaragala	76	29.01	58	21.25	6	2.29	6	2.20
Ratnapura	161	27.76	84	14.41	23	3.97	5	0.86
Kegalle	195	36.86	93	17.51	20	3.78	6	1.13
Total	2,668	27.45	1,575	15.91	580	5.97	155	1.57

Source: School Census 2005 and 2012

The next section of Table 15 summarizes the availability of sanitary facilities by district. In the school census information on sanitary facilities is gathered using several questions. It covers toilets and urinals for teachers, boys, girls and common facilities as well. Available facilities are again classified into three as good, reparable and bad. In Table 15 "unacceptable sanitary conditions" means unavailability of good or reparable facilities under any of the classifications given above. Percentage of schools without such facilities varies from 0.50 percent in

the Colombo to 37 percent in Mulathivu in 2005. Progress of the facility over time is reported in next two columns.

Table 16: Academic Infrastructure by Districts

	2005		2012		2005		2012		2005		2012	
	PC Labs				OL Labs				Libraries			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Colombo	122	29.76	193	48.01	142	40.34	169	52.81	317	77.32	346	86.07
Gampaha	76	14.18	174	32.89	137	34.25	148	38.34	344	64.18	396	74.72
Kaluthara	58	14.15	139	34.58	105	34.43	123	41.84	192	46.83	254	62.87
Kandy	90	13.95	234	36.45	141	30.32	161	34.77	297	46.05	377	58.63
Matale	38	12.50	98	31.11	48	25.53	62	31.79	118	38.82	172	54.43
Nuwara Eliya	34	6.58	155	28.86	67	25.97	85	29.72	133	25.73	206	38.36
Galle	65	15.40	183	42.76	128	38.44	157	50.97	223	52.84	308	71.96
Matara	43	11.78	128	35.65	73	24.91	112	42.91	184	50.41	269	74.93
Hambantota	37	11.94	133	42.09	73	29.67	102	41.63	164	52.90	220	69.62
Jaffna	43	10.49	140	32.33	60	25.00	105	42.68	125	30.49	187	43.19
Mannar	0	0.00	8	8.33	9	15.79	14	22.58	19	20.00	27	28.13
Vavuniya	5	5.32	25	20.16	15	25.42	26	35.62	25	26.60	31	25.00
Mulathive	12	6.45	37	19.68	22	31.88	38	48.72	32	17.20	46	24.47
Kilinochchi	5	4.85	11	10.78	2	3.57	6	11.11	23	22.33	28	27.45
Batticalo	31	9.63	92	26.82	34	21.94	77	40.53	88	27.33	157	45.51
Ampara	36	9.25	109	26.08	71	29.22	92	35.94	134	34.45	208	49.64
Trinco	30	11.49	64	21.84	40	23.39	66	36.26	82	31.42	133	45.08
Kurunegala	104	11.79	271	31.44	216	31.81	310	47.77	391	44.33	512	59.19
Puttlam	36	10.53	134	38.51	89	30.27	134	44.97	152	44.44	217	62.36
Anuradhapura	62	11.27	243	45.08	111	29.84	163	44.05	222	40.36	295	54.63
Polonnaruwa	25	10.82	58	24.68	63	44.06	83	60.58	112	48.48	145	61.44
Badulla	56	9.86	183	31.44	160	41.78	201	51.28	229	40.32	292	50.00
Monaragala	26	9.92	101	37.27	90	45.69	89	44.72	111	42.37	170	62.27
Ratnapura	63	10.86	181	31.26	130	32.10	136	33.17	234	40.34	291	49.91
Kegalle	52	9.83	158	29.76	90	27.03	108	32.24	205	38.75	272	51.22
Total	1,149	11.82	3,252	32.93	2,116	31.60	2,767	41.37	4,156	42.74	5,559	56.17

Source: School Census 2005 and 2012

Information on selected academic infrastructure facilities by districts is given in Table 16. It reports numbers and percentages of schools in each district with PC labs, OL labs and libraries (Formal or Temporary). The overall picture of such facilities are reported in Table 8 and the same are reproduced in the last row of Table 16. According to the information summarized in Table 16, in 2005, twelve percent of schools in the country had computer labs. In 2012 this increased to 33 percent. There were 32 percent schools with OL labs in 2005 and it increased to 42 percent in 2012. Those percentages (OL labs) were calculated selecting schools with OL or above classes only. Information about library facilities was collected in two categories (Formal libraries and Temporary libraries). Numbers reported

under libraries count both. According to the statistics given there were 43 percent schools with formal or temporary libraries and this increased in 2012 to 56 percent.

District wise disparity of the three variables is given in the body of the table. It is noticeable that in 2005 there were no computer labs in schools located in Mannar. In 2012 after seven years it is noted that 8 schools in the Mannar district (out of 95 schools) have computer labs.

Table 17: Conduct Computer Teaching (District wise)

	Number	%
Colombo	119	29.60
Gampaha	116	21.93
Kaluthara	72	17.91
Kandy	164	25.55
Matale	80	25.40
Nuwara Eliya	127	23.65
Galle	66	15.42
Matara	70	19.50
Hambantota	83	26.27
Jaffna	173	39.95
Mannar	22	22.92
Vavuniya	39	31.45
Mulathive	41	21.81
Kilinochchi	23	22.55
Batticalo	95	27.70
Ampara	100	23.92
Trinco	61	20.82
Kurunegala	201	23.32
Puttlam	82	23.56
Anuradhapura	139	25.79
Polonnaruwa	43	18.30
Badulla	155	26.63
Monaragala	47	17.34
Ratnapura	109	18.83
Kegalle	99	18.64
Total	2326	23.56

Source: School Census 2012

Table 17 summarizes further information regarding the computer facilities available in public schools. In 2012 information was collected on the availability

of computer teaching in schools. The last row of Table 17 shows that 24 percent of schools in the country had computer teaching. The smallest percentage was reported from the Galle district. In Galle 15 percent of schools have computer teaching. In Jaffna where the largest percentage is reported there are 40 percent of schools with computer teaching.

District wise distribution of human resources in public schools is summarized in Table 18.

Table 18: Issues related to Teachers in Public Schools

	Excess Teachers		Not Professionally Trained	
	2005	2012	2005	2012
Colombo	0.41	0.38	6.17	19.60
Gampaha	0.31	0.52	5.69	20.87
Kaluthara	0.24	0.32	5.78	20.71
Kandy	2.02	0.34	4.21	14.04
Matale	0.50	0.31	5.69	20.60
Nuwara Eliya	0.10	0.36	14.56	26.25
Galle	0.90	0.66	4.48	15.35
Matara	2.40	0.28	3.72	15.05
Hambantota	0.43	0.55	4.86	18.19
Jaffna	0.77	1.34	11.66	15.18
Mannar	0.08	0.80	24.69	15.38
Vavuniya	0.00	0.41	22.23	13.70
Mulathive	0.05	1.87	14.19	22.07
Kilinochchi	0.45	0.81	29.77	12.63
Batticalo	0.15	0.21	13.74	16.99
Ampara	0.21	0.60	12.05	15.52
Trinco	0.19	0.50	12.09	14.54
Kurunegala	0.71	0.45	4.57	15.62
Puttlam	0.11	0.15	5.53	24.39
Anuradhapura	0.38	0.57	7.11	23.14
Polonnaruwa	0.13	0.33	8.40	26.71
Badulla	0.89	0.47	6.39	24.02
Monaragala	0.37	0.37	9.12	34.93
Ratnapura	0.47	0.28	6.00	19.91
Kegalle	0.49	0.47	3.47	17.73
Total	0.67	0.46	7.01	19.24

Source: School Census 2005 and 2012

According to the aggregate information reported in Section 8 we found that there is no problem with the teachers in Sri Lanka in general. Overall Pupils to Teacher ratio was 21 in 2005 and that was 19 in 2012. However, there are structural

problems in it. For example, a significant number of teachers do not have professional qualifications to be a teacher, there is a dearth of subject specific teachers (English, IT, AL science etc.).

Table 18 reports excess teachers and teachers without any professional qualifications as a percentage of total teachers by districts. For most of the districts having excess teachers is not a significant problem. However, in 2005 the excess teacher problem was quite notable in Kandy and Matara. Out of a total number of teachers in the two districts in 2005 nearly 2 percent of teachers where the excess teacher ratio was above one percent was noted in this regard.

Teachers with no proper professional qualifications as a percentage to total teachers in each district shows that there were seven percent of teachers in 2005 without any professional qualifications. This further increased to 19 percent in 2012. Districtwise disparity shows that the distribution of percentage of teachers without professional qualifications ranges between 3.47 for Kegalle to 29.77 for Kilinochchi in 2005. This disparity increased in 2012. In 2012 it ranges from 12.67 for Kilinochchi to 34.93 for Monaragala.

Availability of English, IT and Advanced Level teachers is summarized in Table 19.

As for many other resources too are found to be grossly inadequate as compared to the student population. For example, in 2012 there were nearly 200 pupils per English teacher and nearly 4,000 pupil per IT teacher in the entire country.

Similar to most of the other resourc increment over time is appreciable. However, more resources allocation for these facilities is needed in order to make the resources adequate to provide a good service.

As far as the distribution between districts are concerned it is observed that in absolute terms a significant disparity is observed for example, in 2012, out of a total English teachers 22 percent was in the Western province. However, when the distribution of teachers with students-distribution is compared it is observed that the both are consistent. Figure 6 plots relative distribution of teachers and that of students by districts.

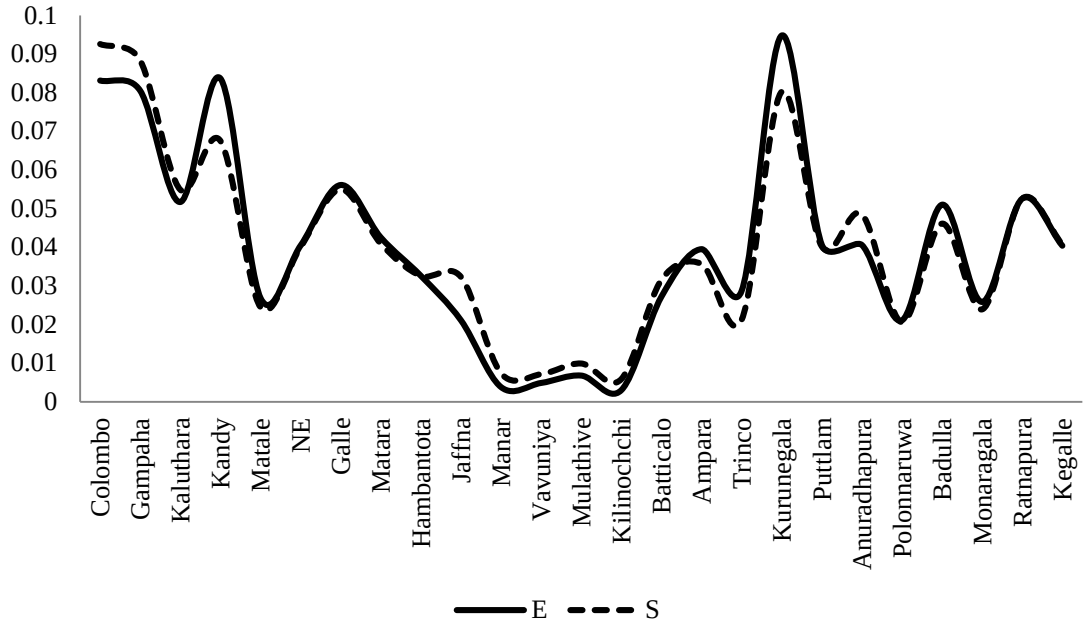

Figure 6: English Teachers and Students Distribution by Districts, 2012

In Figure 6, E stands for percentage of English teachers in a particular district and S stands for percentage of students in a given district. Both lines coincide indicating that there is no disparity of English teacher distribution between districts.

Table 19: Availability of English, IT and AL Teachers

	English		IT		AL Science		AL Teachers	
	2005	2012	2005	2012	2005	2012	2005	2012
Colombo	1,927	1,698	71	79	514	626	1,625	2,100
Gampaha	1,712	1,644	39	60	316	319	1,363	1,587
Kaluthara	1,112	1,056	25	51	209	291	944	1,227
Kandy	1,726	1,709	46	85	337	385	1,802	2,058
Matale	539	549	20	28	70	66	539	558
Nuwara Eliya	580	826	15	37	80	202	492	919
Galle	1,340	1,146	22	50	240	298	994	1,232
Matara	1,115	869	19	53	176	146	852	908
Hambantota	646	666	13	53	95	175	529	831
Jaffna	474	431	11	37	192	202	691	925
Mannar	54	78	1	13	31	24	118	176
Vavuniya	64	100	3	10	23	15	114	107
Mulathive	164	139	1	17	29	36	147	244
Kilinochchi	66	62	1	11	16	10	109	95
Batticalo	446	556	3	28	79	127	408	716
Ampara	771	807	11	57	121	158	516	812
Trinco	414	586	10	29	64	157	302	628
Kurunegala	2,234	1,936	59	61	265	297	1,875	2,064

Puttlam	725	830	13	36	90	169	432	855
Anuradhapura	870	829	35	53	93	60	608	822
Polonnaruwa	327	431	9	12	46	85	267	559
Badulla	1,047	1,042	27	42	121	153	810	1,152
Monaragala	432	528	2	29	53	153	313	769
Ratnapura	989	1,074	18	48	139	191	754	1,083
Kegalle	988	825	21	44	162	111	957	846
Total	20,762	20,417	495	1,023	3,561	4,456	17,561	23,273

Source: School Census 2005 and 2012

Figures 7, 8, 9 and 10 present the IT teachers, AL science teachers and AL teachers in all streams compared to student distribution by districts.

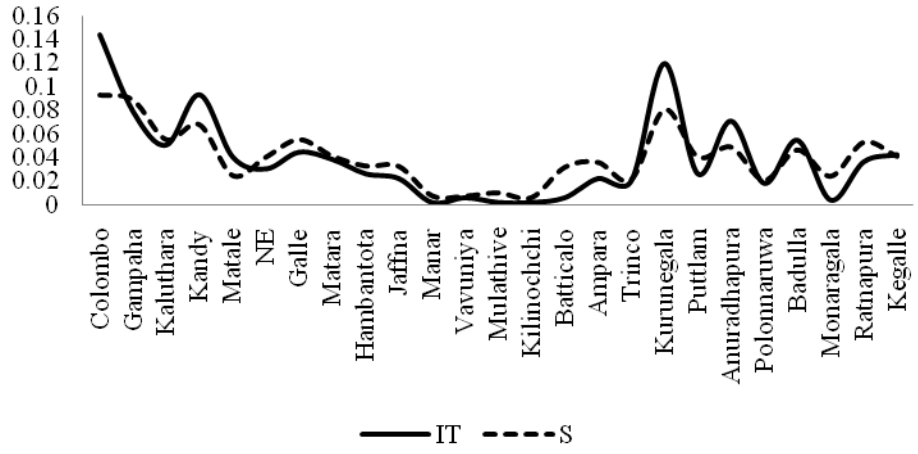

Figure 7: IT Teachers and Students Distribution by Districts, 2012

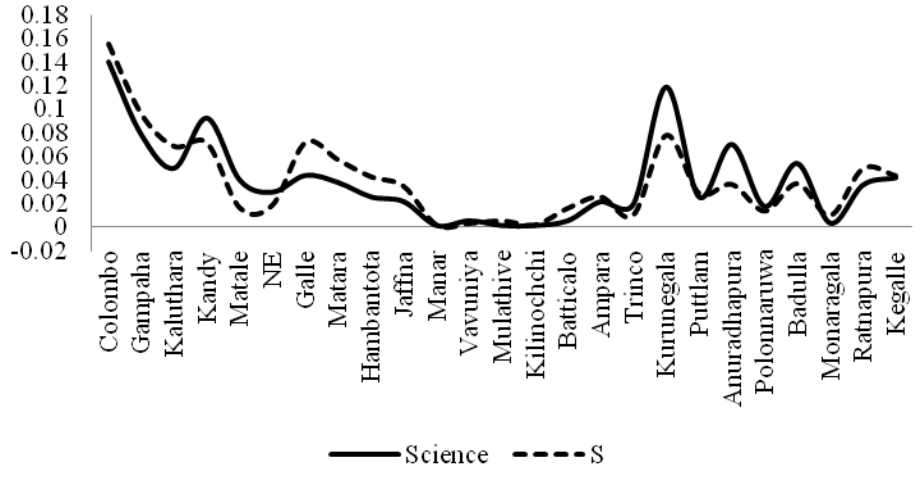

Figure 8: AL Science Teachers and Students Distribution by Districts, 2012

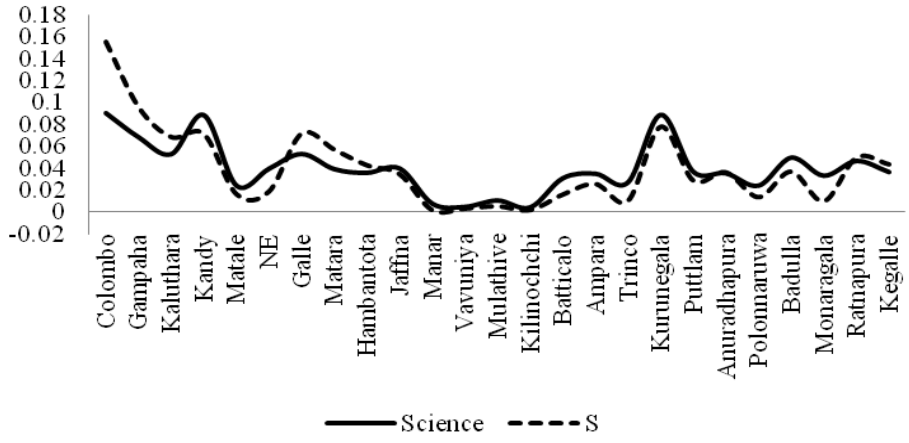

Figure 9: AL Teachers and Students Distribution by Districts, 2012

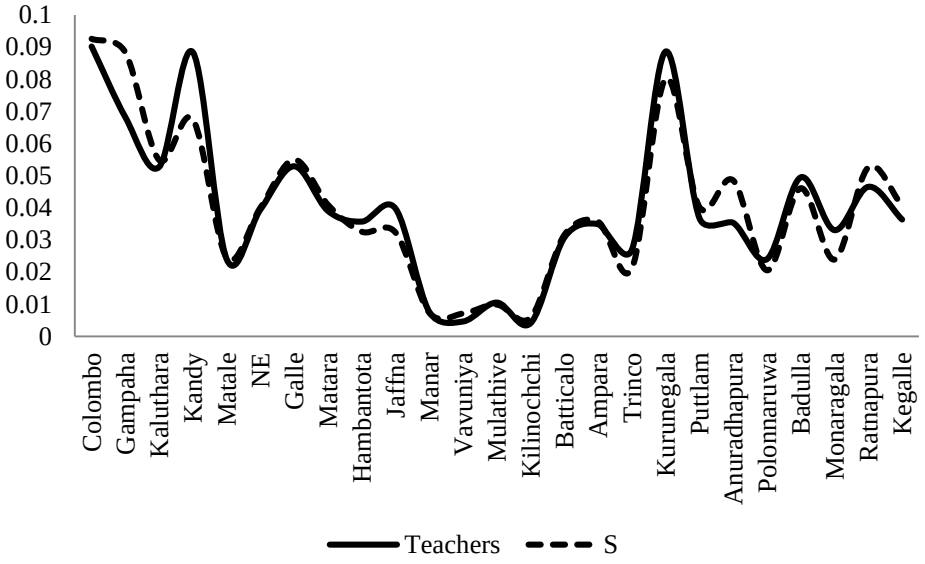

Figure 10: AL Teachers (all streams) and Students Distribution by Districts, 2012

All figures clearly show that teacher distributions are very much consistent with student distribution. Relatively more teachers are allocated to the districts with more students. However, in all cases inadequacy of resources is observed in all districts. For example, in 2012 there were 195 pupils per English teacher. In Colombo this was 217 and in Mannar and Kilinochchi where the number is highest it was reported that there were 375 students per English teacher.

The situation of IT teacher was much worse. Pupils to IT teacher ratio in 2012 was 3,887. In Colombo this was 4.660. Pupils to IT ratio for Polonnaruwa is 6,809. It is the highest among all districts.

District-wise distribution of school output (in terms of various exam results) is presented below.(percentage of pass rates)

Table 20: Distribution of Exam Results

	Scholarship	OL	AL Science	AL Arts	AL Commerce
Colombo	11.44	61.36	50.75	52.46	52.18
Gampaha	11.67	52.51	40.73	55.40	48.35
Kaluthara	11.30	53.00	48.79	65.41	55.87
Kandy	7.49	47.55	50.68	55.60	48.14
Matale	8.15	41.57	39.03	58.76	43.10
Nuwara Eliya	6.41	39.49	32.80	51.80	37.58
Galle	10.25	54.18	48.74	69.02	61.75
Matara	10.27	56.06	46.89	66.52	54.03
Hambantota	13.96	52.56	41.35	69.31	53.15
Jaffna	10.72	44.06	51.44	62.80	52.76
Mannar	5.69	27.71	58.56	66.67	51.78
Vavuniya	6.87	48.51	49.74	67.18	48.56
Mulathive	11.79	47.87	65.94	67.75	50.32
Kilinochchi	4.28	31.64	44.00	72.16	53.27
Batticalo	12.16	45.25	51.90	61.03	54.50
Ampara	11.46	52.47	45.35	59.12	44.59
Trinco	14.49	41.73	44.29	51.90	49.84
Kurunegala	13.65	54.08	41.63	64.18	52.35
Puttlam	9.12	44.19	46.18	61.77	54.45
Anuradhapura	10.53	41.24	51.08	60.12	48.08
Polonnaruwa	12.23	36.65	35.21	56.70	40.91
Badulla	13.72	44.78	44.48	55.58	46.79
Monaragala	12.83	36.33	38.41	64.41	55.17
Ratnapura	12.90	49.36	35.80	64.89	57.88
Kegalle	11.22	52.43	43.87	65.08	54.26
Total	11.08	49.26	45.70	61.04	51.48

Source: School Census 2012

On average, 11 percent of candidates have passed the grade 5 scholarship exam, 49 percent of candidates have passed OL. Pass rates of AL Science, Arts and Commerce streams are 46, 61 and 52 percent respectively. Variation between districts is reported in the body of the table.

3.3.2 Disparities in Other Dimensions

Table 13 has introduced another four dimensions to the analysis. The four other dimensions are a.) National vs. Provincial Schools, b.) Gender breakdown of schools, c.) Medium of instruction and d.) Plantation vs. Government schools.

Breakdown of all the variables presented in Section 9.1 above by the four dimensions are presented in this section. Table 21 presents common infrastructure facilities available in public schools in Sri Lanka. The last row of the table presents the overall situation and its time trend. Numbers reported in the table are percentages to total schools in the sub-group. For example, 0.62 in the very first cell indicates that out of the total national schools in 2005 there were 0.62 percent schools without electricity. Other numbers must be interpreted accordingly.

Comparison of overall averages with sub-sector averages indicates the level of disparity. For example, out of all public schools nearly 35 schools did not have electricity in 2005. The same figure for 2012 was 16 percent. In 2005, percentage of national schools without electricity was 0.62 percent and that for plantation schools was 62 percent.

Comparison of the numbers within sub-groups shows that in terms of all common infrastructure facilities national, uni-sex schools, schools with English medium teaching and government schools are much better than their counterparts in sub groups.

For all the variables a satisfactory progress is observed in overall performance as well as within most of the sub groups. For example, percentage of schools without electricity has dropped from 35 percent in 2005 to 16 percent in 2012.

Table 21: Common Infrastructure Facilities in Public Schools: Other Dimensions

	Not Electrified		No Telephone		No Water		Unacceptable Sanitary	
National and Provincial	2005	2012	2005	2012	2005	2012	2005	2012
National Schools	0.62	1.17	3.40	4.69	3.09	2.64	0.00	0.00
Other Schools	36.38	15.55	86.87	71.27	28.29	16.39	6.17	1.62
Gender								
Boys' Schools	4.84	0.79	18.55	12.60	4.03	1.57	0.81	0.00
Girls' Schools	4.30	1.46	14.52	9.76	2.69	1.46	2.15	0.49
Mixed Schools	36.38	15.61	86.66	71.25	28.42	16.49	6.15	1.61
Other	10.45	1.96	38.81	23.53	4.48	1.96	0.00	1.96
Medium of Instruction								
Sinhala Only	28.81	11.35	86.04	72.51	28.75	17.46	3.59	0.85
Tamil Only	54.55	26.24	90.10	74.28	27.84	15.54	12.20	3.50
Sinhala and Tamil	17.50	6.45	42.50	43.55	17.50	8.06	0.00	0.00
Sinhala, English	0.00	1.19	5.20	9.31	2.40	2.63	0.00	0.00
Tamil, English	1.18	2.50	11.76	11.25	0.00	1.88	2.35	0.00
Three Languages	0.00	0.00	3.70	12.12	7.41	3.03	0.00	0.00
Plantation or Not								
Government Schools	32.70	13.96	83.13	67.14	25.98	15.48	5.77	1.56
Plantation Schools	61.91	27.16	94.32	89.28	43.29	20.71	8.10	1.58
Overall	35.19	15.91	84.08	68.98	27.45	15.91	5.97	1.57

Source: School Census 2005 and 2012

Table 22: Disparities in Education Related Facilities by Other Dimensions

	IT Labs		OL Labs		Libraries		With Counselor	
	2005	2012	2005	2012	2005	2012	2005	2012
National and Provincial								
National Schools	81.48	78.30	78.40	81.76	93.52	97.95	45.68	60.70
Other Schools	9.42	31.31	56.22	64.34	40.99	54.68	5.05	15.57
Gender								
Boys' Schools	56.45	74.80	64.37	72.63	79.84	89.76	30.65	44.09
Girls' Schools	53.76	66.18	64.63	63.47	81.72	89.76	25.81	40.00
Mixed Schools	10.21	31.46	58.99	66.63	41.24	54.82	5.45	83.81
Other	37.31	70.59	41.07	53.66	76.12	88.24	13.43	41.18
Medium of Instruction								
Sinhala Only	10.69	33.07	63.65	68.66	48.03	62.24	6.24	15.85
Tamil Only	5.98	23.33	40.15	51.63	24.12	34.96	1.56	12.11
Sinhala and Tamil	25.00	40.32	29.41	64.29	60.00	67.74	17.50	20.97
Sinhala, English	76.80	77.57	79.91	82.62	91.20	94.27	46.00	54.89
Tamil, English	74.12	72.33	57.14	59.87	91.76	88.13	28.24	48.75
Three Languages	77.78	75.76	76.92	73.33	92.59	87.88	33.33	60.61
Plantation or Not								
Government Schools	12.51	34.07	60.04	67.53	45.28	58.79	6.69	18.05
Plantation Schools	4.35	20.37	25.77	44.19	15.72	27.16	1.09	6.94
Overall Average	11.82	32.93	21.95	41.37	42.74	56.17	6.21	17.13

Source: School Census 2005 and 2012

Table 22 reports selected education related infrastructure facilities in public schools in Sri Lanka. The format of the table is similar to the format of Table 21 above. Table 22 reports percentages of schools with IT labs, OL labs, Libraries and schools with counselor service. On average 12 percent of public schools in Sri Lanka have IT labs. Breakdown of it in different sub-samples shows the disparity. Out of all, 82 percent of national schools have IT labs whereas only 9 percent of provincial schools have IT labs. Mixed schools, Tamil only schools and plantation schools also show low a performance in IT facilities.

Table 23 shows distribution of schools with computer teaching. On average 24 percent of schools in Sri Lanka have computer teaching. This number varies significantly between various subgroups. According to Table 23, there are 63 percent of national schools with computer teaching facilities. The lowest figure is presented for Sinhala only schools.

Table 23: Computer Teaching, 2012

National and Provincial	%
National Schools	63.34
Other Schools	22.13
Gender	
Boys' Schools	51.97
Girls' Schools	56.86
Mixed Schools	22.24
Other	64.71
Medium of Instruction	
Sinhala Only	18.09
Tamil Only	27.04
Sinhala and Tamil	22.58
Sinhala, English	59.90
Tamil, English	76.10
Three Languages	54.55
Plantation or Not	
Government Schools	23.67
Plantation Schools	22.32
Overall Average	23.56

Source: School Census 2012

Availability and disparity of selected types of teachers is presented in Table 24. It summarizes the availability of English teachers, IT teachers, AL science teachers and AL teachers in all streams.

Table 24: Disparity in Teacher Resources (Selected type of teachers)

	English Teachers		IT Teachers		AL Science Teachers		AL All Streams Teachers	
	2005	2012	2005	2012	2005	2012	2005	2012
National and Provincial								
National Schools	3,287	3,185	173	153	2,050	2,519	5,324	7,105
Other Schools	17,475	17,229	322	869	1,511	1,937	11,295	16,168
Gender								
Boys' Schools	1,163	1,003	42	57	604	813	1,293	1,841
Girls' Schools	1,415	1,400	52	56	740	889	2,172	2,944
Mixed Schools	17,883	17,795	390	891	2,064	2,623	12,630	18,016
Other	300	216	11	18	153	131	524	472
Medium of Instruction								
Sinhala Only	13,554	11,791	282	561	1,079	812	8,579	9,560
Tamil Only	3,318	3,664	39	227	289	197	2,131	2,877
Sinhala and Tamil	231	204	4	9	21	28	110	211
Sinhala, English	2,709	3,576	136	142	1,579	2,519	4,297	7,849
Tamil, English	549	810	17	64	371	637	968	2,042
Three Languages	401	369	17	19	222	263	534	734
Plantation or Not								
Government Schools	20,049	19,400	488	979	3,524	4,393	16,367	22,782
Plantation Schools	713	1,014	7	43	37	63	252	491
Overall	20,762	20,414	495	1,023	3,561	4,456	17,561	23,273

Source: School Census 2005 and 2012

Table 24 reports absolute numbers. These figures should be interpreted in comparison with the student population. However, a huge disparity is seen in some sub groups even with absolute numbers. For example, the number of IT teachers is inadequate in plantation schools where the number of IT teachers in plantation schools is 7. This is for 827 schools and 191,158 student population in 2005. This shows that each IT teacher in the plantation sector should serve on average 118 schools and each IT teacher is required to serve over 27,000 students in the plantation sector.

Table 25: Disparities in School Output (percentage pass rates)

	Scholarship	OL	AL
National and Provincial			
National Schools	19.42	71.96	57.44
Other Schools	9.93	42.45	51.98
Gender			
Boys' Schools	15.98	70.66	45.36
Girls' Schools	16.03	74.75	64.71
Mixed Schools	10.32	44.44	53.25
Other	18.94	61.22	56.76
Medium of Instruction			
Sinhala Only	10.19	39.61	51.94
Tamil Only	7.68	36.50	54.73
Sinhala and Tamil	6.31	39.91	50.25
Sinhala, English	18.69	70.36	55.82
Tamil, English	14.97	60.08	54.95
Three Languages	12.88	76.98	55.41
Plantation or Not			
Government Schools	11.40	49.98	54.65
Plantation Schools	4.61	31.16	48.68
Overall Average	11.08	49.26	54.53

Source: School Census 2012

Table 25 summarizes pass rates of three national level examinations. Overall AL performance is reported in the last row. Body of the table shows that national schools, uni-sex schools and government schools have performed better than their counterparts in each sub-group in all exams. Medium-wise distribution shows that schools with English medium teaching have performed better than the others. In fact this is what we found in all other tables as well in general.

3.3.3 Within District Disparities

Analysis in sections 9.1 and 9.2 shows that as compared to the degree of disparity in other dimensions, between districts variation is small. This prompted us to

explore the variation within districts too because the disparities we have captured in other dimensions would have affected within district variations.

This section examines within district variation of school outputs. Table 26 presents the results of the analysis.

Table 26: Within District Disparities in Education Output

Scholarship	Within	Between	Overall
Variation	1,406,991	47,837	1,454,829
Degrees of Freedom	8,801	24	8,825
MSS	160	1,993	165
F		12.47	
Ordinary Level			
Variation	2,829,156	93,893	2,923,049
Degrees of Freedom	5,960	24	5,984
MSS	475	3,912	488
F		8.24	
Advanced Level			
Variation	1,811,458	73,201	1,884,659
Degrees of Freedom	2,593	24	2,617
MSS	699	3,050	720
F		4.37	

Source: School Census 2012 (Researchers' own Calculations)

Table 26 summarizes Analysis of Variance (ANOVA) results for the three exams. Three columns in the table reports summary measures for within district, between district and overall. For each exam four summary measures are reported in rows. Variation is the total dispersion of the relevant variable. Degrees of Freedom is the number of independent observations relevant to each column. Note that it is less than the number of public schools in Sri Lanka. MSS stands for Mean Sum of Squares. This is obtained by dividing variation by degrees of freedom. MSS reported in the last column is the variance of the relevant variable. F is the ratio of MSS within district to MSS of between districts.

F stat greater than one means that within district disparity is greater than the disparity between districts. Relevant statistical analysis shows that this is statistically significant too.

Information reported in Table 26 very clearly shows that within district disparity in exam results is significantly greater than the disparity between districts.

3.4 Efficiency of Financing

Efficiency of school financing is explored in this section. As the data required to measure efficiency is not directly available, analysis in this section is based on Key Informant Interviews, Focus group discussions and information available from school censuses. Efficiency is further explored mainly in terms of financial efficiency. Output efficiency (cost-benefit ratio) is also explored wherever data was available.

3.4.1 Assessment of Financial Procedures and Developments

Schools need funds for a variety of reasons. Other than for teacher salaries, all other funding requirements of schools are secured through a centralized school level committee according to the new circular 14/01/2014 (hence referred to as the 2014 circular).

Since the 2014 circular was just launched it is too early to evaluate the effectiveness of this circular. But, field level interviews revealed that both principals and zonal level officials are happy about most of the revisions made in the circular. The circular has consolidated the activities of four previous circulars relating to School Development Societies (1 circular), Education quality Inputs (2 circulars) and Program for School Improvement (1 circular). According to the new circular schools have to maintain one account for all school related expenses (See Box 1) other than payment of teacher salaries. Schools are to prepare a five year plan to develop and maintain the school and one year implementation plans to implement the five year plan. Schools need to get the approval of higher officials before implementing their plans. The approval is given at various levels according to the value of the plan.

Flow of funds and Strengths and weaknesses of resource allocation and distribution

The funds for implementing these plans are to be generated through a variety of ways (see Box 2). With the new 2014 circular, schools are given the authority to raise funds for their plans

Schools receive funds through a variety of ways. These can be mainly divided into:

As specified in Circular 01/01/2014.

a) Government

b) NGO's and well wishers
c) Funds raised by the school

Box 1: School expenditure heads

Recurrent Expenditure
REx1- Consumables for curricular activities
REx2- Workshops, their order process, co-curricular and extra-curricular activities
REx3- School needs for education, administration, and welfare
REx4- School needs for support staff
REx5- Repair and maintenance of equipment
REx6- Regular repair and maintenance of buildings
REx7 – Cleaning
REx8 – other recurrent

Capital Expenditure
CEx1 – Basic services – new
CEx2 – Capital expenses needed for curricular activities
CEx3 – Library books
CEx4 – Construction of buildings (new)
CEx5 – Furniture and equipment (for office use)
CEx6 – Additional projects
CEx7 – other recurrent

Source: Circular 14/01/2014

Box 2: Different ways in which schools receive funds
a) Government
S1) Criteria Based Grant (CBG) and the Province Specific Development Grant (PSDG)
S2) Funds received from donors
S3) Government funds received from other government institutions
S4) Funds for School Improvements, Education Quality Inputs (EQI) and Higher Order Processes
b) Donor funding
S5) Funds received from government approved NGOs
S6) Donations from well wishers, parents and old pupils
c) Other
S7) Funds raised from land and buildings belonging to the school
S8) Membership fees from members of the school development society
S9) Funds raised from curriculum related activities
S10) Funds raised through fund raising projects conducted by the school development society.

Funds from the Government

National schools receive funds directly from the Ministry of Education for all their needs. Provincial schools receive funds through the provincial education offices. The provincial councils receive funds mainly from the national government. Funds thus received are allocated for various activities at the provincial level, including education. At the provincial level the recurrent budget is financed by the consolidated fund, which is given to provinces as a Block Grant. The major portion of these funds are for paying salaries and wages. They are also used for personal emoluments, the payment of overtime and other allowances, maintenance, supplies, and overhead costs. Required funds for this are submitted by the provinces and approved by the finance commission based on actual and approved cadre assessments. In the education sector, funds for the payment of teacher salaries, educational quality inputs, training and other recurrent activities are allocated from this grant.

Provinces also provide funds for capital expenses to schools through the Province Specific Development Grant (PSDG) and Criteria Based Grant (CBG) for capital expenses in the education sector. Under CBG, the provinces receive a bulk amount for improving the socio-economic status of the province. Once the grant is received the province can decide how to allocate these funds for various development activities according to guidelines set out by the Finance Commission in the circular (FC/PSDG & CBG/CIRCULAR/2011/1) dated 26th July 2011. The PSDG is designed to finance development project, especially infrastructure projects, in provinces. The provinces can decide on the development projects and implement them with the concurrence of the Commission to ensure that they meet the provincial development needs and are in line with the National Development Policy Framework of the Government. Once this grant is received by the province, the provincial council decides how to distribute it across various sectors including education. PSDG funds are allocated to provinces for sector/subject specific projects; special projects for balanced regional development; flexible allocations for contingencies; and for projects designed at the national level. Both CBG and PSDG funds are allocated to provinces according to a formula with the objective of reducing socio-economic disparities.

Funds for School Improvements, Education Quality Inputs (EQI) and Higher Order Process

Part of the recurrent budget and the capital budget are given to schools directly under different programmes. One main avenue in which schools receive funds is through the Education Quality Inputs (EQI) programme. These are provided to schools according to a formula based on the student population and the grade coverage, with some adjustments for economies of scale. The zones calculate per student amounts of funds for each child in each type and size of school in the zone and based on these schools receive funds according to the student numbers. The size of the fund for each school is completely determined by the formula.

How funds are allocated for higher order process and school improvements given below.

Manthri Prathipadana

In addition to the above mentioned funds schools get government funding from the block grants given to parliamentarians through the decentralized fund (e.g., Manthri Prathipadana). These are allocated at the discretion of the parliamentarians according to school needs.

Non-government sources of funds

Other than for government funds schools receive funds for capital and recurrent expenditure through well wishers and through funds raised by the school and the main facility fees (FF), school development society (SDS) and Old Pupil's Associations (OPAs) school Canteens and other fund raising activities.

Funds from NGOs and CBOs

Other than for the above mentioned government sources, schools receive funds from local and foreign NGOs and other community based organizations. The assistance from NGOs varies according to the location of the schools. These funds were also usually given to projects identified in the school development plans by the schools, with the approval of zonal level officials. Due to a recent circular (New School Circular, 2014), NGOs can give only small amounts of funds directly to schools; large donations need to be given through the central Treasury.

Funds raised by OPAs

Some schools also receive funds from Old Pupils Associations (OPAs). But not all schools have active OPAs. Especially schools that do not have A-Level and O-Level grades find it hard to establish OPAs, as past pupils are more connected to schools where they end their education rather than schools where they start their education. Some National schools have collected enough funds to even build swimming pools through funds raised by OPAs.

Funds generated by schools

In addition to the above mentioned sources of funds schools also generate their own funds. The main means of fund generation are through the collection of facility fees and the School Development Society (SDS) membership fees. However, some schools in economically poor areas are unable to collect even these funds as the children come from poor home backgrounds. Other than these, schools also generate funds through special fund raising activities, such as fairs and concerts. In some schools parents are only able to contribute their labour.

Conclusions and discussions

Schools receive funds from a variety of sources. Different types of funds received by schools and their amounts vary across provinces, school types and their locations. Not all schools are able to generate their own funds. Such schools are totally dependent on public funds from government at various levels.

The only source of funds from which almost all schools have received funds is the EQI programme. The receipt of other types of funds varies widely across schools. The receipt of funds from NGOs and CBOs varies widely across locations. In places where CBOs and NGOs are active schools have received more funding from these sources.

The funds generated through SDS, OPAs and other fund raising activities of the schools are also affected by the type of school, location of school and the popularity of the school. 1 AB and 1C schools have more active OPAs and are able to generate more funds through this source. While type2 and type 3 schools located in remote rural areas are less able to generate funds through SDS and OPAs. Some small remote schools serving impoverished communities are unable to even collect facility fees.

3.4.2 Issues with regard to Funds Received from Different Sources

Issues with funds received through government

Of the other sources of government funding on Funds for School Improvements, Education Quality Inputs (EQI) and Higher Order Process is the only funding that schools can expect to get every year. Schools may or may not receive funding from other sources regularly. However, field interviews reveal that there are several issues with schools receiving these funds from government (the following issues were specifically on the EQI funds).

Issues:

i) Funds are not received on time.

According to interviews at different levels of education there are several reasons for this delay. Sometimes there are delays in the zones receiving the funds for distribution among the schools. Also the long process in which schools receive funds -- where first funds are sent to the Finance Commission, then to the provinces and from there to the provincial level education departments, and then to the zones and finally to the schools – also create delays in disbursing the funds. Usually the funds received by provinces are less than what is budgeted. Then the provinces have to adjust the budgets according to availability of funds. This process also could delay disbursements of funds. Some provinces have held back EQI payments in some years, when the budgets were extremely constrained. For example, from 2009 the North Western province has not given

funds for capital inputs to schools under EQI, and in 2012 in the same province no money was given under EQI.

ii) Estimated amounts of funds are not received (especially for EQI).

Some schools feel that they waste their time planning for projects and obtaining approvals as funds are not received according to plans, and on time. This has undermined the planned activities of the schools. Lack of funds has decreased the quality of the teaching and learning process.

iii) Some schools have not received any funds

In some provinces schools have not received any funds for EQI at all. Not receiving stipulated amounts of funds will result in the inequity between provinces.

iv) When provinces do not receive adequate amounts of funds, funds allocated for education are taken for other projects, restricting the availability of funds for schools.

Funds received from other government institutions

According to interviews in the Galle districts these funds are easier to use, as there is less red tape. But, as the funds come with conditions, schools do not receive the full benefit of the funds. (for example, for construction of buildings the schools have to get approval by a technical officer, and pay the officer out of the funds received for the project). Also sometimes schools are unable to carry out the work planned for the year, but are forced to use funds for other unplanned projects.

Funds received from donors

All schools do not regularly receive funds from donors. The main means in which schools receive funds from donors are from parents, old pupils and well wishers. The ability of different schools to raise funds through donors is quite different. Good urban schools sought after by wealthy parents receive a lot of funds from parents and old pupils (e.g., schools like, Royal College, Visaka Vidyalaya, etc.). But, small rural schools do not receive much funding under this revenue head. This is because poor parents are unable to provide assistance to schools.

Although schools are prohibited from demanding funds when children are admitted to schools, many principals make requests and receive funds during admissions. Good schools with grade 1 schools are more able to raise funds this way. Schools starting in grade 6 are less able to request for funds, as many students come after passing the scholarship exam according to some rule. Some schools in the Galle district which newly became secondary schools, mentioned difficulties in obtaining funds for school development as there are no grade one classes. These differences in the ability to raise funds across different schools could cause inequities in the system.

Funds raised by schools

Among the different means in which schools receive funds, the main means through which schools receive funds under the 'other' category are through the membership fees collected from members of the School Development Society (SDS). Again the amounts of funds that can be raised through membership fees vary widely across schools. According to the circular schools are able to charge membership fees ranging from RS.50 to Rs.600. Many bigger schools charge the maximum fee (i.e., Rs. 600), while smaller schools charge smaller amounts. Also, schools are unable to force parents to pay this amount. Parents pay the membership fees voluntarily. Again parents of richer schools are more likely to pay this fee, while poorer schools struggle to collect money from parents.

As seen in Figure 1, the main means in which schools received funds in 2011 was the education quality inputs funds given by the government and the School Development Society Funds collected by the schools. But across school size the ability of schools to collect funds through SDS varies substantially. As seen, smaller schools rely more on government funds. For example, more than half the expenditure by very small schools (schools with 100 or less students) was financed through funds given to them by the government (EQI funds). While the largest schools (schools with more than 2000 students) relied much less on government funds. For example, on average the expenditure by the largest schools only about 9 per cent was financed by funds received from the government. Unlike the smaller schools, the largest schools relied much more (62 per cent on average) on funds collected by their SDSs to finance school needs. Figure 1 also shows that the smallest schools are less reliant on school fees as well as other sources of funds to finance their requirements, while the larger schools finance a fairly high proportion of their expenditure through school fees and through funds received from other sources. This analysis clearly shows that it is important to continue to provide government funds to smaller schools, which are less able to source their own funds for funding needs.

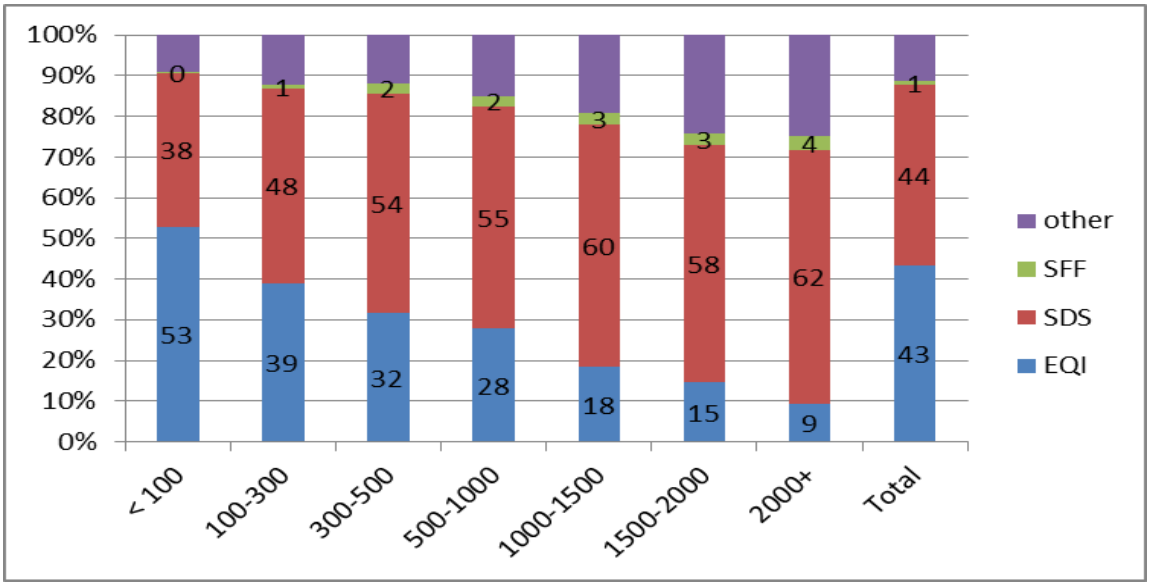

Figure 11: Per-student expenditure by type of funds, by school size

Source: Arunatilake and Jayawardena, 2014 (analysis is done using school census data)

Note: SDS – School Development Society; SFF- School Facility Fees, EQI – Education Quality Inputs.

Averaged over all schools (including those receiving zero funds). Other expenditure includes funds received for the higher order process (HOP), past pupil's associations, and other funds.

4 Recommendations

All the recommendations of this study are mainly for maintaining the system properly and efficiently. Financial requirements for sector development are not discussed in this report in detail. However, implications of the findings of this study on sector development can be drawn. Again the recommendations are classified into three major categories as: recommendations on adequacy of funding, efficiency of funding and equity of distribution. Each sub-section of this section will start with general recommendations and then more specific recommendations are presented.

4.1 Adequacy of Resources

Conventional measures of adequacy of education finance indicate that the sector is heavily under-invested. Therefore, increase of funding is one of the requirements of the sector. As it is highlighted in the body of the report financial allocations per student, physical resource availability per student are not at a satisfactory level. Therefore, more funding and more resources (human and physical) are essential to maintain the system properly and efficiently.

This becomes even more important when the future development of the sector is considered. According to modern thinking on education and considering the recommendations made by other teams in the committee it is noteworthy that in future the schools system and mode of education would be different from its present form. Student centred education, outcome based education require more resources in the classroom.

According to the overall situation of the resources allocation additional resources are required. However, we also found that the disparity in resources allocation is fairly high. Therefore, some measures to re-distribute resources should also be considered. This point will be further elaborated under equity of funding.

It is further recommended that increase of funding should not be a burden to government. The Ministry can explore alternative strategies like Private Public Partnerships (PPP) or Corporate Social Responsibility (CSR) to enhance education facilities. Moreover, a special tax dedicated to improving education can be introduced so that government could raise the required revenue with some public support.

4.1.1 Improving school funding

Teacher Salaries:

At present teacher salaries are paid according to available carder. Given that teacher allocations are not efficient (some schools are over-staffed and others under-staffed), over-staffed schools receive more funding as salaries than under-staffed schools. As rural remote schools tend to be mostly under-staffed, this

could create inequality in the system. Also, schools with teacher vacancies have no means of teaching children and the children suffer. Each school should be given a teaching cardre, based on the size of the school and the subjects offered. Salaries should be distributed by schools according to their cadre. Under-staffed schools should be allowed to recruit teachers to fill vacancies for teachers, until a permanent replacement is found.

Other government funds received by schools

Government funds to schools under the education Quality Inputs (EQI) are given to schools according to a formula, which tries to ensure equity across schools. But as described above due to a variety of reasons schools either do not receive funds under EQI on time, or receive only a fraction of funds allocated for them or receive funds late in the year. These irregularities make these funds inadequate and their use inefficient.

Schools should receive funds under EQI on a stipulated date. The funds for schools can be directly credited to schools, so that there are no delays in schools receiving the funds. Funds for schools should be provided under strict budgetary lines, so that they cannot be used for other projects. Receiving funds allocated for EQI are especially important to small schools and rural schools. As unlike other school, these schools rely mostly on these funds to fulfil their budgetary needs.

Funds from well-wishers (under revenue heads (S6) and (S8))

This is an effective means of getting the school community to contribute to the welfare of the school. But, when the school community is poor the ability of the schools to raise funds under this revenue head is limited. Schools must be encouraged to share best practices in obtaining funds for different types of school needs. However, donors tend to prefer giving funds for capital investments. This is partly because the results of implementing such projects are more visible. But the urgent needs for schools might not match with the interests of projects well wishers. To alleviate such problems, schools can encourage well wishers to fund specific priority projects identified in the school plans. Schools can have annual development reports, where all donors are recognized for their contributions, not just those who provide funds for infrastructure development projects.

To reduce inequities created by this disparity, poorer schools should be provided with a higher proportion of government funds. Also richer schools can be paired up with brother/sister schools such that richer schools can subsidize the activities of some poorer schools and share resources whenever possible. It is a waste that each school builds some physical infrastructure when it is possible to share resources.

4.1.2 Funds for Meeting School Needs

Although schools have spent time preparing detailed five year and one year plans, often they do not have funds to implement those plans. Schools find it

more difficult to raise funds for essential consumables and for repair and maintenance. Donors prefer to donate large amounts of funds for capital expenditure such as buildings, walls and gates.

Benchmarks should be established for ensuring that all schools have identified essential facilities (i.e., toilets, laboratories, libraries, etc.). Schools that lack such facilities should be given funds on a priority basis in the very short run.

4.1.3 Improving Fund Management and Utility at School Level

Improving planning and accounts keeping in schools

The decentralization of school management has increased the administrative workload of a school. But, the support services available to undertake this increased workload have not increased. Often teachers are asked to take over administrative functions.

Divisions and zones should have school development officers (similar to the in-service advisors) to assist schools in their development work. These officers can concentrate on less developed schools to help them develop.

Issues with rules and regulations

The 2014.01.01 circular has not been in use long enough for principals to comment on it. But, generally principals were happy with the increased authority given to them for making decisions. They felt that this will make functioning of the school more efficient as principals have more freedom under these regulations.

4.1.4 Monitoring and Evaluation

Monitoring and evaluation should not only take place at the school level. This should also be done at the zonal and provincial level to ensure that each level is committed to improving education. These evaluations should be done to assess the commitments in different aspects such as, financial, quality improvements and educational outcomes.

4.2 Equity

This study explores the inequality of education financing and resource distribution from six perspectives; geographical (districtwise), plantation vs. other public schools, National vs. Provincial schools, genderwise disparities, medium of instructionwise disparities and it also compares the between schools disparities with between districts variations.

It is observed that clear disparities are observed between National and Provincial schools and Plantation and Other government schools. Resources and output distributions are favourable to national schools when compared with provincial schools and government schools as compared with plantation schools. It is also very clearly observed that between schools variation is higher than the between districts variation.

These findings call for a new policy perspective. In the case of provincial schools and plantation schools, the Ministry of Education should give priority for such schools in funds allocation. In this regard it is observed that public schools located in plantations are relatively better in terms of resource availability and performance than the estate schools.

With decentralized management of schools, schools have been given more authority to identify school development needs and for generating funds for fulfilling these needs. However all schools do not have the same capacity to raise funds. Schools in urban areas catering to families from better socio-economic backgrounds are better able to source funds for school needs than smaller schools from rural areas. Also, whether a school has a primary section or not also mattered in their ability to raise funds. This is because many schools receive money as donations when new students are admitted to schools.

The only way the gap between schools can be lessened, will be if the less advantaged schools have access to resources available to more advantaged schools. There are two ways in which this can be done.

- The government can step into provide more resources to the less advantaged schools. These schools can be positively discriminated, so that they are given better financial support, better principals and better teachers. The formulas for distributing funds to schools should favour the disadvantaged schools more. But, funds alone will not improve schools. The schools also need better principals and teachers to develop themselves. The most talented principals should be given incentives to move to challenging schools to improve their situation and better teachers should also be sent to these schools.
- Schools with different abilities to raise funds and develop their schools in the same geographical area should be grouped together so that they can share resources and learn from each other. Better schools in those clusters should be given resources for supporting the less advantages schools. Monetary rewards should be given to school clusters that manage to improve the learning outcomes of all schools.

Most countries practice a mix of the above two methods for improving equity of schools.

4.2.1 Inadequate and Irregular Receipt of Funds for Essential Recurrent Expenditures

One main issue with the funding for schools, divisions and zones is the lack of adequate funds to carry out basic activities and the irregularities in the receipt of funds. Some interviewed schools indicated the lack of funds to purchase essential consumables such as chemicals and agricultural inputs to carry out essential classroom activities. As funds come at all times of the year, schools are unable to properly plan for their activities, or when the funds come towards the end of the year they have to be spent in a hurry. The divisional and zonal levels also lack funds for effective and comprehensive school inspections. One divisional official indicated that the only way to reach some rural schools is by three-wheelers. But, often funds available for travelling will not cover the hiring cost of a three-wheeler.

4.3 Efficiency

Human resources are the most important element in schools, hence, necessary steps should be taken to improve the quality of human resources not only for the teaching purpose but also for the implementation of development plans. Given the central role played by the school development plan, it is essentials to get the service of qualified teachers in preparing and implementing the plan. Hence, an incentive scheme could be introduced to encourage teachers' involvement.

In order to the improve the efficiency of the system, monitoring and evaluation is essential. Hence, it is important to set-up a centralized monitoring and evaluation unit that functions under the Ministry of Education. Such a unit should be provided with sufficient funds, qualified human resources, and freedom to engage in continuous monitoring and evaluation.

Computer rooms, play grounds, classrooms should be opened to the school community and allow the school to get an income by hiring them. Some schools have already started renting out their premise. These activities should be promoted further so that schools could find resources for maintaining such facilities as well as physical resources are fully utilized for the development of the country.

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