

Private Sector Participation in Sri Lanka's Tertiary Education

A review of information and data

November 2017

Private Sector Participation in Sri Lanka's Tertiary Education

A review of information and data

November 2017

Verité Research aims to be a leader in the provision of information and analysis for negotiations and policy making in Asia, while also promoting dialogue and education for social development in the region. The firm contributes actively to research and dialogue in the areas of economics, sociology, politics, law, and media, and provides services in data collection, information verification, strategy development, and decision analysis.

Email comments to: publications@veriteresearch.org

Table of Contents

1. INTRODUCTION.....	4
1.1. BACKGROUND AND SCOPE	4
1.2. METHODOLOGY	4
1.3. STRUCTURE	5
2. EDUCATIONAL REFORMS IN SRI LANKA	6
2.1. BRIEF BACKGROUND TO REFORMS IN THE EDUCATION SECTOR	6
2.2. PROPOSALS MADE THROUGH KANNANGARA REFORMS.....	6
3. STRUCTURE OF TERTIARY EDUCATION IN SRI LANKA	8
3.1. STRUCTURE OF TERTIARY EDUCATION AND UNDERLYING LEGISLATION	8
3.2. ADMISSION TO TERTIARY EDUCATION INSTITUTES IN SRI LANKA.....	13
3.2.1. Admission Procedures for Tertiary Education Institutions	13
3.2.2. Current Status of Admission to Courses at State Universities	15
3.3. COST OF STATE TERTIARY EDUCATION IN SRI LANKA.....	28
3.3.1. Expenditure on Higher Education in Sri Lanka	28
3.3.2. Expenditure on Higher Education – Sri Lanka vs. Middle Income Countries.....	29
3.3.3. Approximation of Cost of Higher Education per Student in Sri Lanka.....	30
4. STATUS OF PRIVATE AND FOREIGN EDUCATION IN SRI LANKA	34
4.1. COURSE OPTIONS AT PRIVATE TERTIARY EDUCATION INSTITUTES IN SRI LANKA	34
4.2. FOREIGN DEGREE OPTIONS AVAILABLE IN SRI LANKA	35
5. STANDARDS AND QUALITY OF TERTIARY EDUCATION IN SRI LANKA	37
5.1. QUALITY ASSURANCE AND ACCREDITATION IN TERTIARY EDUCATION SECTOR	37
5.2. REFORMS TO THE QUALITY ASSURANCE AND ACCREDITATION STRUCTURE IN SRI LANKA....	41
5.3. QUALITY ASSURANCE AND ACCREDITATION FOR DISCIPLINES WITH PROFESSIONAL BODIES	41
5.4. ACCREDITATION AND QUALITY ASSURANCE IN OTHER JURISDICTIONS	46
6. SRI LANKA'S PERFORMANCE IN INTERNATIONAL INDICATORS	52
6.1. GLOBAL COMPETITIVENESS INDEX	52
6.2. SRI LANKA IN GLOBAL UNIVERSITY RANKINGS.....	56
7. ANNEXES	61
<i>Annex 1 – Summary of Arguments in the Debate on Private Medical Education.....</i>	<i>61</i>
<i>Annex 2 – Key Person Interviews</i>	<i>63</i>
<i>Annex 3 – Recommendations of the Special Committee on Education</i>	<i>64</i>
<i>Annex 4 – Higher Educational Institutes under the Universities Act.....</i>	<i>68</i>
<i>Annex 5 – Degree Awarding Institutes under the Universities Act.....</i>	<i>70</i>
<i>Annex 6 – Student Admissions and Districtwise Breakdown of Students</i>	<i>75</i>
<i>Annex 7 – Districtwise Admissions by Stream for Academic year 2015/16</i>	<i>77</i>
<i>Annex 8 – Government Expenditure on Tertiary Education (% GDP)</i>	<i>82</i>
<i>Annex 9 – Government Expenditure on Tertiary Education (%Total Expenditure)</i>	<i>84</i>
<i>Annex 10 – Institutional and Programme Reviews in State Universities</i>	<i>86</i>
<i>Annex 11 – Global Competitiveness Index Statistics - Global Comparison</i>	<i>89</i>
<i>Annex 12 – Global Competitiveness Index Statistics - Middle Income Countries.....</i>	<i>97</i>
<i>Annex 13 – Global Competitiveness Index Statistics - Lower Middle Income Countries</i>	<i>100</i>

1. Introduction

1.1. Background and Scope

At present there is a great deal of debate in Sri Lanka about the question of private sector participation in tertiary education. The arguments made within these debates are based on strong opinions and, for the most part, lack supporting data and information. The quality of debate and argumentation on this topic can be improved significantly by bringing relevant facts and information into the public space. This study provides a review of existing/available data and information that could help to improve the quality of discussion around this important issue.

This study presents a review of the topics relevant to the debate, which include: the structure of the tertiary education sector, the legislation underlying the establishment of tertiary education establishments, and the current quality assurance and accreditation procedures for tertiary education institutions. Additionally, the study contains subject specific information on the educational sectors of medicine, engineering, law, architecture and the arts. Apart from collating and analyzing some of the information, the study does not aim to draw specific conclusions on either side of the current debate on private sector participation in tertiary education; rather, it aims to inform both sides of the debate.

1.2. Methodology

The starting point for this study was the ongoing debate on private sector participation in tertiary medical education. The different perspectives of the discussion were understood by examining Sinhala press reporting on the topic through a weekly publication produced by Verité Research called The Media Analysis (TMA).¹ Past TMA issues, covering relevant reporting from 2014 to the present, indicated that the arguments around private medical education were centred on three themes: justice, quality and access to employment. Refer Annex 1 for the full summary of arguments presented.

The arguments on justice question the fairness of allowing private medical education into the national education scheme. The arguments on quality focus on the possibility of low quality of private education institutions. The arguments on access focus on the opportunity of students to access education and employment. Using these three themes as a starting point, a list of research questions were formulated. These questions addressed general facts and information about the structure, availability and quality of tertiary education institutes in the country.

In order to answer these questions, research was first conducted through secondary sources, including research reports, government documents and legislation. Then, interviews were conducted with key individuals in the education and health sectors in order to fill in gaps in secondary research and answer questions in more detail. Refer

¹ TMA summarises and analyses issues reported in the Sinhala press. It has covered the debate on medical education extensively.

Annex 2 for more details about these interviews. This document presents the research findings.

1.3. Structure

Section II of the document presents a brief overview of educational reforms made in the 1940s that gave rise to the existing national education scheme in Sri Lanka. Section three lays out the structure of the tertiary education landscape as well as the admissions procedures and costs associated with each type of tertiary education institution. Section four outlines the private, fee-levying tertiary education avenues available in Sri Lanka. Section five describes the quality assurance and accreditation processes for the different types of tertiary education institution in addition to the procedures mandated by professional bodies. Finally, Section six indicates Sri Lanka's performance in international rankings and indicators on quality of education.

2. Educational Reforms in Sri Lanka

Section II provides a brief summary of the reforms made in the 1940s that lead to today's national (and free) education scheme. These reforms were proposed by a Committee headed by C.W.W. Kannangara. Below is background information on the study that led to the reforms and a summary of the proposals made.

2.1. Brief background to reforms in the education sector

Sri Lanka's education scheme is credited to C.W.W. Kannangara (1884 – 1969) who was the Minister for Education in the Ceylon State Council (the country's legislature from 1931 to 1947). Kannangara is often cited as the 'Father of Free Education' in Sri Lanka and his vision is defended in arguments opposing private education, especially private medical education.

In 1940, the State Council ordered that a Special Committee on Education be established to 1) conduct a thorough survey of the country's education system and policies and 2) recommend reforms geared to 'update' the existing system. This Special Committee was to be formed by members of the State Council's Executive Committee on Education and other education experts in Ceylon. As the Chairman of the Executive Committee on Education, and therefore the Minister for Education, C.W.W. Kannangara became the Chairman of the Special Committee on Education. The report he wrote on the Special Committee's investigation is recorded as Sessional Paper 24 of 1943. This report is the source of the information in this section.

2.2. Proposals made through Kannangara Reforms

The Report of the Special Committee on Education establishes the aims of education, which Kannangara defines as 1) mental development/mental discipline, 2) culture and 3) efficiency.

It notes the major defects in that education system as being: 1) the existence of two types of education according to the medium of instruction used; 2) excessive uniformity in post-primary school, which was academic and had little to do with practical aspects of life; 3) absence of equality of opportunity created by fee-paying education alternatives; and 4) ineffectiveness of the 'compulsory education' policy due to the insufficiency of schools, the poverty and apathy of parents, and difficulties in enforcing compulsory education. Other defects included: inadequacy of physical facilities, over-emphasis on examinations, narrowness of secondary school curricula, inadequacy of facilities for differently-abled students and the high drop-out rate of students at the end of primary education.

As such, recommendations were made in the following areas:

- 1) Control of education; and
- 2) Grading, Classification and Organisation of Schools
 - a. Medium of Instruction
 - b. Examinations
 - c. Supply of Teachers

- d. Educational Finance
- e. Educational Administration

(Refer Annex 3 for the full list of recommendations under these main areas.)

3. Structure of Tertiary Education in Sri Lanka

Section III identifies the different institutional structures that comprise Sri Lanka's tertiary education sector. For each type of institution, the following information is presented: 1) governing legislation, 2) admissions systems, and 3) cost of attendance. Additionally, the section presents a comparison of Sri Lanka's educational costs with those of other middle-income countries.

3.1. Structure of tertiary education and underlying legislation

Sri Lanka's tertiary education sector comprises the following institutional categories:

- a) Higher educational institutions (state universities)
- b) Higher educational institutes (state-affiliated institutions)
- c) Government non-UGC institutions ²
- d) Private institutions with degree-awarding status
- e) Foreign-degree awarding institutes
- f) Vocational education and training institutes³

The main piece of legislation governing tertiary education in Sri Lanka is the Universities Act No. 16 of 1978. However, not all tertiary education institutions are governed by this Act. Each type of institution has its own processes for recognition, accreditation, and establishment and maintenance of standards. These differences are outlined below.

(a) Higher Educational Institutions (State Universities)⁴

This refers to a University, Campus, Open University, University College, or Centre for Higher Learning established or deemed to be established under the Universities Act No. 16 of 1978 (Sec 147 of 1978 Act). Sections 21 to 27 of the 1978 Act authorises the Minister of Higher Education (Min. of HE) to establish these institutions following the procedure laid in the Act. The full list of state universities is presented below (refer Table 1).

² Not all government-run institutions fall under the University Grants Commission (UGC), which is under the Ministry of Higher Education. These institutions fall directly under a range of ministries. For a full list of government non-UGC institutions, refer Table 2.

³ Although this document includes a basic overview of vocational training and education institutes, it will not discuss this type of higher education institute in detail.

⁴ The terms 'higher education institute/institution' and 'higher educational institute/institution' appear in source material interchangeably. They are also used interchangeably in this report.

Table 1: State Universities Established Under the Universities Act No. 16 of 1978

University Name
University of Colombo*
University of Peradeniya *
University of Sri Jayawardenapura *
University of Kelaniya*
University of Moratuwa *
University of Jaffna*
University of Ruhuna
University of the Visual and Performing Arts
The Open University of Sri Lanka
Eastern University, Sri Lanka
South Eastern University of Sri Lanka
Rajarata University of Sri Lanka
Sabaragamuwa University of Sri Lanka
Wayamba University of Sri Lanka
Uva Wellassa University

Source: Universities Act No. 16 of 1978, Section 139 (1).

*These Higher Educational institutions were initially governed under the University of Ceylon Act No. 1 of 1972. With repeal of the University of Ceylon Act No. 1 of 1972, the institutions established under the previous (1972) Act were deemed to be established by Order made under Section 21 of the 1978 Act.⁵

(b) Higher Educational Institutes (State-affiliated Institutes)

Higher Educational Institutes refer to an Institute for Higher Learning established or deemed to be established under Section 24A or 24B of the 1978 Act; The Minister, in consultation with the Commission, can:

- establish an Institute or Centre for Higher Learning to provide higher education in specific topics (Section 24A of the 1978 Act); and
- recognise an institute or college as an Institute or Centre for higher learning for the purpose of providing, promoting and developing higher education, and by Order, affiliate such institute or college to a Higher Educational Institution

⁵ Universities Act No.16 of 1978, Section 139.

(Section 24B of the 1978 Act). Once affiliated – all movable and immovable property – is transferred to the Higher Educational Institution, along with transfer of employment (Section 24B(2)(a) and (b) of the 1978 Act).

These institutes award certificates, diplomas and degrees from their parent universities. Examples of this type of institute include the Institute of Indigenous Medicine, University of Colombo School of Computing, Gampaha Wickremarachchi Ayurveda Institute and the Institute of Technology University of Moratuwa. Refer Annex 4 for a full list of Higher Educational Institutes.

(c) Government Non-UGC Institutions

These are universities that function outside the purview of the University Grants Commission; these universities fall directly under government ministries. A list of these institutions and their governing ministries is presented below (refer Table 2).

Table 2: Government Non-UGC Institutions

Institution	Ministry
The General Sir John Kotelawala Defence University (KDU)	Ministry of Defence
Buddhist and Pali University	Ministry of Higher Education
Buddhasravaka Bhiksu University	
University of Vocational Technology	Ministry of Vocational & Technical Training
National Institute of Education	Ministry of Education
Ocean University of Sri Lanka	Ministry of Skills Development and Vocational Training

Source: "Other Government Universities." *University Grants Commission – Sri Lanka*, 25 July, 2017, <http://www.ugc.ac.lk/en/universities-and-institutes/other-government-universities.html>.

(d) Private Institutions with Degree-Awarding Status

Refers to any institution recognised under the provisions of Section 25A of the Act (incorporated under Amendment Act No. 7 of 1985). These are private institutions granted a degree awarding status in Sri Lanka.

UGC approval to be a Degree Awarding Institution refers to authorization to issue a degree in the institute's own name e.g. for Aquinas College of Higher Studies is granted approval to confer degrees name as BA (Aquinas).

As of 2017, there were 17 such non-state institutes offering 70 recognised degrees and diplomas in IT, Engineering, Medicine, Business and Management, Psychology and Arts.

Examples of these institutes include National Institute of Business Management (NIBM), Colombo International Nautical and Engineering College (CINEC), Horizon, SANASA Campus Ltd., South Asia Institute of Technology and Medicine (SAITM), and Institute of Chartered Accountants of Sri Lanka (ICASL). Most of these institutions are private organisations established under Companies Act 7 of 2007 (or BOI Act No 16 of 1992). Refer Annex 5 for a full list of UGC-approved degree awarding institutes.

(e) Foreign-Degree Awarding Institutes

The only legal provision in this regard is Section 18(2)(g) of the 1978 Act, which provides that the UGC has the power to make an Ordinance to recognise foreign degrees and diplomas and other academic distinctions.

It is also possible for foreign degree awarding private institutes (i.e. private institutions affiliated to a foreign university) to function in Sri Lanka without applying under Section 25A. Public Administration Circular No. 16/92 dated 13th March 1992 recognises universities listed in the International Handbook of Universities and Commonwealth Universities Yearbook. However, the Circular only specifies recognised institutions; it does not mention the status of foreign degree *programs* that are delivered in Sri Lankan campuses.

A distinction can be made between two types of foreign degree awarding institute (FDAI). The first type of FDAI can be termed 'necessary conduits'. These are institutes that students must attend in order to pursue a particular foreign degree. An example would be the Imperial Institute of Higher Education (IIHE), which offers degree programs from the University of Salford, among others. In order for a Sri Lankan student to obtain a degree from the University of Salford (without attending the university in the UK), he or she must register at IIHE, which is listed as a university 'partner' for undergraduate programs.⁶ Thus, IIHE is a 'necessary conduit' through which Sri Lankan students must register in order to receive University of Salford degrees.

The second type of FDAI can be termed 'assistive conduits'. These institutes provide services to students to aid them in obtaining foreign degrees, but are not a necessary part of the process. An example would be Royal Institute, which offers tuition support for select University of London International Programmes. Although almost all of the International Programmes can be completed through self-study as indicated online⁷, students can opt to attend classes at local institutions. The University of London has a framework to recognise such institutions. Under this framework, Royal Institute is recognised as an Affiliate Centre (the highest possible level of recognition).⁸ In sum, although Royal Institute is recognised by the University of London for its tutoring

⁶ "Undergraduate Partners." *University of Salford, Manchester*, <http://www.salford.ac.uk/international/education-partners/undergraduate-partners>. Accessed 23 Nov. 2017.

⁷ "Information for Students." *University of London International Programmes*, <http://www.londoninternational.ac.uk/teaching-institutions>. Accessed 23 Nov. 2017.

⁸ "Directory of Teaching Institutions." *University of London International Programmes*, <http://www.londoninternational.ac.uk/online-search/institutions>. Accessed 23 Nov. 2017.

services, it is a body that *assists students that choose to enlist its services*. As such, it can be considered an 'assistive conduit'.

There are also institutes that offer 'mandatory' transfer programmes to Sri Lankan students. An example is the Colombo International Nautical and Engineering College (CINEC). CINEC offers '2+2' transfer programs in undergraduate degrees in Electrical and Electronic Engineering,⁹ Mechanical Engineering¹⁰ and Naval Architecture¹¹. Students enrolled in these programs complete the first two years of each degree at CINEC in Sri Lanka and then are required to transfer to the relevant foreign university to complete the final two years. In the case of the two Engineering degrees mentioned above, students transfer to the University of Adelaide, Australia, and in the case of the Naval Architecture degree, students transfer to the Australian Maritime College. In some cases, transfer is conditional on the student's meeting a minimum English language requirement.

Some Degree Awarding Institutes discussed above under section 3.1(d) offer Sri Lankan students access to foreign degrees. Examples include Sri Lanka Institute of Information Technology (SLIIT) and the Institute of Technological Studies. For examples of Foreign Degree Awarding Institutes, refer Figure 13 in Section 4.2 titled *Foreign degree options for Sri Lankan students*. However, Figure 13 does not distinguish between the types of foreign degree awarding institutes outlined above.

(f) Vocational Education and Training Institutes

Vocational training institutes – both public and private – are regulated by the Tertiary and Vocational Education Act No. 20 of 1990. All institutions providing tertiary and vocational education are required to register under the abovementioned Act (Section 14(1) of the 1990 Act).

The Tertiary and Vocational Education Commission (TVEC) established in 1991 functions as the apex body for the technical and vocational education and training sector under this Act, and functions under the Ministry of Skills Development and Vocational Training. Its primary responsibility is policy formulation, planning, quality assurance, coordination and development of tertiary and vocational education in the country.¹²

⁹ "BE Electrical & Electronic Engineering." *CINEC Institute of Higher Education*, <http://www.cinec.edu/courses/beng-hons-electrical-electronic-engineering.html>. Accessed 29 Nov. 2017.

¹⁰ "BE Mechanical Engineering." *CINEC Institute of Higher Education*, <http://www.cinec.edu/courses/be-mechanical-engineering.html>. Accessed 29 Nov. 2017.

¹¹ "BEng (Hons) Naval Architecture." *CINEC Institute of Higher Education*, <http://www.cinec.edu/courses/beng-hons-naval-architecture.html>. Accessed 29 Nov 2017.

¹² "About Us." *Tertiary and Vocational Education Commission – Ministry of Skills Development and Vocational Training*, 18 Sep. 2017, http://www.tvec.gov.lk/?page_id=43.

3.2. Admission to Tertiary Education Institutes in Sri Lanka

This section presents information on the admissions procedures used by different tertiary education institutes. It then presents statistics on admissions rates for the most popular fields of study and on district-representation among admitted students.

3.2.1. Admission Procedures for Tertiary Education Institutions

(a) Higher Educational Institutions (State Universities)

Entry to Sri Lankan state universities that fall under the UGC is based on the results of the local General Certificate of Education (GCE) A-Level examinations, which are conducted by the Department of Examinations under the Ministry of Education. Each student sits his or her A-Levels in a particular stream. Streams include, Arts, Commerce, Biological Science, Physical Science, Engineering Technology and Biosystems Technology. Students must choose three subjects in their chosen stream. The results of the GCE A-Levels are then calculated as follows. The raw marks of all the results in a given subject are collected and the mean score and standard deviation of the scores is calculated. The marks are then standardised on a normal distribution. The standardised score of each student is called the 'z score' and measures the number of standard deviations away from the mean score. The students' z score for the three subjects sat are then averaged to arrive at an overall z score for each student. Z scores allow the comparison of student performance across different subjects. This is an alternative to comparing raw scores, which faces the problem that some exams will have higher average raw scores than others.¹³

Sri Lanka's policy for university entrance differs by stream. For the Arts stream - in almost all cases - the All Island Merit List is the main criterion used for selection.¹⁴ The Merit List is a performance ranking of the A-Level results from highest to lowest z score. For all other streams, selection is based on the affirmative action (AA) scheme. The scheme is as follows.

Each university department sets out its intake for that year. The total number of places is filled according to the quotas below.¹⁵

- 1) 40% of those spaces are filled through the National Merit List - a performance ranking of all students sitting the relevant A-level subjects that year, irrespective of their district.
- 2) The next 55% of the spaces are chosen through a district quota system. Students registering for A-Levels must indicate with evidence the administrative districts in which they have spent their last three years of secondary education. Students are chosen from each district based on a population ratio: of the district

¹³ University Grants Commission Sri Lanka, *Admission to Undergraduate Courses of the Universities in Sri Lanka - Academic Year 2016/2017*, p10. Accessed 1 Sep 2017, http://www.ugc.ac.lk/downloads/admissions/Handbook_2016_17/HANDBOOK%20%202016-2017%20ENGLISH.pdf.

¹⁴ A district quota is used to fill places in some courses. Refer p8 of UGC *Admission to Undergraduate Courses for Universities in Sri Lanka* for more information.

¹⁵ de Mel, N and Aloka Kumara, "Education Inequality and Affirmative Action - Towards a Better Estimation", 2014. Accessed on 3rd June 2017.

population to the national population. For example, if district X had a population of five million and the national population were 21 million, the district population as a ratio of the national population would be 0.24. The same ratio would be used to determine the number of students admitted from district X: 0.24 of the total number of students admitted through the district quota would be allocated to students from district X.

- 3) The last 5% of the spaces come from the disadvantaged district quota. There are 16 districts that are identified as 'disadvantaged districts'.¹⁶ Again, the quota is allocated based on a population ratio: the ratio of the population of each disadvantaged district to the total population of the 16 disadvantaged districts. For example, if district Y were a disadvantaged district with a population of four million and the total population of the 16 disadvantaged districts were 15 million, then the ratio of the district X population to the total disadvantaged population would be 0.27. This ratio would then be used to determine the number of students admitted from district Y: 0.27 of the total number of students admitted through the disadvantaged district quota would be allocated to students from district Y.

(b) Higher Educational Institutes

The application processes for these institutes differ. For the institutes that offer undergraduate degrees, such as the Institute of Indigenous Medicine and Gampaha Wickramaarachchi Ayurveda Institute, admission is determined by the UGC.

The Institute of Technology University of Moratuwa conducts its own admissions process. As the program offered is a Diploma and not a Degree, the UGC is not involved in undergraduate admissions. However, the UGC provides all the resources needed to run the Institute. Admission to the Institute is determined through a multi-step process. First, the Institute calls for applications. It accepts A/Level results up to three years prior to the year of application. From the applications received, the Institute shortlists candidates to sit an entrance exam based on their positions in the National Merit List and their district of origin. From the students who pass, the institute further shortlists students for acceptance based on their position in the Merit List and their district of origin.

The Institute of Agro Technology and Rural Sciences does not admit any undergraduates yet, and so the issue of who determines undergraduate admissions is not applicable.

The admissions processes for the other institutes in this category were unclear. Further research is required to determine this information.

(c) Government Non-UGC Institutions

Applications for admission are directly sent by the applicants to the institutions and processed by these institutions.

¹⁶ The disadvantaged districts are Nuwara Eliya, Hambantota, Jaffna, Kilinochchi, Mannar, Mullaitivu, Vavuniya, Trincomalee, Batticaloa, Ampara, Puttalam, Anuradhapura, Polonnaruwa, Badulla, Monaragala and Ratnapura.

(d) Private Institutions with Degree-Awarding Status

Applications for admission are sent directly to and processed by the degree-awarding institutes.

(d) Foreign-Degree Awarding Institutes

Applications for admission are sent directly to and processed by the foreign degree-awarding institute.

3.2.2. Current Status of Admission to Courses at State Universities

The terminology used in the assessment below is defined as follows. A *student qualified for university entrance*, according to the University Grants Commission (UGC), refers to a student who has obtained 3 simple passes in their A/Level exams – the minimum score for university admission. A *student admitted to a state university* refers to a student who has been shortlisted for university admission out of those qualified. The *admission rate* refers to the number of students admitted as a percentage of those qualified (and **not** as a percentage of the total number that applied). The assessment considers data from the past ten years (2006-2016).

(a) Overall Assessment of qualified vs. admitted students

Out of the 155,550 students who qualified for university entrance following the 2015 A/Level examinations, only 29,055 students (or 18.68%) were admitted to a state university for the academic year 2015/2016. This left a total of 126,495 qualified students without access to a state-funded university education.

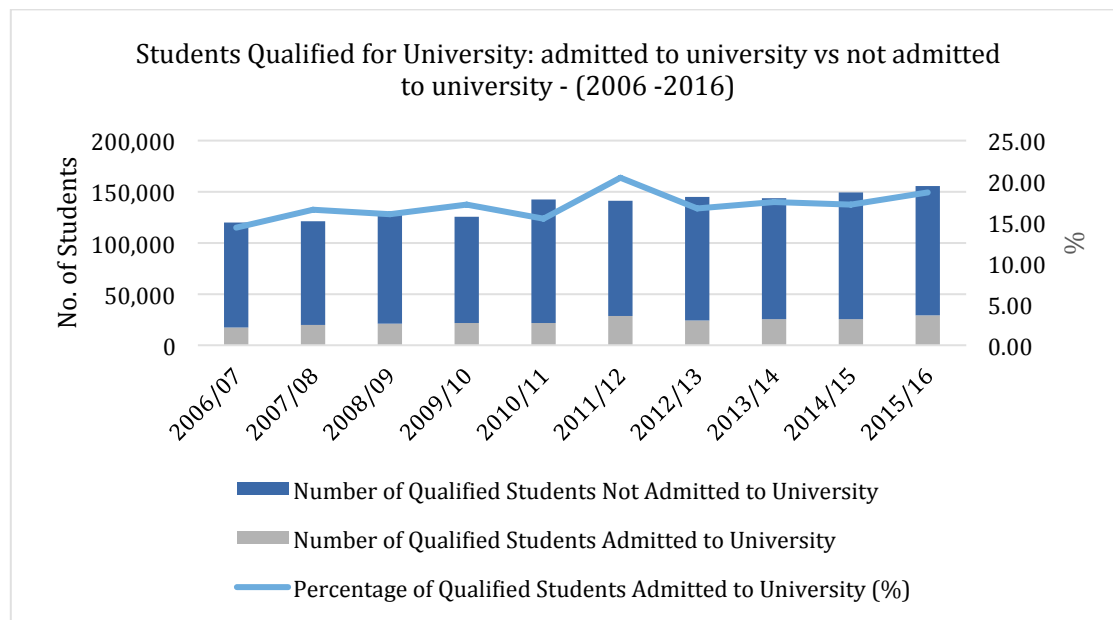
In contrast, the corresponding figures from ten years ago are as follows. 119,955 students were qualified for university entrance following the 2006 A/Level examinations out of which 17,196 students (or 14.34%) were admitted to university for the academic year 2006/07. This left 102,759 qualified students without access to a state-funded university education.¹⁷

Despite there being a 69% increase in the number of students being admitted to university between the 2006 and 2016, there has also been an a 23% increase in the number of qualified students without access to university education. This can be explained by the fact that the pool of qualified applicants has grown considerably in this time period: from 119,955 in 2006 to 155,550 in 2015 (an increase of 30%).

¹⁷ University Grants Commission - Sri Lanka. "Number of Candidates Qualifying and Admitted to Undergraduate Courses of the Higher Educational Institutions." *Sri Lanka University Statistics 2010-2016*, Chapter 2 -University Admissions, Table 02-01. www.ugc.ac.lk,
 Link (2016): http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf.
 Link (2013): http://www.ugc.ac.lk/downloads/statistics/stat_2013/chapter2.pdf.
 Link (2010): http://www.ugc.ac.lk/downloads/statistics/stat_2010/Chapter2.pdf. Accessed 02 Oct. 2017.

The above data is summarised in the below (refer figure 1). Note that the peak in admission rate for 2011/2012 academic year was due to the settlement of a litigation matter regarding the calculation of z-scores.¹⁸

Figure 1. Overall Number of Qualified Students Admitted and Not Admitted to University for University from 2006-2016



Source: University Grants Commission – Sri Lanka (refer Footnote 10).

(b) Districtwise Assessment of qualified vs. admitted students (2015/16)

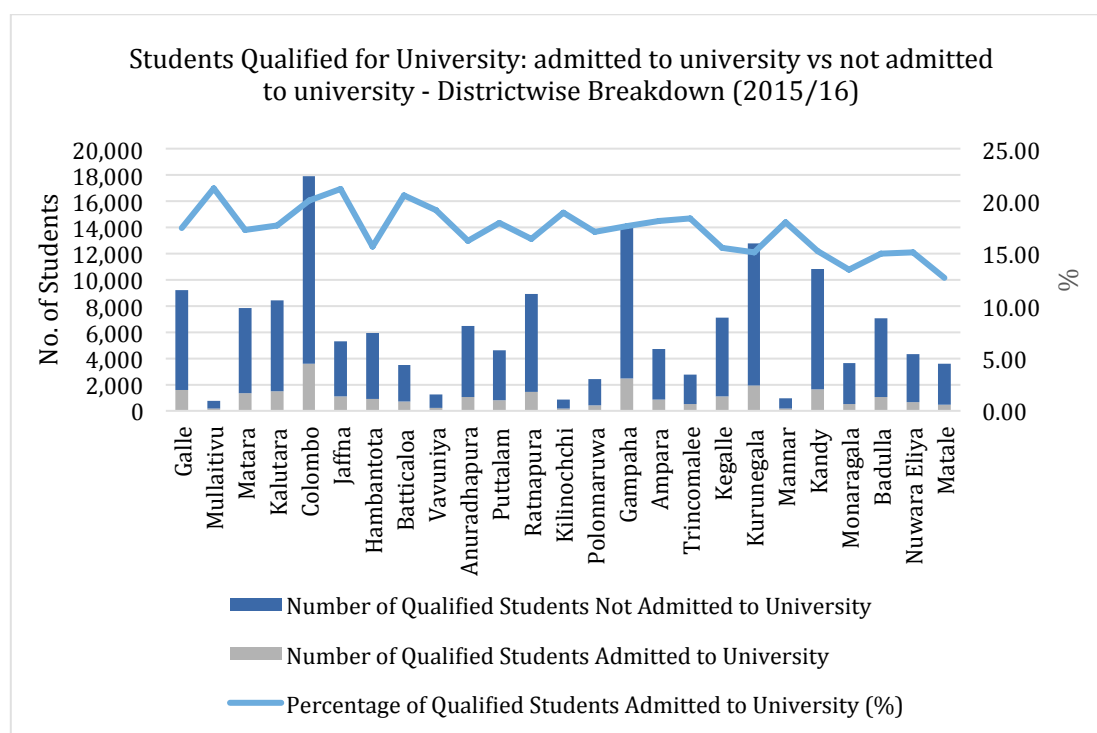
Below is a measure of the percentage of qualified students admitted to university from each district for the 2015/16 academic year. It is apparent that the districts where the highest percentages of qualified students were admitted to university were Mullaitivu, Jaffna, Batticaloa and Colombo. In these districts, over 20% of qualified students were admitted. The districts with lowest admission rates of qualified students were Matale (12.69%), Monaragala (13.51%) and Badulla (15.04%).^{19 20} This data is summarised below (refer Figure 2). Given the Affirmative Action system for admission, a high admission rate can indicate either a low rate of students attempting A’Levels or a high level of performance on the Merit List. Thus, there is no straightforward interpretation of the admissions rate without further analysis.

¹⁸ Ibid.

¹⁹ Number of Students who Qualified by District: Department of Examinations - Sri Lanka. “Performance of All Candidates by District Arranged in Descending Order of Eligible Percentage.” *GCE (A/L) Examination 2015 Performance of Candidates*, p9, <http://www.doenets.lk/exam/docs/comm/A.L%202015.pdf>. Accessed on 2nd Oct. 2017.

²⁰Number of Students Admitted by District: University Grants Commission - Sri Lanka. “Undergraduate Admission by District: Academic Year 2015/2016.” *Sri Lanka University Statistics 2016*, Chapter 2 - University Admissions, Table 02-03, http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed on 2nd Oct. 2017.

Figure 2. Districtwise Breakdown of Number of Qualified Students Admitted and Not Admitted to University in Academic Year 2015/16



Source: Department of Examinations; University Grants Commission – Sri Lanka (refer Footnotes 12 and 13).

It is also important to note that the above numbers do not take into account the number of students who sit for the Edexcel or Cambridge A/L examinations. Students who do not sit the local GCE A/Levels are not eligible to enter state universities and therefore do not have access to a state-funded education.

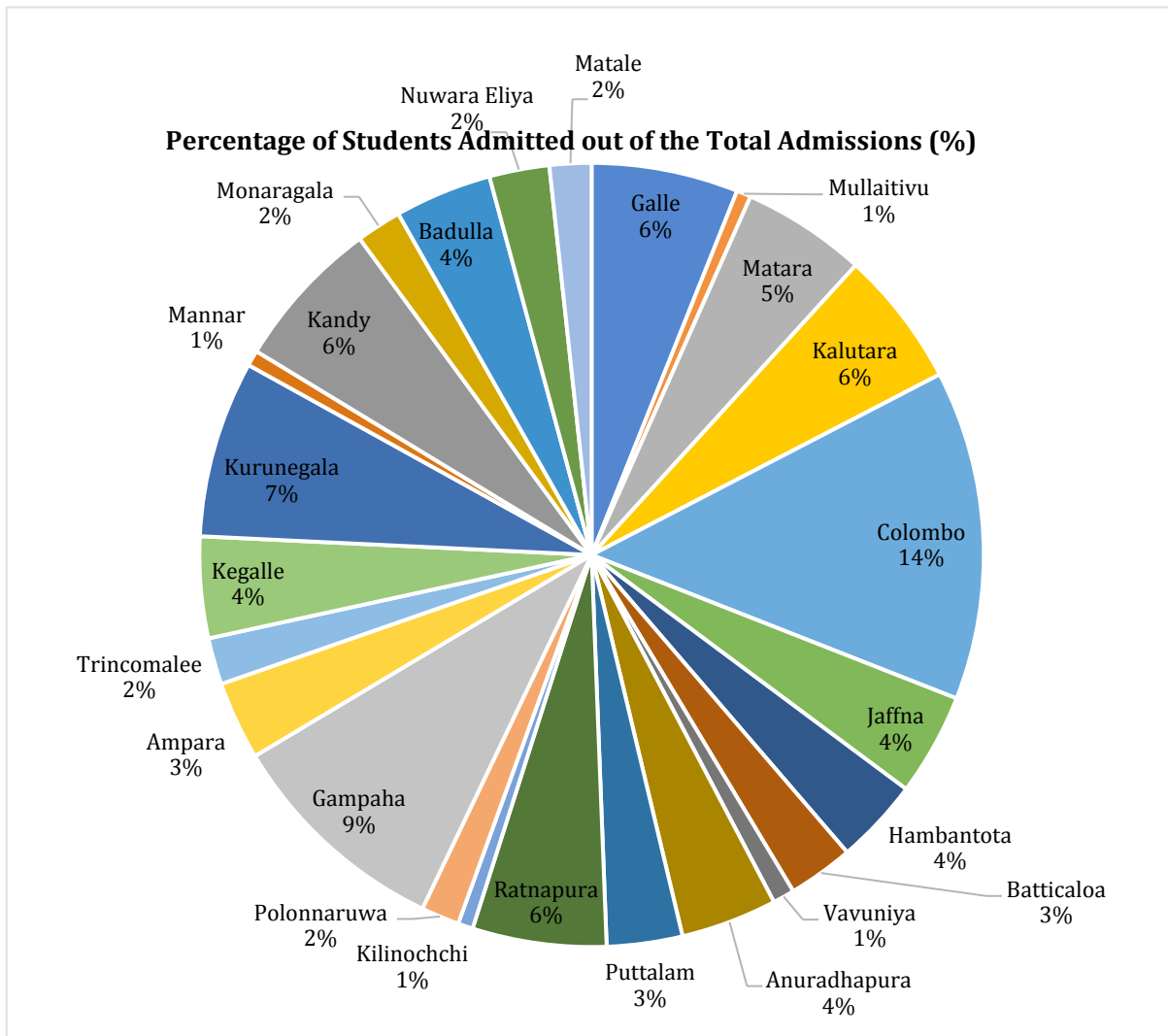
(Refer Annex 6 for details of student admissions and districtwise breakdown of Students Admissions.)

(c) Districtwise Assessment of Admitted Students

The following section considers the entire pool of students admitted to university in the 2015/16 academic year. Within this pool, the district from which the highest number of students originates was Colombo - students from Colombo comprised 13.58% of the total pool of admitted students. The district with the second highest representation was Gampaha with a figure of 9.33%, followed by Kurunegala (7.29%), Kandy (6.24%) and Galle (6.05%). Conversely, the districts of Vavuniya, Mannar, Kilinochchi and Mullaitivu were the least represented in the student body, with 0.90%, 0.64%, 0.62% and 0.59% of students originating from each of these districts, respectively. ²¹²² This data is summarised below (refer Figure 3).

²¹ Ibid.

Figure 3. District Breakdown of Admitted Students



Source: University Grants Commission – Sri Lanka (refer Footnote 13).

(d) Assessment of qualifying vs. admitted students by A/Level stream of study

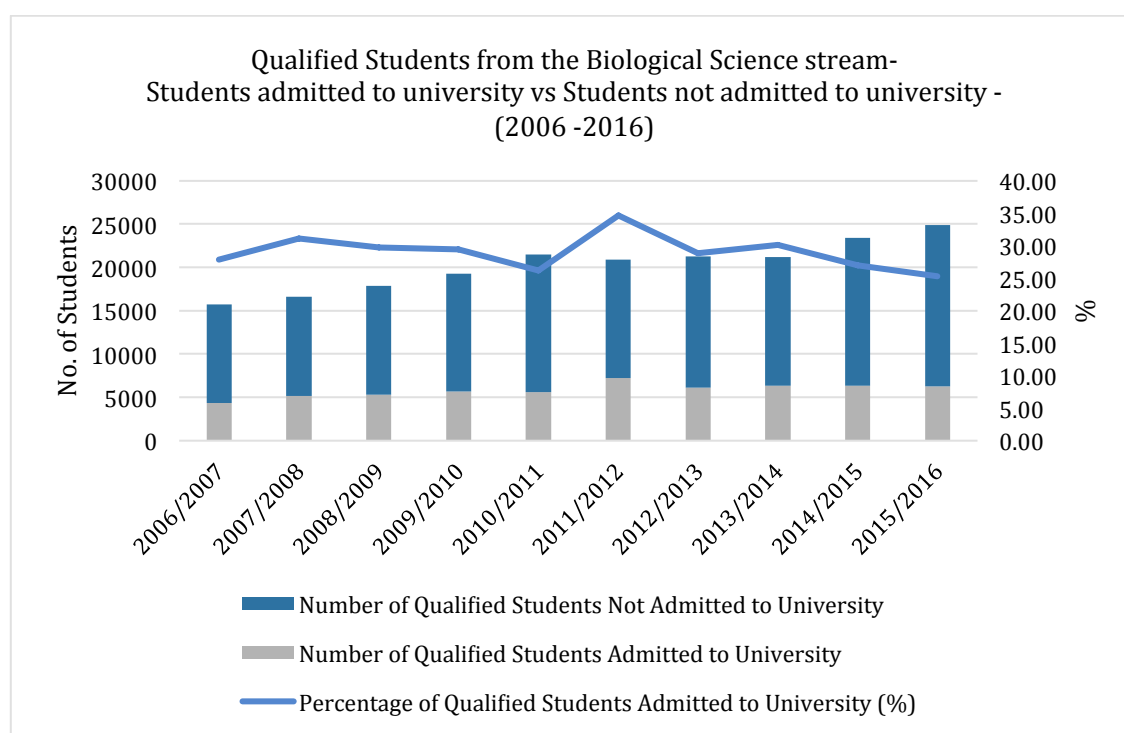
The assessment below compares the number of students admitted to university as a proportion of the number qualifying for university across different A/Level streams. The streams considered were Biological Sciences, Physical Sciences, Commerce and Arts.

²² A high figure for a district does not mean that the district is advantaged as it does not indicate the per capita admission rate. To elaborate, although Kurunegala was one of the 'best-represented' districts in the 2015/16 academic year applicant pool - comprising over 7% of total pool - the number of students admitted from Kurunegala was a relatively small proportion (15.12%) of the number that qualified from this district. Conversely, although Mullaitivu is the 'least-represented' district - comprising 0.59% of the admitted student pool - the number of students admitted from there was a relatively higher proportion (21.22%) of the number of qualified students from this district.

(i) Biological Sciences

Between 2006 and 2016, an average of 29.01% of qualified students (i.e. scored three simple passes) from the Biological Sciences A/Level stream were admitted to university. While in absolute terms, there was an increase in the number of qualified students admitted to university (from 4384 in 2006/2007 to 6288 in 2015/2016), the *percentage* of admitted students as a proportion of qualified students has decreased (from 27.89% to 25.28%). The number of qualified students who did not gain admission to state universities increased: from 11,334 in 2006/2007 to 18,589 in 2015/2016, which is a 64.01% increase.²³ Despite admitting a higher number of students from the Biological Sciences stream over time, universities are accepting a smaller *portion* of students from the pool of qualified students, which shows a clear increasing trend over time. This information is summarised below (refer Figure 4).

Figure 4. Qualified Students Admitted and Not Admitted to University from Biological Sciences A/Level Stream from 2006-2016



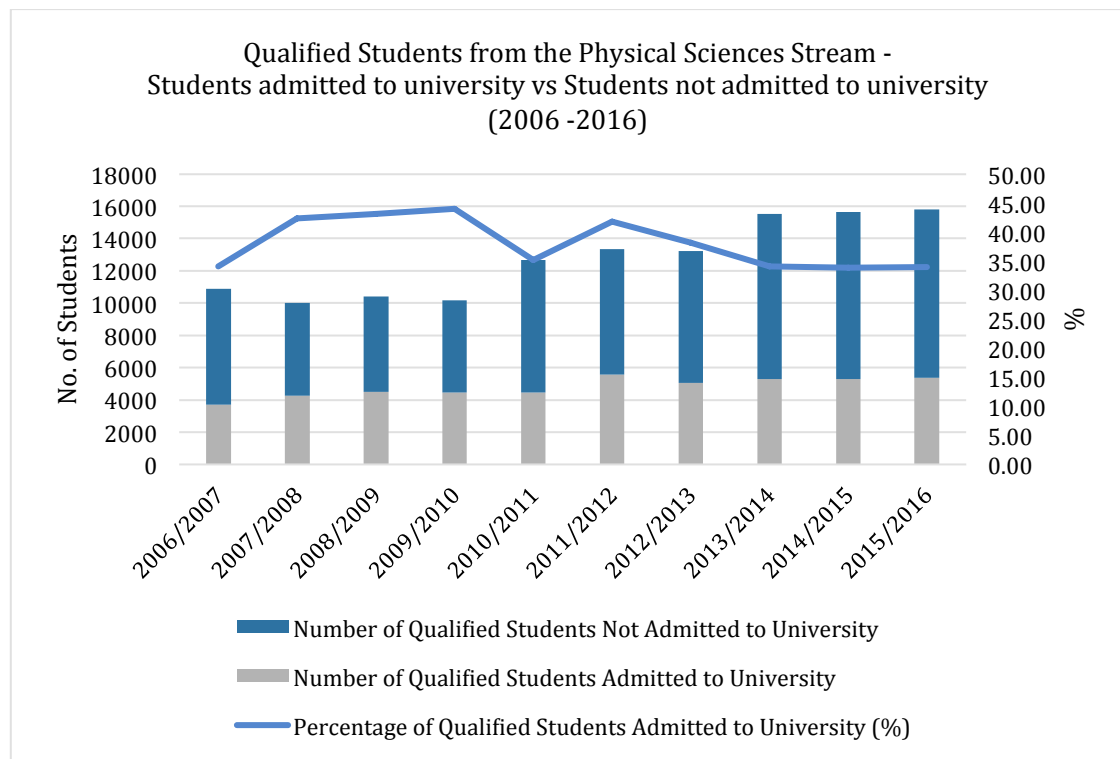
Source: University Grants Commission – Sri Lanka (refer Footnote 16).

²³ University Grants Commission - Sri Lanka. "Number of Candidates Qualifying and Admitted to Undergraduate Courses of the Higher Educational Institutions." *Sri Lanka University Statistics 2010-2016*, Chapter 2 -University Admissions,Table 02-01.
 Link (2016): http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf.
 Link (2013): http://www.ugc.ac.lk/downloads/statistics/stat_2013/chapter2.pdf.
 Link (2010): http://www.ugc.ac.lk/downloads/statistics/stat_2010/Chapter2.pdf. Accessed 02 Oct. 2017.

(ii) Physical Sciences

Between 2006 and 2015, an average of 38.05% of qualified students from the A' Level Physical Sciences stream were admitted to university. As is the case with students from the Biological Sciences stream (see above), the absolute number of qualified students from this stream that were admitted to university has increased (from 3711 in 2006/2007 to 5374 in 2015/2016). However, the *percentage* of admitted students as a proportion of qualified students has decreased (from 34.06% in the 2006/2007 academic year to 33.99% in the 2015/2016 academic year). Additionally, the number of qualified students who did not gain admission has also increased – from 7,186 in 2006/2007 to 10,435 in 2015/2016, which is a 45.21% increase.²⁴ From this data it is evident that as in the case of the Biological Sciences, despite there being an increase in student admissions over the years in absolute numbers, universities are admitting a smaller portion of students from the pool of qualified students, which shows a clear increasing trend over time. Additionally, it is clear that This information is summarised below (refer Figure 5).

Figure 5. Qualified Students Admitted and Not Admitted to University from Physical Sciences A' Level Stream from 2006-2016



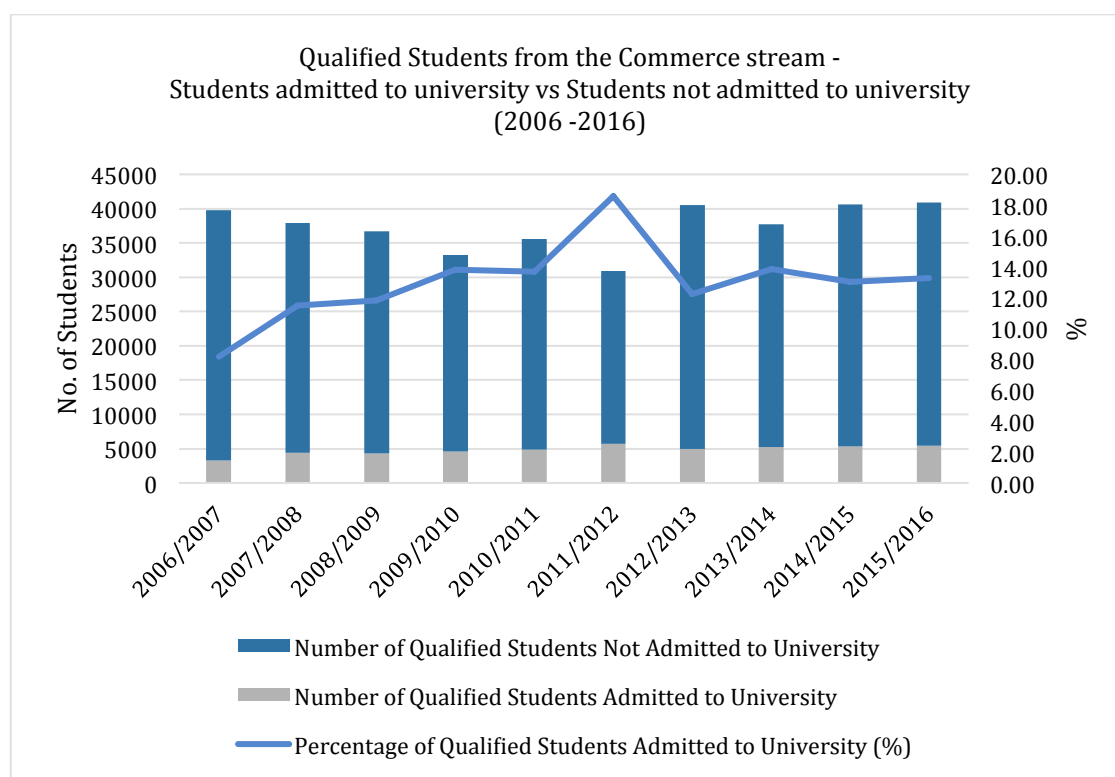
Source: University Grants Commission – Sri Lanka (refer Footnote 16).

²⁴ Ibid.

(iii) Commerce

Between 2006 and 2016, an average of 13% of qualified students from the A/Level Commerce stream were admitted to university. The absolute figures of qualified students admitted has increased in this time period – from 3,252 in 2006/2007 to 5,441 in 2015/2016. Additionally, and in contrast to the Biological and Physical Sciences, the percentage of admitted students as a proportion of qualified students has also increased over time: from 8.18% in the 2006/2007 academic year to 13.30% in the 2015/2016 academic year. Also in contrast to the Biological and Physical Sciences, the number of qualified students from this stream who did not gain admission to university has decreased: from 36,506 in 2006/2007 to 35,477 in 2015/2016, which is a 2.8% decrease.²⁵ In sum, in the case of Commerce, there has been an increase in student admissions over the years in absolute numbers as well as an increase in the portion of students admitted from the pool of qualified applicants. Notably, unlike in the cases of the Biological and Physical Sciences, the size of the applicant pool does not show a clear increasing trend over time. Instead, between 2006 and 2015, the size of the pool of qualified students decreased and then increased again to approximately the 2006 figure. This information is summarised below (refer Figure 6).

Figure 6. Qualified Students Admitted and Not Admitted to University from Commerce A/Level Stream from 2006-2016



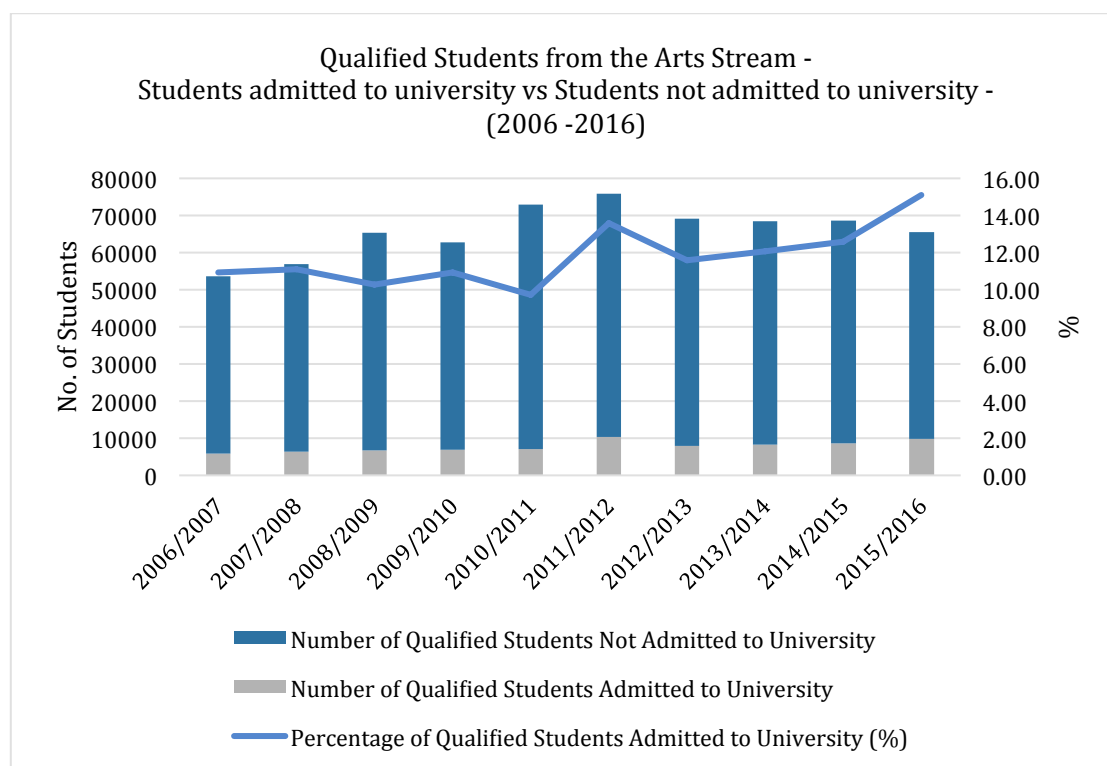
Source: University Grants Commission – Sri Lanka (refer Footnote 16).

²⁵ Ibid.

(iv) Arts

Between 2006 and 2016, an average of 11.77% of qualified students from the A' Level Arts stream were admitted to a university. As in the case of Commerce (refer Figure 6) the absolute number of qualified students admitted to university increased from 5849 in 2006/2007 to 9,891 in 2015/2016. Additionally, the percentage of qualified students from this stream that were admitted to university also increased: from 10.92% in the 2006/2007 academic year to 15.1% in the 2015/2016 academic year. However, the number of qualified students from the Arts stream who did not gain admission to state universities has also increased: from 47,733 in 2006/2007 to 55,620 in 2015/2016, which is a 16.52% increase.²⁶ Thus, universities are not only admitting a higher *number* of qualified students from the Arts stream over time, but they are also admitting a higher proportion of students from the pool of qualified students. Unlike in the cases of the Biological and Physical Sciences, the size of the qualified pool of students does not show an increasing trend over time. Instead, the size of the pool showed an increasing trend from 2006 to 2011 and a slight decreasing trend from 2011 to 2015. This information is summarised below (refer Figure 7).

Figure 7. Qualified Students Admitted and Not Admitted to University from Arts A' Level Stream from 2006-2016



Source: University Grants Commission – Sri Lanka (refer Footnote 16).

²⁶ Ibid.

The above data indicates that admission rates to universities on average are highest for qualified students from the Physical Sciences stream (38.05%). The next highest admission rates for qualified students in the Biological Sciences stream (29.01%), followed by the Commerce stream (13%) and finally the Arts stream (11.77%). Thus, the Arts and Commerce streams have a higher percentage of qualified students that do not gain access to a university education compared to the Physical Sciences and Biological Sciences streams.

(e) Admissions statistics by the university course of study (for the academic year 2015/2016)

The assessment below will analyse the composition of students who are admitted to university for different courses of study. Within each course of study, the composition of students will be analysed by district of origin. Within each district, the composition of students who entered through the National Merit List will be compared.

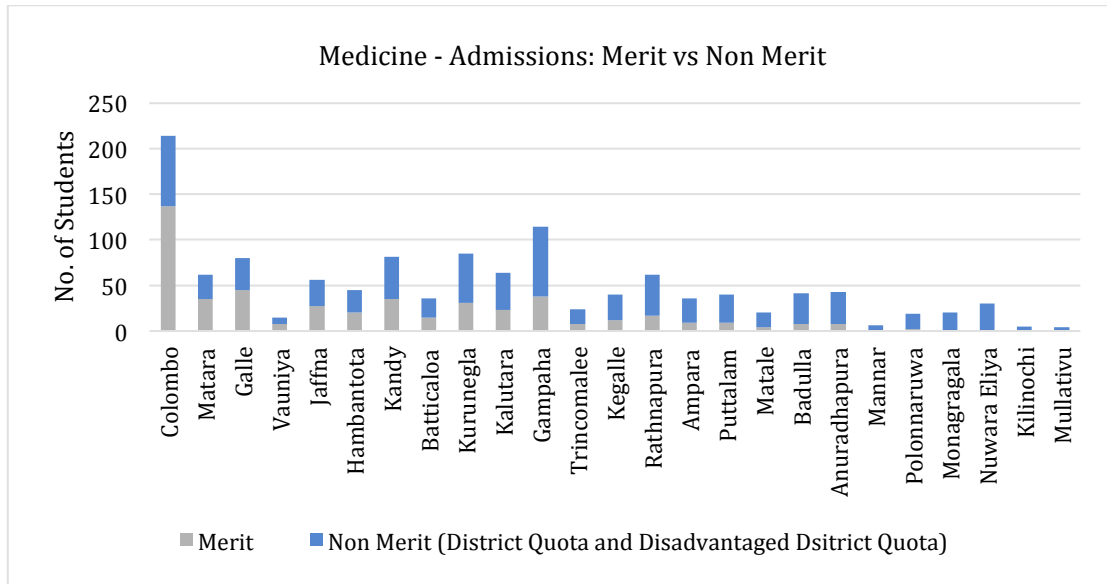
(i) Medicine

It can be observed that of the total number of students admitted to universities for Medicine, 17.23% come from the Colombo district, 9.18% come from the Gampaha district, 6.84% Kurunegala, 6.52% from Kandy and 6.44% from Galle. Mannar, Killinochi and Mullaitivu account for the smallest portions of Medicine admissions, accounting for 0.48%, 0.40% and 0.32% of all admissions, respectively.

Students are admitted to universities through the national affirmative action scheme, and therefore through one of the following admissions categories: the National Merit List, district quota or disadvantaged district quota (Refer Section 3.2.1 a) for an explanation of Sri Lanka's affirmative action scheme). The district with the highest proportion of students admitted for Medicine through the National Merit List was Colombo, with 64.02% of total admission from Colombo for Medicine being through the National Merit List. Matara and Galle followed, with 56.45% and 56.25%, respectively, followed by Vavuniya with 53.33%, and Jaffna with 48.21%. At the bottom of the rankings were Nuwara Eliya, with 3.33%, and Kilinochchi and Mullaitivu, each with figures of 0%. In other words, no students from Kilinochchi and Mullaitivu were admitted to university for Medicine from the Merit List. Rather, the five students from Kilinochchi and four students from Mullaitivu admitted for medicine were admitted through either the district quota or disadvantaged district quota.²⁷ This information is summarised below (refer Figure 8).

²⁷ University Grants Commission - Sri Lanka. "Undergraduate Admissions By Academic Programme And Admission Policy: Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 -University Admissions, Table 02-04. http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed 2nd Oct. 2017.

Figure 8. Number of Students from Each District Admitted to Medical Programs from Merit List vs. Non-Merit List in Academic Year 2015/16



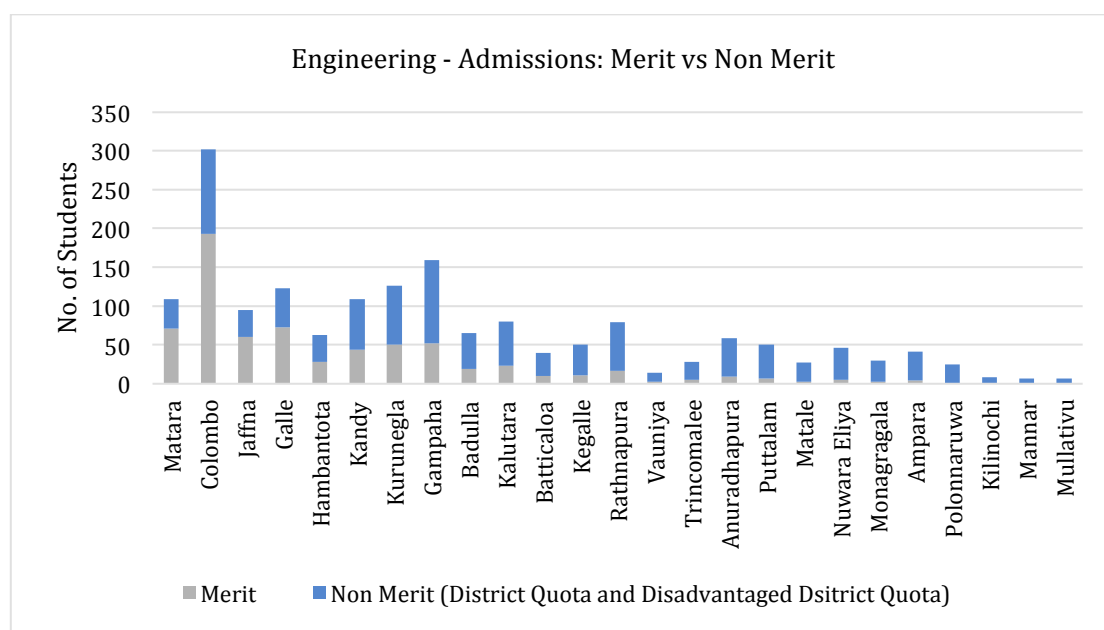
Source: University Grants Commission – Sri Lanka (refer Footnote 20).

(ii) Engineering

It can be observed that out of all the students admitted to universities for Engineering, 17.34% were from Colombo, 9.13% were from the Gampaha, 7.23% were from Kurunegala, 7.06% were from Galle and 6.26% were from Matara. The least-represented districts were Killinochchi, Mannar and Mullaitivu, which accounted for 0.46%, 0.40% and 0.40% of all Engineering admissions, respectively.

The district with the highest proportion of students admitted to Engineering through the National Merit List was Matara. 65.14% of the total Matara admissions to university came from the Merit List. This figure was 63.91% for Colombo, 63.16% for Jaffna, 59.35% for Galle and 44.44% for Hambantota. At the bottom of the rankings are Kilinochchi, Mannar and Mullaitivu, from where 0% of the students admitted were from the Merit List. The eight students admitted from Kilinochchi, seven students from Mannar and seven students from Mullaitivu were all admitted through the district or disadvantaged district quotas.²⁸ This information is summarised below (refer Figure 9).

Figure 9. Number of Students from Each District Admitted to Engineering Programs from Merit List vs. Non-Merit List in Academic Year 2015/16



Source: University Grants Commission – Sri Lanka (refer Footnote 21).

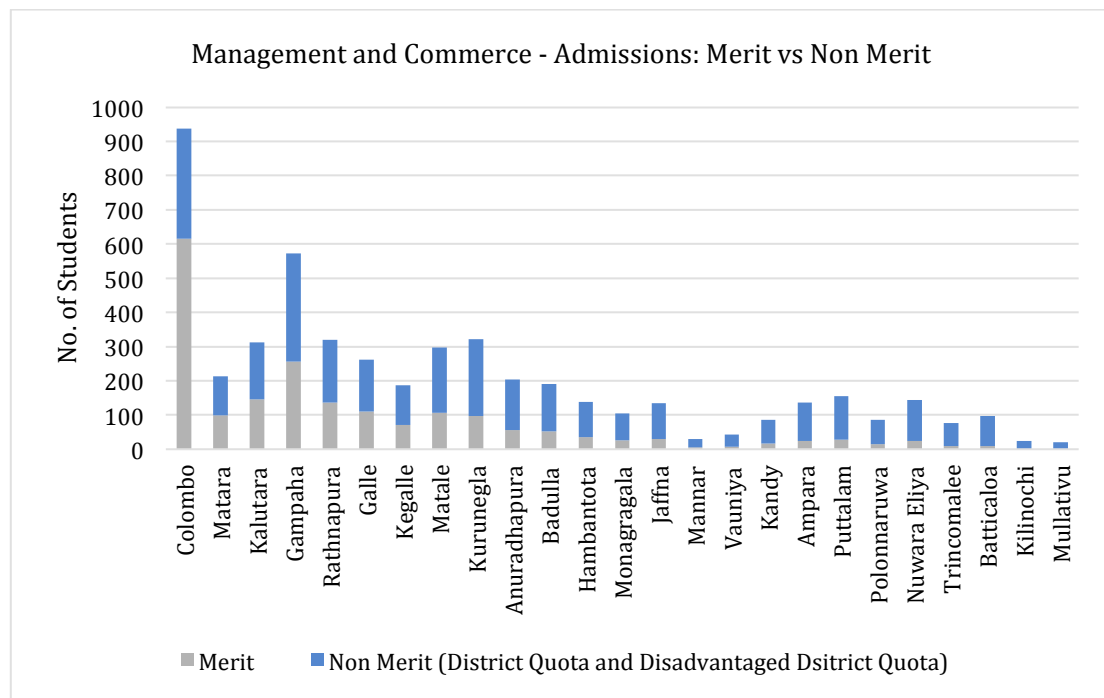
²⁸ University Grants Commission - Sri Lanka. "Undergraduate Admissions By Academic Programme And Admission Policy : Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 -University Admissions, Table 02-04. http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed 02 Oct. 2017.

(iii) Management and Commerce

Out of the total number of students admitted to university for Management and Commerce, 18.43% of all students came from the Colombo district. The Gampaha district had the next highest percentage, with 11.26%, followed by Kurunegala with 6.31%, Ratnapura with 6.27% and Kalutara with 6.13%. Mannar, Kilinochi and Mullativu account for the least number of admissions for Management and Commerce making up 0.57%, 0.49% and 0.39% of all admissions, respectively.

The district with the highest proportion of students admitted to Management and Commerce through the National Merit List was Colombo, where 65.67% of the total Colombo admissions for Management and Commerce came from the National Merit List. This figure was 46.48% for Matara, 46.47% for Kalutara, 44.68% for Gampaha and 42.95% for Ratnapura. At the bottom of the rankings were Batticaloa (where only 10.31% of Management and Commerce students were admitted through the Merit List) and Kilinochi and Mullaitivu, where none of the 25 and 20 admitted students, respectively, entered university through the Merit List.²⁹ This information is summarised below (refer figure 10).

Figure 10. Number of Students from Each District Admitted to Management and Commerce Programs from Merit List vs. Non-Merit List in Academic Year 2015/16



Source: University Grants Commission – Sri Lanka (refer Footnote 22).

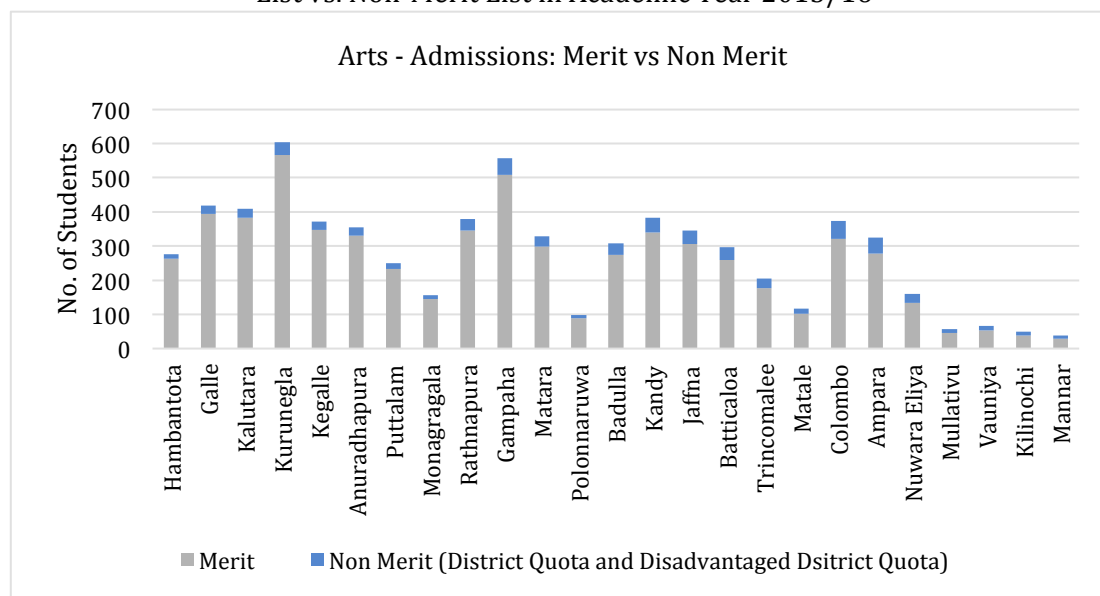
²⁹ University Grants Commission - Sri Lanka. "Undergraduate Admissions By Academic Programme And Admission Policy: Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 - University Admissions, Table 02-04. http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed 02 Oct. 2017.

(iv) Arts

Out of all the students admitted to university for Arts, 8.71% were from Kurunegala, 8.05% from Gampaha, 6.04% from Galle, 5.90% from Kalutara and 5.52% from Kandy. Mullativu, Kilinochi and Mannar account for the least number of admissions for Arts making up 0.81%, 0.72% and 0.56% of all admissions, respectively.

The district with the highest proportion of students admitted to the Arts through the National Merit List Hambantota, where 95.29% of the total Hambantota Arts admissions were through the National Merit List. Galle, Kalutara, Kurunegala and Kegalle followed closely with figures of 94.26%, 93.87%, 93.86% and 93.53%, respectively. At the bottom of the rankings were Vavuniya, Kilinochi and Mannar with figures of 80.6%, 76% and 71.79%, respectively.³⁰ This information is summarised below (refer Figure 11).

Figure 11. Number of Students from Each District Admitted to Arts Programs from Merit List vs. Non-Merit List in Academic Year 2015/16



Source: University Grants Commission – Sri Lanka (refer Footnote 23).

Overall observations are as follows. While for Medicine, Engineering and Management and Commerce, the majority of admitted students came from Colombo and Gampaha, while in the Arts, Colombo was not even in the top five most represented districts. Instead, students came from multiple districts, including Kurunegala, Gampaha, Galle, Kaluthara and Kegalle. Additionally, for Medicine, Engineering and Management and Commerce, a significant proportion of students were admitted to university through the district and disadvantaged district quotas. In contrast, this percentage was very low for Arts, where the vast majority of students were admitted through the National Merit list. (Refer Annex 7 for the data on districtwise admissions to different streams in academic year 2015/16.)

³⁰ University Grants Commission - Sri Lanka. "Undergraduate Admissions By Academic Programme And Admission Policy: Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 - University Admissions, Table 02-04, http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed 2 Oct. 2017.

3.3. Cost of State Tertiary Education in Sri Lanka

This section presents information on the Sri Lankan government's expenditure on higher education, a comparison of expenditure figures with those of other middle-income countries, and an approximation of the cost of higher education per student.

3.3.1. Expenditure on Higher Education in Sri Lanka

Expenditure on Higher Education in Sri Lanka as a % of Total Government Expenditure – Sri Lanka's expenditure on Higher education, when compared to the total Government Expenditure, has risen over the last ten years: from 1.65% in 2007 to 2.37% in 2016. Although there was a drop in this figure between 2007 and 2011, with the figure falling to 1.38% in 2011, it increased from 2011 onwards. In 2014, the figure peaked at 2.43% and has remained between 2.00% and 2.40% since then.

Expenditure on Higher Education as a % of GDP at Current Market Prices - Sri Lanka's expenditure on higher education as a % of GDP has increased slightly over the last ten years: from 0.39% in 2007 to 0.47% in 2016. There was a declining trend during the period 2007–2012 with the figure falling to 0.27% in 2012. However, since 2012, the figure has increased, reaching 0.47% in 2016.^{31 32} Data on the government's education expenditure as a proportion of total government expenditure and of GDP from 2007-2016 is summarised below (refer Table 3).

Table 3. Government Expenditure on Higher Education as a Proportion of Total Expenditure and GDP

Rs. Mn	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Higher Education ³³ **	13,916	14,440	19,179	19,324	19,807	23,740	31,463	43,596	50,170	55,330
Total Govt. Exp.*	841,604	996,126	1,201,927	1,280,205	1,433,182	1,556,499	1,669,396	1,795,865	2,290,394	2,333,883
GDP*	3,578,688	4,410,682	4,835,293	6,413,668	7,219,106	8,732,463	9,592,125	10,361,151	10,951,695	11,838,975
Higher Education as % of Total Exp.	1.65%	1.45%	1.60%	1.51%	1.38%	1.53%	1.88%	2.43%	2.19%	2.37%
Higher Education as % of GDP	0.39%	0.33%	0.40%	0.30%	0.27%	0.27%	0.33%	0.42%	0.46%	0.47%

Sources: *Central Bank Annual Report 2016 – Special Statistics Index; ** UGC Statistics 2016 & 2012, Chapter 5 – Finance (refer Footnotes 24 and 25).

³¹ Central Bank of Sri Lanka. "Special Statistical Index" *Annual Report 2016*, Table 5 & 6. *Publications*, http://www.cbsl.gov.lk/pics_n_docs/10_pub/docs/efr/annual_report/AR2016/English/content.htm. Accessed 02 Oct. 2017.

³² University Grants Commission - Sri Lanka. "Expenditure on Education." *Sri Lanka University Statistics 2016 & 2012*, Chapter 5 – Finance, Table 05-01. 2016 – http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%206.pdf 2012 – http://www.ugc.ac.lk/downloads/statistics/stat_2012/chapter5.pdf. Accessed 02 Oct. 2017.

³³ The "Total Expenditure on Higher Education" includes, university Education and Ministry of Higher Education.

3.3.2. Expenditure on Higher Education – Sri Lanka vs. Middle Income Countries

According to a World Bank classification, Sri Lanka's is categorised as a lower middle-income country.^{34 35}

Government Expenditure on Tertiary Education as a percentage of GDP - Middle Income Countries - Countries such as the Ukraine and Malaysia have the highest education expenditure of the middle-income countries. In comparison to Ukraine and Malaysia, where education expenditure as a percentage of GDP is 2.13% and 2.07%, respectively, the corresponding figure for Sri Lanka's is around one quarter of this, at 0.34% (World Bank). Sri Lanka features amongst the lowest in rankings even when comparing with the lower middle-income countries.

In comparison to other South Asian countries featured in the study, Sri Lanka lags behind India and the Maldives in terms of expenditure on tertiary education expenditure as a percentage of GDP, while leading compared to Bangladesh.³⁶

(Refer Annex 8 for data on Government Expenditure on Tertiary Education as a percentage of GDP - Middle Income Countries.)

Government Expenditure on Tertiary Education as a percentage of total government expenditure - Middle Income Countries - Sri Lanka's expenditure on tertiary education as a percentage of total government expenditure was 2.07% in 2013 (World Bank). In comparison to other middle-income countries featured in the report, such as Malaysia, Tunisia and Iran, Sri Lanka's expenditure is low. These countries, which are at the top of the ranking, spend a much larger percentage of their total government expenditure on tertiary education. Malaysia's expenditure was 7.3% (2013), Tunisia's was 5.76% (2013) and Iran's was 5.57% (2014). Although Sri Lanka's expenditure on tertiary education has increased over time – from 1.5% in 2009 to 2.07% in 2013 – it is still lagging behind the other middle-income countries.

In comparison to other South Asian countries in the study, Sri Lanka performs moderately well. Sri Lanka's expenditure on tertiary education as a percentage of total government expenditure lags behind India and Pakistan, but is higher than the Maldives and Bangladesh.³⁷

(Refer Annex 9 for more data on Government Expenditure on Tertiary Education as a Percentage of total Government Expenditure - Middle Income Countries).

³⁴ The World Bank. "World Bank Country and Lending Groups, Country Classifications". *Data*. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>. Accessed 02 Oct. 2017.

³⁵ It should be noted that the above figures are as per the World Bank and there are discrepancies for Sri Lanka in these figures when comparing the World Bank figures with that of the Central Bank of Sri Lanka.

³⁶ The World Bank. "Databank: Education Statistics – All Indicators." <http://databank.worldbank.org/data/reports.aspx?source=education-statistics-~-all-indicators>. Accessed 02 Oct. 2017.

³⁷ Ibid.

3.3.3. Approximation of Cost of Higher Education per Student in Sri Lanka

Below is a crude estimate of the cost of higher education per student per year. In this calculation, the total expenditure on higher education for that year is divided by the number of students in the state system. The expenditure figures given below have been calculated in real terms (constant rupees) with 2015 as the base year in order to exclude the effects of inflation and make comparisons between different time periods more accurate.

Over the last ten year, higher education expenditure per student has seen an increase of 67% - from Rs. 289,855 in 2007 to Rs. 484,337 in 2016. During this time, the expenditure per student fell to Rs. 261,402 in 2011 before rising again from 2012 onwards and finally reaching at Rs. 484,337 in 2016.

Over the ten-year period, the total government expenditure on higher education has risen by 129% in nominal terms, from Rs. 23,327 million in 2007 to Rs. 53,416 million in 2016. It can be noted here that the proportion of nominal capital expenditure (spent on construction, equipment, furniture, library books, periodicals & vehicles, and maintenance of capital assets) rose from 25.58% in 2007 to 35.85% in 2016.³⁸

Over the same period, the total number of students enrolled in higher education in the state sector i.e. in Universities, Institutes and the Open University, has risen by 37% - from 80,479 students in 2007 to 110,287 students in 2016.³⁹ This data is summarised below (refer Figure 12 below).

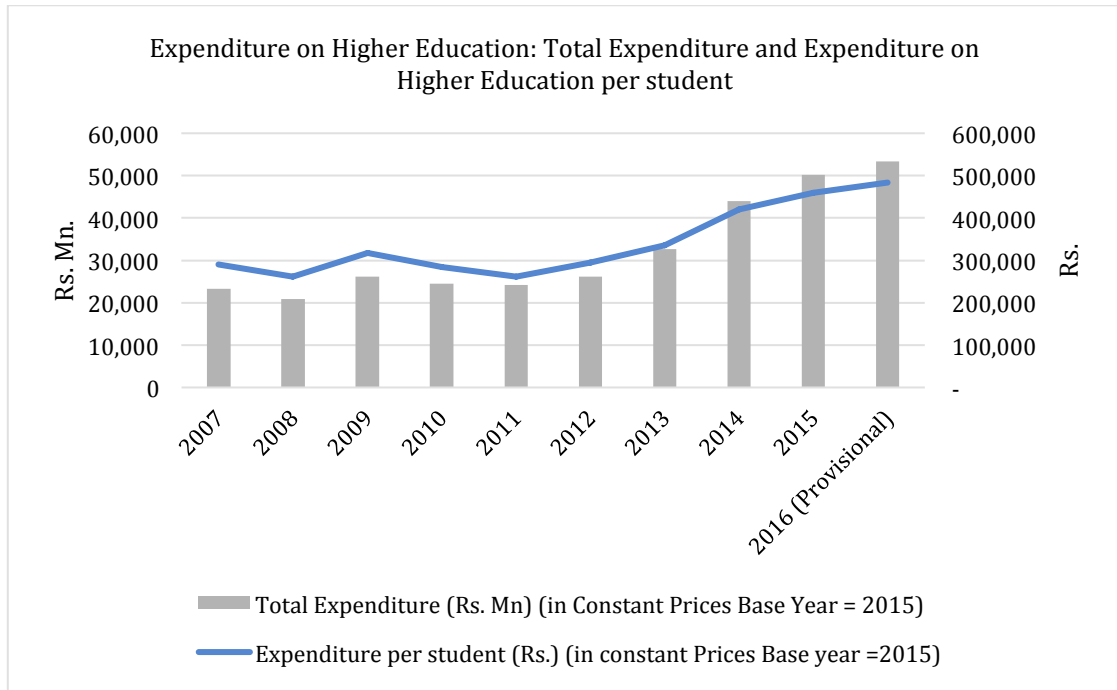
³⁸ University Grants Commission - Sri Lanka. "Expenditure on Education." *Sri Lanka University Statistics 2016 & 2012*, Chapter 5 -Finance, Table 05-01.

2016 - http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%206.pdf

2012 - http://www.ugc.ac.lk/downloads/statistics/stat_2012/chapter5.pdf. Accessed 2nd Oct. 2017.

³⁹ Central Bank of Sri Lanka. "University Education (a) 2007 - 2016." *Economic and Social Statistics 2017*, Table 13.16, http://www.cbsl.gov.lk/pics_n_docs/10_pub/docs/statistics/other/econ_&_ss_2017_e.pdf. Accessed on 2nd Oct. 2017.

Figure 12. Expenditure on Higher Education and Expenditure per Student from 2007-2015



Source: Central Bank of Sri Lanka; University Grants Commission – Sri Lanka (refer Footnotes 31 and 32).

Additional data on Sri Lanka's expenditure on higher education is presented below (refer Table 4).

Table 4. Sri Lanka's Expenditure on Higher Education

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 (Provisional)
Expenditure on Higher Education**										
Recurrent (Rs. Mn)	10,357	10,835	11,966	12,902	14,972	17,587	22,494	26,826	32,071	35,497
Capital (Rs. Mn)	3,559	3,605	7,213	6,422	4,835	6,153	8,969	16,770	18,099	19,833
Total (Rs. Mn)	13,916	14,440	19,179	19,324	19,807	23,740	31,463	43,596	50,170	55,330
Recurrent (Rs. Mn) (in Constant Prices Base Year = 2015)	17,361	15,611	16,286	16,363	18,292	19,387	23,336	27,046	32,071	34,269
Capital (Rs. Mn) (in Constant Prices Base Year = 2015)	5,966	5,194	9,817	8,145	5,907	6,783	9,305	16,908	18,099	19,147
Total Expenditure (Rs. Mn) (in Constant Prices Base Year = 2015)	23,327	20,806	26,102	24,507	24,199	26,169	32,640	43,954	50,170	53,416
No. of Students*										
University	68,579	66,891	68,768	70,477	74,440	70,222	77,126	80,222	83,778	84,451
Institutes	2,678	2,600	2,703	2,921	3,217	3,073	3,254	3,317	3,307	3,290
Open University	9,222	10,153	10,904	12,818	14,915	15,418	16,739	20,916	22,097	22,546
Total	80,479	79,644	82,375	86,216	92,572	88,713	97,119	104,455	109,182	110,287
Expenditure on Higher Education per Student										
Expenditure per student (Rs.)	172,915	181,307	232,825	224,135	213,963	267,605	323,963	417,366	459,508	501,691
Expenditure per student (Rs.) (in constant Prices Base year =2015)	289,855	261,233	316,873	284,252	261,402	294,990	336,084	420,793	459,508	484,337

Source: *Central Bank Annual Report 2016 – Special Statistics Index; ** UGC Statistics 2016 & 2012, Chapter 5 – Finance (refer Footnotes 24 and 25)

There have been no comprehensive studies conducted to estimate the total cost to the state of producing graduates in different fields. However, Health Economist Dr. Dileep de Silva at the Family Health Bureau within the Ministry of Health has estimated these costs in a research report that is due to be published at the beginning of 2018.

4. Status of private and foreign education in Sri Lanka

This section presents a brief overview of the course options available to students at private and foreign degree awarding institutes.

4.1. Course Options at Private Tertiary Education Institutes in Sri Lanka

Institutions offering local degrees are recognised as private degree-awarding institutions under Section 25A of the Universities Act. The undergraduate programs offered by these institutes are as follows:

- Information and Communication Technology
 - Information Technology
 - Computer Science
- Business
 - Business Administration
 - Business Communication
- Engineering
 - Electronic
 - Mechanical
 - Civil
 - Materials Engineering
 - Marine
 - Software
 - Maritime
 - Mechatronics
- Management
 - Accounting and Finance
 - Public Management
 - Financial Management
 - Business Management (Human Resource; Logistics; Industrial; Project)
 - Information Management
 - Management Information Systems
 - Marketing
 - Agro Industry Management
- Medicine
 - MBBS*
 - Medical Science
 - Nursing
 - Biomedical Science
 - Psychology
 - Counseling
- Fisheries and Marine Science
 - Boat building and Naval Architecture
- Surveying Science
- Maritime Science
- Regional Science and Planning
- Logistics and Transportations

- Buddhist Leadership
- Banking and Finance
- Insurance and Risk Management
- Education
- Social Works Degree
- Multimedia
- General Degree
- Religious Studies

*The South Asian Institution of Technology and Medicine (SAITM) was awarded the status of a degree awarding institute under Section 25A of the Universities Act No. 16 of 1978, as per Gazette Extraordinary No. 1721/19 of 30/08/2011. As such, it is authorised to award the degree of MBBS. It is the only non-state institute in Sri Lanka that has been authorised to award MBBS degrees. However, the provision of this degree by this institute is currently under public debate.

4.2. Foreign Degree Options Available in Sri Lanka

Foreign degree-awarding institutes can exist in Sri Lanka outside the Universities Act. These institutions function under the Board of Investment as business establishments. Currently there is no comprehensive list of these institutions and the degrees that they offer. However, a study conducted in 2007 for the World Bank listed a total of 19 foreign degree awarding institutions in Sri Lanka. These institutions were identified from: 1) press advertisements in the local daily newspapers over a period of fifteen months; 2) Education Guide (2006); and 3) publications such as EDEX 07 and Higher Education in Sri Lanka.⁴⁰ The list compiled in that study is presented below (refer Figure 13). The list demonstrates that the foreign degree courses available are predominantly B.Sc degrees and are concentrated in Information Technology, Engineering, and Business and Accounting.

⁴⁰ Stephen, Francis M., "Relevance of Foreign Degrees, offered locally and their contribution to the Socio Economic Development of Sri Lanka." *World Bank and National Education Commission Sri Lanka*, October 2007, http://nec.gov.lk/wp-content/uploads/2014/04/Relevance_of_foreign_degrees.pdf. Accessed 28 Sep. 2017.

Figure 13. Foreign Degree Awarding Institutes/Colleges And Courses Offered

Institute/college	Course offered
1. Asia Pacific Institute of Information Technology (A.P.I.I.T)	B.Sc Computing B.Sc Computing with specialization in Multimedia B.Sc Computing with specialization in Internet technology B.Sc Computing with specialization in Software engineering B.Sc E Commerce BA Business Administration B.Sc Business Computing B.Sc Business Information Technology
2. Imperial Institute of Higher Education	B.Sc Computing B.Sc Business management
3. British College of Business studies	B.Sc Information Technology B.Sc International studies B.Sc Accounting & Finance
4. Australian college of Business & Technology (ACBT)	Bachelor's Degree in Business Bachelor's Degree in Computer science & Software engineering
5. IDM Computer Studies (PVT) Ltd	B.Sc. Computing & Information technology
6. Institute of Technological studies (ITS)	Accounting (B.S. Degree) Finance (B.S. Degree) Mechanical engineering (B.S Degree) Electrical engineering (B.S. Degree) Electronic engineering (B.S. Degree)
7. International College of Business & Technology Ltd (ICBT)	B.Sc in Applied accounting B.Sc. Teaching technology BBA
8. Royal Institute	B.Sc in Accounting & Finance B.Sc in Accounting with Law B.Sc Banking & Finance B.Sc Economics & Finance B.Sc Law with accounting
9. Singapore Informatics- City Campus	B.Sc. Business administration B.A. Hospitality management B.A. Tourism & Hospitality management
10. Aims College of Business & Technology (ACBIT)	B.Sc. Information technology BBA. Business administration
11. ICFAI Education Lanka	B.Sc. Information technology
12. Informatics Institute of technology	B.Sc. Computing B.Sc. Internet computing B.Sc. Information systems B.Sc. Information systems with Business management B.Sc. Software engineering
13. Open Arc school of Business & Technology	B.Sc. Information Technology
14. Sri Lanka Institute of Information Technology (SLIIT)	B.Sc. Information technology B.Sc. Business Information technology B.Sc. Computer systems & networking
15. Brandix College of clothing Technology	B.Sc. Textile technology
16. British College of Applied Studies	B.A. Hospitality management
17. American College of Higher Education	B.Sc. HR management
18. American National College	B.Sc. Business administration B.Sc. Engineering B.Sc. Information technology Bachelor's Degree in Pre-Med & Health Sciences Bachelor's Degree in arts & Psychology
19. Australian National College (Monash)	B.Sc. Business administration B.Sc. Engineering

Source: World Bank and National Education Commission Sri Lanka (refer Footnote 33).

5. Standards and Quality of Tertiary Education in Sri Lanka

This section describes the systems in place to assess and maintain standards in the different types of tertiary education institution that exist in Sri Lanka. These systems are those of quality assurance and accreditation. The section also describes: the role of professional bodies in assessing standards of programmes in their respective fields and a summary of the quality assessment and maintenance processes found in other countries.

5.1. Quality Assurance and Accreditation in Tertiary Education Sector

The distinction between accreditation and quality assurances was emphasised in three interviews.⁴¹ Accreditation is defined as the examination of a facility's or institution's services and operations by a third-party accrediting agency to determine if applicable standards are met.⁴² If standards are met, the faculty/institution receives accredited status from the agency. Accreditation decisions are time-limited. The duration of validity of the accreditation licence is established by the accrediting body, which generally holds the right to suspend and/or to renew the licence, upon the satisfactory resolution of any identified issues.⁴³

Regarding accreditation of Sri Lankan higher education bodies, the UGC website outlines the purposes, characteristics and criteria for accreditation and indicates that multiple workshops have been held to discuss the preparation of an accreditation manual. However, there is no evidence that accreditation has taken place. This was confirmed in all three interviews mentioned above.

Conversely, quality assurance is a means by which universities can guarantee that the standard of its awards and the quality of its education are maintained. The Quality Assurance and Accreditation unit (QAA) was formed within the UGC in 2004, and it was under the supervision of this unit that the first cycle of Institutional and Subject Reviews were conducted using the Quality Assurance Handbook for Sri Lankan Universities.⁴⁴ The QAA unit was renamed the QAA Council in 2005 and continued to function under the supervision of the UGC.

In 2008, the National Policy Framework for Higher Education was prepared after wide stakeholder consultation by the National Education Commission Sri Lanka (NEC) during

⁴¹ The interviews in question are with: Dr. Nilanthi de Silva, Dean of the Kelaniya Medical Faculty; Prof. Malik Ranasinghe, Senior Professor in Civil Engineering at the University of Moratuwa and University Grants Commission Committee Member; and Prof. Priyan Dias, Senior Professor in Civil Engineering at the University of Moratuwa. Refer Annex 2 for more details.

⁴² "Quality Assurance and Accreditation Council." <http://www.eugc.ac.lk/>, <http://www.eugc.ac.lk/qaa/index.php/accreditation/>. Accessed 13 Aug. 2017.

⁴³ Perera, K. and Hettiarachchi, S. "Study On Quality Assurance And Accreditation In General Education In Sri Lanka." *National Education Commission: Research Series 2014 – No. 4*. Funded by Transforming School Education Project (World Bank). <http://nec.gov.lk/wp-content/uploads/2016/04/4-Final-.pdf>. Accessed on 13 Sep. 2017.

⁴⁴ University Grants Commission. *Manual for Review of Undergraduate Study Programmes of Sri Lankan Universities and Higher Education Institutions*. Higher Education for the Twenty First Century (HETC) Project (World Bank), December 2015. <https://www.pdn.ac.lk/centers/iqau/upload/PR-manual.pdf>. Accessed on 2 July 2017.

which stakeholders recommended the creation of an independent National Quality Assurance and Accreditation Board (NQAAB) for Higher Education. However, this has still not been fulfilled.⁴⁵

Quality assurance systems in Sri Lanka differ by the type of institution. This section discusses the process of quality assurance within the tertiary sector in Sri Lanka.

(a) State Universities and Higher Educational Institutes affiliated to State Universities (Under Section 24A and B)

The University Grants Commission (UGC) is responsible for maintenance of academic standards in Higher Educational Institutions (Section 3(3) of Universities Act No. 16 of 1978). The UGC has the power to make Ordinances for the establishment and maintenance of standards of instruction in higher educational institutions for grant of degrees, diplomas and other academic distinctions (Section 18(2)(d)).

Institutional and program reviews of all State Universities and Higher Educational Institutes in Sri Lanka are conducted by the Quality Assurance and Accreditation Council (QAAC) set up under the UGC. The UGC is planning to conduct institution and program reviews for all state universities and Higher Educational Institutes commencing on 01st January 2017 to 2021 as per Circular UGC/QAAC/IR/01, dated December 20, 2016.⁴⁶

The programme for review covers the following universities:

- University of Colombo
- University of Peradeniya
- University of Kelaniya
- University of Jayawardenapura
- University of Jaffna
- University of Moratuwa
- University of Visual and Performing Arts
- South Eastern University of Sri Lanka
- Sabaragamuwa University of Sri Lanka
- University of Ruhuna
- Eastern University of Sri Lanka
- Uva Wellassa University of Sri Lanka
- Rajarata University of Sri Lanka
- Wayamba University of Sri Lanka
- Open University of Sri Lanka

(Note – Universities that are under the purview of other Ministries are absent from this list, suggesting that such universities are not subject to quality assurance checks by the UGC.) Refer Annex 10 for a detailed explanation of the Institutional and Programme Reviews.

⁴⁵ University Grants Commission. *Manual for Institutional Review of Sri Lankan Universities and Higher Education Institutions*. Higher Education for the Twenty First Century (HETC) Project (World Bank), April 2015. http://www.ugc.ac.lk/attachments/1519_IR%20Manual%20-%20Printed%20Version%207th%20May.pdf. Accessed 2 July 2017.

⁴⁶ URL: <http://www.eugc.ac.lk/qaa/wp-content/uploads/2017/03/1.-Guidelines-for-Conducting-IRs-and-PRs.pdf>.

(b) Government non-UGC institutes

These institutes do not fall under the Universities Act, and therefore are not under the purview of the UGC. Instead, they are established by their separate Acts and have their own Quality Assurance processes.

(c) Private Institutions with Degree-Awarding Status - Section 25A of the 1978 Act

Section 25 allows for the Commission, with the concurrence of the Minister and subject to conditions prescribed by Ordinance, to recognise institutions for the purpose of providing courses of study approved for examinations of a Higher Educational Institution.

Section 25A of the 1978 Act (as amended by No. 7 of 1985) provides that the Minister, subject to Section 70c, can recognise any Institution as a Degree Awarding Institute for the purpose of developing higher education in such courses of study in such branches of learning as are specified in such Order and subject to such conditions as may be specified therein. (Conditions are provided for in Gazette Notification No. 1824/21 of 22nd August 2013, described below.)

The provisions for standards and quality assurance of these institutions under Section 25A are subject to the 'Specified Authority' – which is established under Section 70B of the 1978 Act. Section 70D(i) provides that the specified authority (i.e. any person appointed by Gazette by Minister to be a specified authority as per Section 70B), subject to the direction and control of Minister is to determine facilities to be provided and academic standards to be maintained at such Degree Awarding Institutes.

Further regulations relating to the powers of the 'Specified Authority' are provided through Gazette Notification No. 1824/21 of 22nd August 2013, i.e. the Specified Authority (Powers relating to Recognition of Institutes as Degree Awarding Institutes) Rules No. 1 of 2013. Part II of the Regulations provides for process in place for quality assurance.

Frequency of assessment of these institutions – are subject to the direction of the Minister: Rule 32 of the Regulation provides that 'subject to the direction and control of the Minister, the Specified Authority shall, from time to time, examine the performance of any such Degree Awarding Institute through a Quality Assurance Monitoring System established for the purpose, to ensure that standards set out in these rules are maintained. Rule 34 provides that the specified authority, subject to the direction and control of the Minister, inform any Degree Awarding Institute based on such quality assurance monitoring report, of the steps to be taken to maintain in proper standards of Degree Awarding status.

(d) Foreign-Degree Awarding Institutes

Foreign degree awarding institutes do not fall under the Universities Act, and therefore are not under the purview of the Ministry of Higher Education. Accreditation and quality assurance is left to the discretion of the institute.

(e) Vocational Training Institutes

Vocational training institutes are regulated by the Tertiary and Dational Education Act No. 20 of 1990. Under Section 14(1), no person shall establish, manage, run or control any institute for provision of tertiary and/or vocational education, without being registered under this Act.

The maintenance of academic and training standards in institutes, agencies and all other establishments providing tertiary education and vocational education is under the responsibility of the Tertiary and Vocational Education Commission (Section 3(1)(c) TVET Act). This body has similar functions to the UGC for the vocational education sector.

The Commission has power to establish and maintain systems for quality assurance in vocational education and training including standards in respect of occupational skills, training, programmes, testing and quality management systems (Section 4(k) of the TVET Act).

Overall Summary

The quality assurance and accreditation systems of each type of tertiary education establishment are summarised below (refer table 5). The table makes clear that there is no overarching structure of quality assurance or accreditation for the different types of institutes in Sri Lanka's tertiary education sector.

Table 5. Summary of Accreditation and Quality Assurances Systems for Different Types of Tertiary Education Institutions

		State Universities	Higher Educational Institutes under Section 24	Govt. Non-UGC	Degree Awarding Institutes Under Section 25A	Vocational Training Institutes
Accred-itation	Mandatory?	Yes (for initial recognition)	Yes (undergraduate institutes)	No – at discretion of institute/ Ministry	Yes (only for initial approval)	Yes
	Responsible authority	UGC	UGC	Institute/ Ministry	Ministry of Higher Education	TVEC
Quality Assura-nce	Mandatory?	Yes	Yes (undergraduate institutes)	No – at discretion of Institute/ Ministry	No - at discretion of the Ministry of Higher Education	Yes
	Responsible authority	UGC	UGC	Institute/ Ministry	Ministry of Higher Education	TVEC

Sources: Dr. Nilanthi de Silva; Dr. Malik Ranasinghe (refer Annex 2).

5.2. Reforms to the Quality Assurance and Accreditation Structure in Sri Lanka

The different processes demonstrate that lack of a standard system for quality assurance across all types of higher education institution. The National Policy Framework on Higher Education in June 2008 states that “assurance of the quality of programmes offered by the state higher educational institutions as well as non-state sector higher education institutions is vital to maintain equally high standards of the programmes offered by them. In order to achieve these objectives it is recommended to establish a central authority for quality assurance and accreditation”.⁴⁷ This policy recommended the established of the National Quality Assurance and Accreditation Board (NQAAB) as an independent agency to fulfill this task. The UGC manual indicates that given the number of non-state higher educational institutions, with or without cross border affiliation coming into place, it is necessary to establish the NQAAB for accreditation of these institutions.⁴⁸

5.3. Quality Assurance and Accreditation for Disciplines with Professional Bodies

Certain disciplines such as medicine, engineering and architecture have professional bodies, which may also impose standards and assess institutions programmes. All institutions have to be established under the Universities Act No. 16 of 1978 or the Tertiary and Vocational Education Act No. 20 of 1990 – and therefore, are subject to the conditions and requirements established in the legislation.

Relevant professional bodies may have specific guidelines as well for recognition and maintenance of standards. The specifications for medicine, engineering and architecture are given below.

However, the Specified Authority referred to in the Universities Act No. 16 of 1978 is also relevant for the purpose of assessing standards and quality, as non-state degree awarding institutes providing such qualifications would be subject to these regulations as well. According to Gazette No. 1824/21 of 22nd August 2013, there is a provision to obtain compliance certification from specified professional bodies and submit such certification to the Specified Authority (Rule 31). Rule 31 provides that ‘All Non-State Institutes which have been recognised as Degree Awarding Institutes in pursuance to the Report made to the Minister by the Specified Authority under Section 70c of the Act and which offer study programmes leading to Degrees in Medicine, Engineering, Architecture and other similar professional Degrees shall, obtain compliance certification from the relevant Specified Professional body and shall submit such certification to the Specified Authority.’

⁴⁷ University Grants Commission. *Manual for Institutional Review of Sri Lankan Universities and Higher Education Institutions*. Higher Education for the Twenty First Century (HETC) Project (World Bank), April 2015, p16. http://www.ugc.ac.lk/attachments/1519_IR%20Manual%20-%20Printed%20Version%207th%20May.pdf. Accessed 10 July 2017.

⁴⁸ Ibid.

(a) Medicine

Recognition of Universities:

The Medical Ordinance No. 26 of 1927 refers to the role of the Sri Lanka Medical Council (SLMC) in assessing compliance of 'recognised universities' with prescribed standards. 'Recognised university or institution' is defined as any university or institution, which grants or confers a medical qualification.

Maintenance of standards:

The SLMC, established under Section 12 of the Medical Ordinance, is authorised to regulate standards for medical education.

- Section 19(e) of the Ordinance provides that regulations may be made by the Sri Lanka Medical Council for the maintenance of minimum standards of medical education including standards relating to courses of study, examinations, staff, equipment, accommodation, training and other facilities at universities and other institutions which grant or confer any qualification which entitles a person to obtain registration under this Ordinance. (Provision added under Section 10 of Amendment Act, No. 30 of 1987.)
- Section 19(f) provides that the SLMC is responsible for the maintenance of minimum standards of post-graduate medical education at universities and other institutions. (Provision added by Section 10 of Amendment Act No. 30 of 1987.)

The SLMC is authorised to assess recognised universities or institutions and ascertain whether the courses of study; degree of proficiency required at examinations; and staff, equipment, accommodation and facilities provided by university or institution, conform to prescribed standards.

If the SLMC, in its capacity as a regulatory body, is not satisfied with the ability of the recognised university or institution to meet the prescribed standards, it can *recommend* to the Minister to withdraw recognition of qualifications accorded to the institution (Section 19C of No. 26 of 1927). However, the ultimate decision is made by the Minister – where after reviewing the report and comments from the institution, the Minister decides that it does not conform to prescribed standards, he shall declare by regulation that provision of this Ordinance which enables holder of qualification to be registered under this Ordinance shall cease to have effect in relation to any institution affiliated to such university (Section 19C(3) of No. 26 of 1927).

Sri Lankan Universities currently recognised by the Sri Lanka Medical Council for registration to practice medicine and surgery in Sri Lanka under the Medical Ordinance are ⁴⁹:

- University of Colombo;
- University of Peradeniya
- University of Jaffna
- University of Ruhuna
- University of Kelaniya

⁴⁹ Sri Lanka Medical Council, 'Sri Lankan Universities', <http://www.srilankamedicalcouncil.org/srilankanuniversities.pdf>. Accessed on 19 Sep 2017.

- University of Jayawardenepura
- Rajarata University of Sri Lanka
- Eastern University of Sri Lanka
- The General Sir John Kotelawala Defence University (only university not under the purview of the University Grants Commission).

Assessment of state medical faculties in practice:

State medical faculties are assessed under the Institutional or Programme Reviews under the UGC's Quality Assurance and Accreditation Council. Medical faculties largely choose the Programme Review. Unlike in other undergraduate courses, where students have some freedom to choose the subjects within their degree program, medical students have to take a fixed, pre-determined set of classes in order to earn their MBBS degrees.

Prof. Nilanthi de Silva, Dean of the Medical Faculty at Kelaniya University, observed that the Programme Review alone is inadequate in assessing the standards of local medical schools because the criteria is too general i.e. it is intended to be used to assess all undergraduate programs in state universities. However, there are other criteria that are very specific to the medical profession and essential in producing safe doctors. These criteria include adequate clinical training facilities, hospitals, the specialisations available in the hospital, the patient turnover, the need exposure to different kinds of cases etc. As these criteria are not covered in the IR or PR conducted by the UGC, they must be regulated by the professional body for medicine, the SLMC.

Assessment of foreign medical schools:

Recognition: One of the SLMC's stated services is "Recognition of Foreign Medical and Dental Schools and maintaining lists of such schools".⁵⁰ Former SLMC President Lalitha Mendis explained in an article that what it means for the SLMC to 'recognise' a medical school abroad is that it would allow a Sri Lankan citizens who obtain a medical degree from that school to sit Sri Lanka's licensing exam: the Examination for Registration to Practice Medicine (ERPM).⁵¹

The process of recognising of foreign medical schools is not stated on the SLMC website. An interview with the Dean of the Kelaniya Medical Faculty revealed that this information is not well known even by administrators in medical education in Sri Lanka.

However, the SLMC website currently displays 51 foreign medical schools on its page of recognised foreign medical schools.⁵² Many of these schools are in China and India. There are also schools in Nepal, Bangladesh, Pakistan, and Georgia. However, recognition has been suspended for three of these schools and "the application for

⁵⁰ Sri Lanka Medical Council, "Annual Report 2009", p11, <http://www.srilankamedicalcouncil.org/download/download/10/283362c6e5688b9c825aa2948b4024fe.pdf>. Accessed on 13 July 2017.

⁵¹ Mendis, Lalitha. "SLMC on special examination for medical graduates abroad Requesting high achievement at GCE (A/L), a sound approach to select medical students." *The Island*, 31st Aug. 2010, http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=5623. Accessed 2 July 2017.

⁵² Sri Lanka Medical Council, "Foreign Universities." <http://www.srilankamedicalcouncil.org/foreignuniversity.php>. Accessed on July 8 2017.

renewal of recognition is still under evaluation” for 34 of them. Thus only 14 currently have recognition status. Of these 14, the 5-year recognition period for one of the schools has already lapsed (28th July) and another will lapse on 30th November. Thus, only 13 out of 51 listed schools currently have valid recognition statuses.

The numbers of students attending foreign medical schools abroad is not publicly available and is difficult to obtain from the SLMC for research-related purposes.

Standards assessment: After a failed attempt to pass prescribed minimum standards for medical education⁵³ the SLMC compiled the draft standards into two sets of guidelines: 1) *Guidelines and Specifications on Standards and Criteria for Accreditation of Medical Schools in Sri Lanka and Courses of Study Provided by Them* and 2) *Guidelines on Standards, Criteria and Procedure for the Recognition of Degrees Awarded by Foreign Medical Schools*. The second set of guidelines sets out the procedures, standards and criteria required of a foreign medical school to gain recognition from the SLMC. The standards and criteria cover:

- Accreditation of the foreign medical school
- Policy on course provision (guidelines on twinning programmes etc.)
- Entry criteria
- Staff (qualifications, staff-student ratios and staff development)
- Resources for the educational programme (financial resources, physical facilities, medical education expertise, student housing and utilities)
- The academic programme (objectives, governance and accountability, administration, curriculum, skills outcomes, content knowledge and student assessment).

Foreign medical schools are required to apply for renewal of their recognition status every five years. Neither the details about the application process nor the application forms are publicly available.

How standards for foreign medical schools differ from standards for local medical schools?

The material in the *Guidelines* for foreign medical schools is very similar to that in the *Guidelines* for Sri Lankan medical schools. However, the latter is more comprehensive. It includes some material that the foreign guidelines do not. For example, the local guidelines include more detailed lists of skills and clinical procedures that graduates must be competent in as well and the degree of competence required.

Recently, the government finalised a set of minimum standards for medical education, which it intends to present to Parliament within the next month.⁵⁴ The bill is entitled the Minimum Standards for Medical Education and Training and the Independent Quality Assurance and Accreditation Authority (IQAAA) draft bill, by the National Policies and

⁵³ Sri Lanka Medical Council, “Annual Report 2009”, p68, 72, <http://www.srilankamedicalcouncil.org/download/download/10/283362c6e5688b9c825aa2948b4024fe.pdf>. Accessed on 25 July 2017.

⁵⁴ Wickremasekera, Damith. “Govt. finalises minimum standards for medical education.” *The Sunday Times*, 24th Sep. 2017, <http://www.sundaytimes.lk/170924/news/govt-finalises-minimum-standards-for-medical-education-260736.html>. Accessed 28th Sep. 2017.

Economic Affairs Ministry. This legislation would require every medical school (local and foreign) that provides medical education and training and seeks to apply for SLMC recognition of its graduates to maintain standards specified by this document. A team of at least three persons put together by the SLMC will evaluate the university and produce a report. Following this, the SLMC can conduct site visits. Certification, which will be valid for a period of five year, will then be provided to universities upon the their satisfying the minimum standards.

(b) Engineering

The Institution of Engineers Act No. 17 of 1968 establishes the Institution of Engineers as the apex professional engineering body in Sri Lanka. The Institution is authorised to promote the study of engineering (Section 3(c)); conduct examinations qualifying for membership of the Institution to test competence of persons engaged in engineering and grant certificates of competence (Section 3(d)); and assess eligibility of candidates for admission to various grades of membership (Section 3(e)).

The Institution of Engineering recognises four-year degrees or equivalent qualifications awarded by higher educational institutions, which have already been approved by the Institution of Engineering.

Recognised engineering degrees are awarded by:

- University of Moratuwa;
- University of Peradeniya;
- University of Ruhuna;
- Open University of Sri Lanka;
- Foreign universities accredited under the Washington Accord; and
- Engineering degrees awarded by Higher Education Institutions in India prior to June 13, 2014 and accredited by the National Board of Accreditation India (recognised up to March 31, 2017).

All other higher educational institutions in Sri Lanka offering engineering programmes on their own or in affiliation with overseas universities are required to apply to the IESL in the prescribed format to assess whether their degree programmes can receive recognition from IESL.⁵⁵ Until such recognition is obtained, these degree-awarding institutions cannot claim that their degree programmes have received any recognition from IESL.

The IESL has a process in place for assessing an institute to grant recognition. If the institution passes this assessment, the IESL grants full recognition to the institution for a period of five years. The institute will have to be assessed for compliance with prescribed standards to renew recognition every five years.

⁵⁵ Institution of Engineers, Sri Lanka, 'Manual for Recognition of Four Year Engineering Degrees Conducted in Sri Lanka', June 2014, <http://www.iesl.lk/resources/Recog/Recognition%20Manual%20for%204%20yer%20degrees.pdf>. Accessed 25th Sep. 2017.

(c) Architecture

The apex professional body for architecture is the Institute of Architects, established by the Sri Lanka Institute of Architects Law No.1 of 1976. The Institute is responsible for organizing, supervising and controlling admission and professional education and training of persons desiring to qualify as architects; prescribing or approving courses of study for qualifying examinations for membership of institute; and conducting or providing for conduct of such courses and examinations.

To qualify as an architect in Sri Lanka, the student must complete a three-stage programme:

- Part I – Academic course: full time course of minimum 3 year duration or part time course of minimum 4 year duration, with other specifications – in an institution accredited by the SLIA;
- Part II – Academic Course: full time course of minimum 2 year duration or part time course of minimum 3 year duration, with other specifications - in an institution accredited by the SLIA;
- Part III – Practical Training.

Architecture courses need to be accredited by the Sri Lanka Institute of Architects. Validated courses of architecture in Sri Lanka are:

- B.(Arch) Program of University of Moratuwa (for SLIA Part 1 and Part II); and
- Diploma in Architectural Studies (for SLIA Part I) and Higher Diploma in Architecture (for SLIA Part II) Programs of the City School of Architecture, Colombo.

Validation of the courses is provided for a period of four to five years.

5.4. Accreditation and Quality Assurance in other Jurisdictions

This section draws on educational structures in other jurisdictions and provides an insight into the measures for assuring standards and quality of institutions. In these examples, the focus is on moving towards a common framework for registration and maintaining quality and standards of all higher educational institutions.

(a) India

Structure of Tertiary Education in India - In India, all institutions conferring degrees need to be established by a University or incorporated by or under a Central Act, a Provincial Act or a State Act or an institution deemed to be a University or an institution specially empowered by an Act of Parliament to confer or grant degrees.⁵⁶ The term 'University' is legally restricted to institutions established in this manner.⁵⁷

⁵⁶ Section 22(1) of the University Grants Commission Act 1965 of India.

⁵⁷ Section 23 of the University Grants Commission Act 1965 of India.

There are 677 universities in the country including 318 state universities, 129 deemed universities, 45 central universities, 185 state private universities and 51 institutions of national importance, such as Indian Institute of Technology, National Institute of Technology, Indian Institutes of Science Education and Research, etc.⁵⁸ There are private and accredited universities, institutions created by an act of Parliament, independent institutes and over 37,204 colleges.⁵⁹

Institutional Authority over Tertiary Education – All higher education institutes in India are regulated by the University Grants Commission (UGC), except for technical institutes, which are governed by the All India Council of Technical Education (AICTE) and other councils established under applicable statutes for the regulation of education in specific fields. Councils include the Council of Architecture, Medical Council of India, Indian Nursing Council and Distance Education Council.⁶⁰

UGC and AICTE are the nodal bodies regulating the entry and operation of foreign universities and institutions in India.⁶¹ According to the UGC website, there are 284 private universities competent to award degrees as specified under Section 22 of the UGC Act with the approval of the statutory councils. Where approval of the statutory council is not a pre-requisite to start a programme, the Universities are required to maintain the minimum standards regarding academic and physical infrastructure as laid out by the concerned statutory council.⁶² Distance Courses can only be initiated by a private university after prior approval of the UGC.⁶³

Thus, all higher educational institutions, regardless of whether it is state or private, will be under the purview of the UGC and will have to submit to mandatory accreditation by the accreditation body of the UGC.

Foreign Institutions in India – Efforts have been made to recognise foreign educational institutions operating in India. The National Knowledge Commission (NKC) estimated that every year about 160,000 students from India study abroad, spending about US\$4 billion. According to the Ministry of Overseas Indian Affairs, as of July 15th 2009, about 264,324 Indian students were studying abroad.⁶⁴

⁵⁸ India – Education Services, *Export.Gov*, 27th July 2017, <https://www.export.gov/article?id=India-Education-Services>. Accessed on 29th Sep. 2017.

⁵⁹ India – Education Services, *Export.Gov*, 27th July 2017, <https://www.export.gov/article?id=India-Education-Services>. Accessed on 27th Sep. 2017.

⁶⁰ India – Education Services, *Export.Gov*, 27th July 2017, <https://www.export.gov/article?id=India-Education-Services>. Accessed on 27th Sep. 2017.

⁶¹ India – Education Services, *Export.Gov*, 27th July 2017, <https://www.export.gov/article?id=India-Education-Services>. Accessed on 27th Sep. 2017.

⁶² University Grants Commission, 'Public Notice on Private Universities', University Grants Commission of India, <https://www.ugc.ac.in/privatuniversity.aspx>. Accessed 10th Sep. 2017.

⁶³ University Grants Commission, 'Public Notice on Private Universities', University Grants Commission of India, <https://www.ugc.ac.in/privatuniversity.aspx>. Accessed 10th Sep. 2017).

⁶⁴ Legislative Brief – The Foreign Educational Institutions (Regulation of Entry and Operations) Bill, 2010, Pre Legislative Research, PRS India, <http://www.prsindia.org/uploads/media/Foreign%20Educational%20Institutions%20Regulation/Legislative%20Brief%20-%20Foreign%20Education%20Bill.pdf>. Accessed 15th Sep. 2017.

Foreign institutions operate either from their home campuses or through linkages with an Indian partner. An article published in 2012 notes that there were 631 foreign education institutions operating in India at the time, of which had government accreditation.⁶⁵ Graduates of unaccredited universities found it difficult to get government jobs or progress to postgraduate study at local public universities.⁶⁶ Currently, any partnership agreements between foreign and Indian institution must be approved by the UGC and approvals need to be renewed every five years.

Legislation to allow foreign universities to establish campuses and award degrees in India was cleared by a parliamentary committee and was sent to Parliament.⁶⁷ The bill sought to regulate entry and operation of foreign educational institution seeking to provide higher education, by establishing that foreign universities have to obtain the necessary registration/approval.⁶⁸ However, there has been no further progress in this regard, and as of January 2017, the legal framework was still not in place for foreign educational institutions to set up campuses in India.⁶⁹

Mandatory Accreditation - Since 2013, it has become mandatory for higher education institutions to be accredited by the University Grants Commission, as per the University Grants Commission (Mandatory Assessment and Accreditation of Higher Educational Institutions) Regulations 2012 (19th January 2013).

Accreditation is defined as a process of quality control in higher education, whereby, as a result of evaluation or assessment or by any other scientific method followed by Accreditation Agencies, a Higher Educational Institution or any programme conducted therein recognised as conforming to parameters of academic quality and benchmarking of such academic quality determined by the University Grants Commission. (Section 2(a) of the Regulation.)

The Regulations are applicable to (i) Universities established and/or incorporated by or under a Central Act, a Provincial Act or a State Act; (ii) all institutions, other than technical institutions, declared by notification under Section 3 of the University Grants Commission to be deemed to be universities; (iii) all colleges, other than technical institutions, including autonomous colleges. (Section 1.2 of the Regulation.)

The University Grants Commission of India has recognised the National Board of Accreditation (NBA) to conduct accreditation of technical programmes offered by technical institutions.⁷⁰

⁶⁵ Indian government puts foreign university legislation on the shelf, ICEF Monitor, 17th Aug. 2012, <http://monitor.icef.com/2012/08/indian-government-puts-foreign-university-legislation-on-the-shelf/>. Accessed 12 Sep. 2017.

⁶⁶ Ibid.

⁶⁷ India moving forward with education reforms, ICEF Monitor, 23rd Apr. 2013, <http://monitor.icef.com/2013/04/india-moving-forward-with-education-reforms/>. Accessed 18 Sep. 2017.

⁶⁸ Legislative Brief – The Foreign Educational Institutions (Regulation of Entry and Operations) Bill, 2010, Pre Legislative Research, PRS India, <http://www.prsindia.org/uploads/media/Foreign%20Educational%20Institutions%20Regulation/Legislative%20Brief%20-%20Foreign%20Education%20Bill.pdf>. Accessed 19th Sep. 2017.

⁶⁹ Foreign varsity entry plan, The Telegraph, 13th Jan. 2017, https://www.telegraphindia.com/1170113/jsp/frontpage/story_130103.jsp. Accessed 24th Sep. 2017.

⁷⁰ Norms for Accreditation of Educational Institutions in the country – Press Information Bureau, Government of India – Ministry of Human Resource Development, <http://pib.nic.in/newsite/PrintRelease.aspx?relid=106787>. Accessed 28 Sep. 2017.

Under section 4(1) of the Regulation, it is mandatory for each Higher Educational Institution to be accredited by the Accreditation Agency after passing out of two batches or six years, whichever happens first, in accordance with the norms and methodology prescribed by such agency or the Commission, as the case may be. Further, every Higher Educational Institution intending to commence academic operations after coming into force of these regulations shall apply for assessment and accreditation to the Assessment and Accreditation Agency as per Clause 4.1 (Section 4.4 of the Regulation).

Accreditation is valid for a period of 5 years and it is mandatory for each accredited higher educational institution to apply for reaccreditation six months before expiry of the five-year period in accordance with norms and procedures by relevant Accreditation Agency.

Maintaining quality - Currently, the NAAC and NBA are responsible for accreditation of higher educational institutions in India and all institutions are under the purview of the UGC.

In June 2017, an article published in the Economic Times discussed a decision made to empanel reputed national and international accreditation agencies, in addition to India's own National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA).⁷¹ The agencies are to be regulated by the UGC and are to carry out accreditation on quality parameters in a transparent and objective manner.⁷²

(b) Malaysia

Higher Educational Institutions – Higher education in Malaysia is governed by the Universities and University Colleges Act 1971 and Private Education Higher Education Institutions Act 1999. Polytechnics and community colleges are legislated by the Education Act 1996. The establishment of institutions is as follows.

- Public Higher Education – i.e. Public Universities, polytechnics, community colleges and teacher training institutions, are to be established through an Act of Parliament.
- Private Higher Education – i.e. private universities, university colleges, foreign university branch campuses and colleges, are to be established upon approval by the Ministry of Education.

Standards and Quality Assurance – Initially, the system for quality assurance for public and private higher education providers was different. Public universities were left to internal quality assurance mechanisms, although regularly monitored by the government's Quality Assurance Division (QAD) established in 2002. Private higher

⁷¹ Anubhuti Vishnoi, 'Govt plans joint degrees with foreign varsities, higher pay to faculty for better education in India', The Economic Times, 22 June 2017, <http://economictimes.indiatimes.com/industry/services/education/govt-plans-joint-degrees-with-foreign-varsities-higher-pay-to-faculty-for-improving-education/articleshow/59260399.cms>. Accessed 30 Sep. 2017.

⁷² Ibid.

education providers were subject to the Lembaga Akreditasi Negara (LAN), which was established by the LAN Act.⁷³

The problem was that a bifurcated system resulted in decentralization of quality control and assurance. This issue was further compounded by the rise of a skills education (vocational training) sector and a heightened need for a uniform quality assurance framework and human capital development.⁷⁴ As a result, in 2007, the Malaysian Qualifications Agency (MQA) was established based on the Malaysian Qualifications Agency Act, which merged QAD and LAN and centralised control and assurance of quality for both public and private institutions of higher education into a single agency.⁷⁵ Further, a national qualifications framework was officially introduced in 2007 as the Malaysian Qualifications Framework (MQF), with the MQA being given responsibility for implementation of the MQF as the basis for quality assurance of higher education and as a reference point for criteria and standards for national qualifications.⁷⁶

(c) Australia

Higher Educational Institutions – All institutions intending to provide Australian Higher Education Qualifications need to be registered, and need to apply to the Minister of Education to use the word ‘university’ in their title. The institutions need to be registered by the Tertiary Education Quality and Standards Agency (TESQA).⁷⁷

Standards and Quality Assurance – The TESQA is Australia’s national regulatory body, established in July 2011, replacing the Australian Universities Quality Agency. It is responsible for assuring quality of Australia’s large, diverse and complex higher education sector by registering and evaluating the performance of higher education providers, including universities, against the Higher Education Frameworks (national standards).⁷⁸

Therefore, in order to provide Australian qualifications, the institution needs to be registered and subject to quality assurance of the TESQA, to be in line with national standards.

(d) Pakistan

Higher Educational Institutions – In Pakistan, the higher education institutional structure consists of universities and colleges; affiliated colleges and constituent colleges (run by government, private, religious or philanthropic organisations); and private universities.

⁷³ National Institution for Academic Degrees and University Evaluation, Briefing on Malaysia: Quality Assurance in Higher Education, February 2015, http://www.niad.ac.jp/n_kokusai/info/malaysia/no17_BriefingonMalaysiaQAinHE_ENG_protected.pdf. Accessed 1 Oct. 2017.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Guidelines for the use of the word ‘university’, Australian Government – Department of Education and Training, <https://www.education.gov.au/guidelines-use-word-university>. Accessed on 11 Sep 2017.

⁷⁸ Quality and Legislative Frameworks – Department of Education and Training, <https://www.education.gov.au/quality-and-legislative-frameworks>. Accessed on 11 Sep. 2017.

Standards and Quality Assurance – The Higher Education Commission (HEC) is an autonomous organisation and is directly responsible for quality assurance of higher education in Pakistan.⁷⁹ This includes accrediting institutions of higher education and prescribing conditions for the establishment of private institutions of higher education.⁸⁰

In 2005, Pakistan had a total of 54 private degree-awarding institutions, which needed to meet federal criteria set in place for such institutions.⁸¹

⁷⁹ Nordic Recognition Information Centres, 'Report on the System of Education in Pakistan', October 2006.

⁸⁰ Ibid.

⁸¹ Ibid.

6. Sri Lanka's performance in International Indicators

This section assesses Sri Lanka's education sector through examining three international indicators: 1) the Global Competitiveness Index, 2) the Times Higher Education Rankings and 3) the QS World University Rankings.

6.1. Global Competitiveness Index

The Global Competitiveness Index was developed by the World Economic Forum to assess the competitiveness landscape of 138 countries by providing insight into the drivers of productivity and prosperity in these countries. The Global Competitiveness Index report is published every year and considers a range of indicators that contribute to a country's overall competitiveness.

The data presented in the assessment given below has been extracted from the 2015-16 and 2016-17 Global Competitiveness Reports.

As this study aims to gauge and compare Sri Lanka's education sector with those of other countries, it considers only the indicators from the Global Competitiveness Index that relate to education. Details on the specific indicators that were considered are given below:⁸²

- Standard of primary education
This is an important indicator as it indicates the quality of the foundations of formal education. This indicator is measured through two sub-indicators, namely the quality of primary education and the primary education enrollment rates of a country.
- Quality of higher education
Higher Education here refers to both secondary and tertiary education. This indicator is measured through four sub-indicators, namely, quality of the country's education system (how well the educational system of a country meets the needs of a competitive economy), quality of math and science education, quality of management schools and the level of Internet access in schools. This indicator is important as the quality of a country's secondary and tertiary education plays a big a big role in determining the productivity and the quality of the country's future workforce.
- Quantity of higher education
Here too, higher education refers to both the secondary and tertiary education. The quantity of higher education refers to the extent of access to secondary and tertiary education amongst a country's population. This indicator is measured through two sub-indicators, namely the enrollment rate in secondary education and the enrollment rate in tertiary education of a country.

⁸² World Economic Forum . "Global Competitiveness Report 2016-17". *weforum.org*, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf. Accessed on 2 Sep. 2017.

- Quality of Scientific Research Institutions & University-Industry Collaboration in Research and Development
These two indicators specifically measure the ability of a country's universities and education system to generate new knowledge and innovation.

In this assessment, Sri Lanka's ranking in terms of the above indicators will be compared within the following groups: (a) with all the 138 countries considered in the World Economic Forum study, (b) with middle income countries and (c) with lower middle income countries (the sub-category that Sri Lanka belongs to).

(a) Global Comparison (with all 138 countries considered in the study)

Standard of Primary Education

In terms of the standards of primary education, Sri Lanka ranked #29 in 2016-17, which was an improvement from its rank of #37 in 2015-16. Sri Lanka ranks ahead of more developed nations such as Korea, Hong Kong, Spain, Israel and the United States.⁸³ Sri Lanka also leads the ranking for Primary Education in South Asia, with India ranking at #57, Nepal at #72, Bhutan at #91, Bangladesh at #112 and Pakistan at #134. (Only six South Asian countries were considered in this study. They were Sri Lanka, India, Pakistan, Nepal, Bangladesh and Bhutan.)

Thus, Sri Lanka's position with regard to this indicator seems to be relatively strong – both globally and in South Asia – and that it seems to be improving over time.

Quality of Higher Education (Secondary and Tertiary Education)

Regarding the overall quality of higher education, Sri Lanka ranks #42, which was a slight decrease from its 2015-16 rank of #40. In this ranking, other developing nations in Asia, such as Malaysia and Indonesia, ranked higher than Sri Lanka, at #18 and #39, respectively. However, Sri Lanka leads the ranking compared to the other South Asian countries, with India being ranked at #44, Bhutan at #66, Pakistan at #93, Nepal at #100, and Bangladesh ranking at #109. (As mentioned above, only six South Asian countries were considered in the study.)⁸⁴

The indicator for assessing the Quality of Higher Education is made up of a number of sub-indicators. In terms of the sub-indicators of quality of Math and Science education, Sri Lanka ranks #28, ahead of more developed nations such as Israel, Korea Republic, USA and the UK. However, in terms of another sub-indicator, Internet access in schools, Sri Lanka ranks #75, trailing behind much less developed countries such as Mongolia (#42), Senegal (#48), Tajikistan (#57) and Rwanda (#64).

⁸³ World Economic Forum. "Primary Education" *Global Competitiveness Index, Competitiveness Rankings*. [weforum.org, http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.A.04.02](http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.A.04.02). Accessed on 31 Aug. 2017.

⁸⁴ World Economic Forum. "Quality of Education". *Global Competitiveness Index, Competitiveness Rankings*. [weforum.org, http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.02](http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.02). Accessed on 31 Aug. 2017.

Although developing countries in Asia such as Malaysia and Indonesia rank higher than Sri Lanka with regards to the Quality of Higher Education indicator, Sri Lanka has the highest ranking of the South Asian countries. In terms of the sub-indicators, which have driven the overall indicator of quality of higher education, the high standards that Sri Lanka has maintained in its Math and Science education is notable. In this regard, Sri Lanka surpasses even the US. However, a significant impediment to improving Sri Lanka's quality of higher education is the lack of Internet access in Schools.

Quantity of Higher Education

In terms of quantity of higher education, which is measured in terms of the enrolment rates in secondary and tertiary education, Sri Lanka ranks #88. This was a slight increase from the 2015-16 ranking of #89. Sri Lanka's secondary education enrollment is ranked #48, with an enrollment rate of 99.7%. Hence the low rank for quantity of higher education can only be attributed to the lack of access to tertiary education, where Sri Lanka ranks #98 (the same ranking as in 2015-16). Sri Lanka's tertiary education enrolment rate is 20.7%, which lags far behind the top ten countries such as Greece, Korea, Spain, Finland and the United States whose enrolment rates exceed 80%. Comparing Sri Lanka's Tertiary education enrolment to the other countries in South Asia, we can see that India ranks slightly higher than Sri Lanka with a tertiary enrolment rate of 23.9% and a ranking of #93. In contrast however some of the other South Asian Countries fare much worse. For instance, Nepal ranked #105 with a tertiary enrolment rate of 15.8%, Bangladesh ranked #109 with a tertiary enrolment rate of 13.4%, Bhutan ranked #113 with a tertiary enrolment rate of 10.9% and Pakistan ranked #115 with a tertiary enrolment rate of 10.4%.⁸⁵

Thus, it appears that the factor that is dragging down Sri Lanka's overall ranking with regards to the quantity of higher education is the enrolment rate in tertiary education, which is almost one fifth of the enrollment rate in secondary education.

Research & Development and Innovation - Quality of Scientific Research Institutions and University-Industry Collaboration in Research and Development (R&D)

In terms of the quality of Scientific Research Institutions and University-Industry Collaboration in Research and Development (R&D), Sri Lanka ranks #55 and #51, respectively. While Sri Lanka's rank in terms of the quality of Scientific Research Institutions decreased (from #39 in 2015-16), University-Industry Collaboration in Research and Development has considerably improved (from #109 in 2015-16). The fact that there is an improvement in University-Industry collaborations in Sri Lanka is a positive sign as it suggests that the relevance of Sri Lanka's university education and its propensity to innovate in the context of the private sector and businesses has increased.

With regards to both quality of Scientific Research Institutions and University-Industry Collaboration in Research and Development (R&D), Sri Lanka is lagging behind other middle income developing countries: India ranks #36 and #24, respectively; Malaysia

⁸⁵ World Economic Forum. "Quantity of Education". *Global Competitiveness Index, Competitiveness Rankings*. [weforum.org, http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.01](http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.01). Accessed 02 Oct. 2017.

ranks at #23 and #11, respectively; Indonesia ranks at #41 and #28, respectively; China ranked #40 and #30, respectively; and Kenya ranked #49 and #26, respectively.⁸⁶

An assessment of how Sri Lanka fares with respect to the middle-income countries and the lower middle countries is given below.

Refer Annex 11 for data relevant to this section.

(b) Comparison with Middle Income Countries⁸⁷

In the assessment of the middle-income countries, only three of the above mentioned indicators have been taken into consideration. These are standard of Primary Education, Quality of Higher Education and Quantity of Higher Education.

In terms of its standard of Primary Education, Sri Lanka ranks at #2, coming second only to Albania.⁸⁸ It ranks higher than other middle-income countries such as Russia, Argentina and Brazil.

In terms of the quality of its higher education, Sri Lanka ranks amongst the top 10 at #6. Malaysia ranks at #1 and India ranks just below Sri Lanka at #7.⁸⁹

However, in terms of the quantity of higher education, Sri Lanka ranks at #42 out of the 72 middle-income countries assessed. Although Sri Lanka ranks higher than countries such as India (ranked #54) and notably Malaysia (ranked #48), it ranks behind many of the developing nations in South East Asia, such as the Philippines (#30), Vietnam (#34) and Indonesia (#41).⁹⁰

Refer Annex 12 for data relevant to this section.

(c) Comparison with Lower Middle Income Countries

In the assessment of the lower middle-income countries, only three of the abovementioned overall indicators have been taken into consideration. These are the standard of Primary Education, Quality of Higher Education and Quantity of Higher Education.

In comparison with the other lower Middle Income countries⁹¹, Sri Lanka's primary education system ranks at #1.⁹²

⁸⁶ World Economic Forum. "Global Competitiveness Report 2016-17". *weforum.org*, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf. Accessed 02 Oct. 2017.

⁸⁷The World Bank. "World Bank Country and Lending Groups, Country Classifications". *Data. datahelpdesk.worldbank.org*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>. Accessed 2 Oct. 2017.

⁸⁸ World Economic Forum. "Primary Education". *Global Competitiveness Index, Competitiveness Rankings. weforum.org*, <http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.A.04.02>. Accessed 2 Oct. 2017.

⁸⁹ World Economic Forum. "Quality of Education". *Global Competitiveness Index, Competitiveness Rankings. weforum.org*, <http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.02>. Accessed 2 Oct. 2017.

⁹⁰ World Economic Forum. "Quantity of Education". *Global Competitiveness Index, Competitiveness Rankings. weforum.org*, <http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.01>. Accessed 2 Oct. 2017.

⁹¹ The World Bank. "World Bank Country and Lending Groups, Country Classifications". *Data. datahelpdesk.worldbank.org*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>.

In terms of the quality of higher education, Sri Lanka is ranked #2, just behind Indonesia.⁹³ However, when it comes to the quantity of higher education, Sri Lanka is not even in the top 10 – it is ranked #16.⁹⁴

Hence, the above assessment shows that although Sri Lanka fares well compared to other countries in terms of its primary education and in the *quality* of its secondary and tertiary education, it lags behind when it comes to *access* to tertiary education.

Refer Annex 13 for data relevant to this section.

6.2. Sri Lanka in Global University Rankings

The following section aims to give a synopsis of the position of Sri Lankan universities in Global University Rankings. The following indexes have been used to make the assessment.

- (a) Times Higher Education World Education Rankings
 - World University Ranking Index
 - Asia University Ranking Index
 - BRICS countries (Brazil, Russia, India, China, South Africa) and Emerging Economies University Ranking Index
- (b) QS University Rankings
 - QS World University Ranking index
 - Asia University Ranking index
 - Graduate Employability Ranking index

(a) Times Higher Education World Education Rankings⁹⁵

The University of Colombo is the only Sri Lankan university listed in the Times Higher Education Rankings. The rankings for the University of Colombo in terms of the World Ranking, Asian University Ranking and the BRICS and Emerging Economy Ranking as assessed by the Times Higher Education are given below.

Accessed 2 Oct. 2017.

⁹² World Economic Forum. "Global Competitiveness Report 2016-17". *weforum.org*, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf. Accessed 2 Oct. 2017.

⁹³ World Economic Forum. "Quality of Education". *Global Competitiveness Index, Competitiveness Rankings*. *weforum.org*, <http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.02>. Accessed 2 Oct. 2017.

⁹⁴ World Economic Forum. "Quantity of Education". *Global Competitiveness Index, Competitiveness Rankings*. *weforum.org*, <http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/#series=GCI.B.05.01>. Accessed 2 Oct. 2017.

⁹⁵ Times Higher Education. "University of Colombo." *timeshighereducation.com*, <https://www.timeshighereducation.com/world-university-rankings/university-colombo>. Accessed 2 Oct. 2017.

World University Ranking:

In the 2018 world university rankings, the University of Colombo was ranked 801-1000 amongst the 1102 universities considered in the study. In comparison, the University of Colombo's 2017 ranking was 800+ amongst the 981 universities considered.⁹⁶ This indicates that the University of Colombo's ranking has not changed over the period. However, the University has managed to stand ground despite the fact that more universities were considered in the 2018 ranking than in the 2017 one. Additionally, the University's overall score has improved: from 8.3 in 2017 to 15.6 in 2018.

Asia University Ranking

In the Asia University Rankings of 2017, the University of Colombo is ranked 251+ amongst the 298 Asian Universities assessed. The University of Colombo did not feature in the 2016 Asia University Rankings in which only 201 universities were assessed.

BRICS and Emerging Economies University Ranking⁹⁷

In the BRICS and Emerging Economies University Rankings of 2017, the University of Colombo is ranked 251+ amongst the 300 universities assessed. The University of Colombo did not feature in the BRICS and Emerging Economies University Rankings of 2016, in which only 200 universities were assessed.

Detailed Information on the ranking of University of Colombo as per the World University Ranking is presented below (refer table 6).⁹⁸

⁹⁶ If a ranking falls within two numbers for example 801-1000, this means that all the universities that feature in this rank share the same score. If a ranking features a + after the rank, for example 251+, this means that from the 251st position onwards until the end of the rankings all the Universities share the same score.

⁹⁷ BRICS and Emerging Economy Universities includes only institutions in countries classified as emerging ("Advanced Emerging", "Secondary Emerging" or "Frontier") by FTSE Russell, including the "BRICS" nations of Brazil, Russia, India, China and South Africa.

⁹⁸ Times Higher Education. "World University Rankings 2018." *timeshighereducation.com*, https://www.timeshighereducation.com/world-university-rankings/2018/world-ranking#!/page/0/length/-1/sort_by/scores_overall/sort_order/asc/cols/scores. Accessed 2nd Oct. 2017.

Table 6. University Of Colombo - Breakdown Of The Scores And Rankings For Each Individual Area

Area	Methodology - Indicators ⁹⁹	2017		2018	
		Score	Rank (Out of 981)	Score	Rank (Out of 1102)
Overall Ranking	-	8.3—18.5	800	15.6 – 21.4	801
Teaching (Learning Environment)	<ul style="list-style-type: none"> ▪ Teaching reputation, ▪ Staff to student ratio, ▪ Doctorate to bachelor's ratio, ▪ Institutional income, ▪ Doctorates awarded to academic staff. 	12.2	973	25	544
Research (Volume, income, reputation)	<ul style="list-style-type: none"> ▪ The volume of research produced. ▪ Income from research, and ▪ University's reputation for research excellence among its peers. <p>The most prominent indicator in this category considers a university's reputation for research excellence among its peers, based on the responses to our annual Academic Reputation Survey.</p>	6.8	951	7.9	1016
Citations (Research Impact)	<ul style="list-style-type: none"> ▪ Influence of research, which considers the university's role in spreading new knowledge and new ideas. <p>Research influence is examined by capturing the number of times a university's published work is cited by scholars globally.</p>	11.0	897	12.9	977
Industry Income (Research Income from the Industry)	A university's ability to help industry with innovations, inventions and consultancy has become a core mission of the contemporary global academy. This category seeks to capture such knowledge-transfer activity by considering how much research income an institution earns from industry (adjusted for PPP), scaled against the number of academic staff it employs.	32.1	930	0.6	1095

⁹⁹ Times Higher Education. "World University Rankings 2018 methodology" *timeshighereducation.com*, <https://www.timeshighereducation.com/world-university-rankings/methodology-world-university-rankings-2018>. Accessed 2nd Oct. 2017.

International Outlook (staff, students, research)	<ul style="list-style-type: none"> ▪ Diversity on campus, and ▪ Academic collaboration with international colleagues on research projects. <p>The ability of a university to attract undergraduates, postgraduates and faculty from all over the planet is key to its success on the world stage.</p>	37	597	38.2	637
---	---	----	-----	------	-----

Source: Times Higher Education (refer Footnote 92).

The information above reveals that the University of Colombo has improved considerably in terms of its teaching ranking - from a ranking of 973 in 2017 to 544 in 2018. The University is also ranked considerably well when it comes to International Outlook, with ranking of 637th (although this is a drop from the University's rank of 597th in 2017). However, in terms of the other indicators, such as Research, Citations and Industry Income, the University of Colombo is ranked amongst the lowest institutions. It is notable that from 2017 to 2018, the rankings for these indicators have fallen further. It is also important to note that the score for Industry Income for the University of Colombo (which is the university's ability to help industry with innovations, inventions and consultancy) has decreased significantly - from 32.1 in 2017 to 0.6 in 2018.

(b) QS World University Rankings ¹⁰⁰

Information on the position of Sri Lankan universities in the QS World University Rankings is presented below (refer table 7).

Table 7. Sri Lankan Universities in QS World University Rankings from 2016-2018

University	QS World University Ranking			Asian University Ranking		Graduate Employability Ranking
	2016	2017	2018	2015	2016	2018
University of Colombo	701 (out of 891 Universities)	701 (out of 916 universities)	751 (out of 959 universities)	151 (Out of 301 Universities)	172 (Out of 351 Universities)	301 (Out of 494 Universities)
University of Peradeniya	-	-	-	-	251 (Out of 351 Universities)	-

Source: QS Quacquarelli Symonds Limited (refer Footnote 93).

¹⁰⁰ QS Quacquarelli Symonds Limited 1994 – 2017. "Sri Lanka", www.topuniversities.com, <https://www.topuniversities.com/universities/country/sri-lanka>. Accessed 2 Oct. 2017.

In the World University Rankings, the University of Colombo has fallen #701 in 2017 to #751 in 2018. Similarly, the University's position in the Asian University Rankings has dropped from #151 in 2015 to #172 in 2016. Additionally, the University of Peradeniya was ranked in the Asian University Ranking of 2016 at #251, which was a notable improvement, considering that the University of Peradeniya was not featured in these Rankings in 2015.

7. Annexes

Annex 1 – Summary of Arguments in the Debate on Private Medical Education¹⁰¹

(i) Arguments in Favour of Private Medical Education

Argument 1:

Private medical education allows those that are eligible to enter university but could not gain admission to access a medical education in Sri Lanka (Chairperson of SAITM, Neville Fernando; Former Chairman of UGC G. Samaranayake, M. Nanayakkara – TMA Vol. 7, #11).

Argument 2:

If registration with the SLMC is permitted for graduates from foreign medical students who pass the Examination for Registration to Practice Medicine (ERPM), then registration should not be denied to graduates of local private medical institutions.

Argument 3:

If the government permits private education and private tuition at the primary and secondary levels, as well as in many fields of study in the tertiary education sector, then it should permit private medical education (UNP - Vol. 7, #7/#11).

Argument 4:

If the government permits private medical care, it should also permit private medical education.

Argument 5:

Private medical education in Sri Lanka is one way of retaining the money spent on foreign medical degrees (Neville, Isuru Devapriya).

¹⁰¹ Verité Research. "The Media Analysis." Vol.04, #40; Vol.06, #26 & #28; Vol.07, #5, #7, #11, #23. (Accessible through subscription only.) Accessed on 18th June 2017.

(ii) Arguments Opposing Private Medical Education

Argument 1:

Medical education should be protected as a component of free education (UPFA MP Dinesh Gunewardena & Inter-University Students' Federation Convener Lahiru Weerasekera).

Argument 2:

Allowing private education involves treating education as a commodity, which is an injustice to the rural poor (JVP, Dr. Dewasiri).

Argument 3:

Private medical schools threaten the quality of the medical profession (Minister of Sports Dayasiri Jayasekera).

Argument 4:

Private medical education provides its graduates access to public sector support and employment, which is unfair to those who cannot afford private education.

Argument 5:

The government should not permit private universities to run at the cost of public money/state resources. Therefore private medical students should not be trained at public hospitals (ACMOA).

Argument 6:

There is no need for private education in Sri Lanka. The need for doctors can be met by increasing the number of students admitted to medical schools and by remedying the reasonable needs of doctors who leave the country (Dr. Jayantha Bandara; All Ceylon Medical Officers' Association).

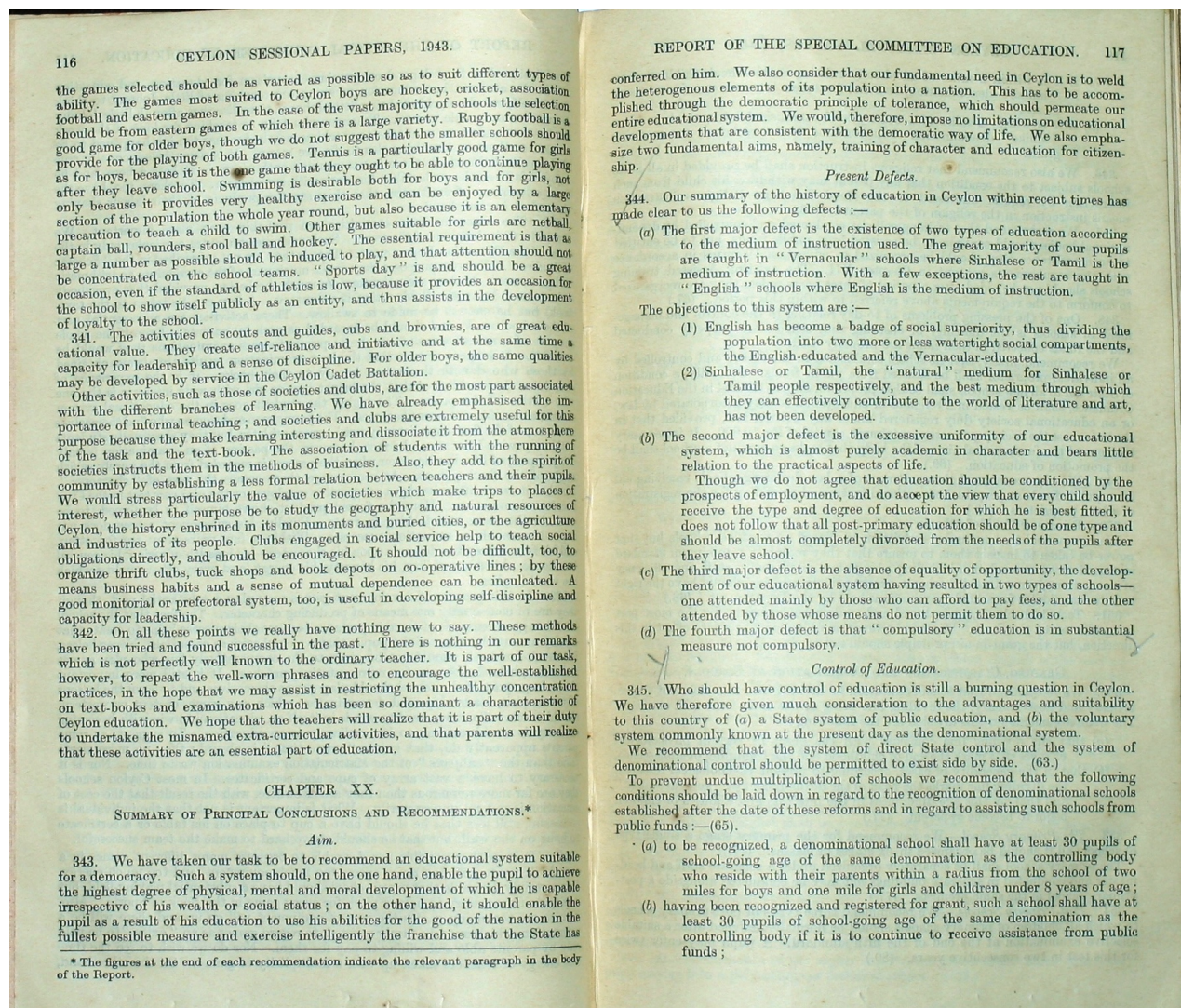
Argument 7:

The entry requirements of private institutions are lower than that of state institutions. It is unfair that students who have money can perform at a lower standard and still receive a medical education and access to the medical profession.

Annex 2 – Key Person Interviews

Name	Designation	Institution
Prof. Nilanthi de Silva	Dean of Medical Faculty	University of Kelaniya
Medical Professional (requested to be anonymous)	Student from Nepal	Currently in the Government medical system
Mr. Kusal Perera	Academic	N/A
Dr. Dilip de Silva	Medical Professional and Health Economist	Family Health Bureau
Prof. Malik Ranasinghe	Commission Member	University Grants Commission
Prof. Priyan Dias	Senior Professor, Faculty of Engineering	University of Moratuwa

Annex 3 – Recommendations of the Special Committee on Education¹⁰²



¹⁰² Kannangara, Christopher W. W. *Report of the Special Committee on Education, (Ceylon)*. Colombo: Printed at the Ceylon Govt. Press, 1950. Pp. 116-122. Print. Accessed on 15th June 2017.

118 CEYLON SESSIONAL PAPERS, 1943.

(c) if it is within 2 miles of an already existing State school, children of an "unlike" denomination shall not be taken into account for assessing grant ;

(d) if it is within 2 miles of a State school established later, children of an "unlike" denomination shall continue to be reckoned for assessing grant.

346. We also recommend that religious instruction shall be provided in all State schools subject to the condition that any parent may withdraw his child from such instruction by request addressed to the Head Teacher. Religious instruction means instruction in the religion of the parents. (66.)

347. We recommend that training colleges conducted and controlled by denominational bodies should continue to be assisted from public funds, but to be entitled to such assistance they should be organized as educational centres in accordance with the requirements set out in Chapter XII. The existing Assisted training schools should not be aided after a period of three years unless they are reorganized to conform to the requirements above referred to within this period. (67.)

348. One of the pressing problems of to-day relating to the control and management of schools is the difficulty of ensuring that schools are properly conducted and the funds collected in their name are properly used.

We recommend, firstly, that no school established in the future and controlled by an individual proprietor shall be assisted from public funds. Secondly, a condition of State aid to all new schools shall be that proprietorship, as defined in the Education Ordinance, shall be vested in a religious or educational society incorporated by law. In or an educational society duly registered under any written law, provided that in the latter case the society possesses a minimum capital of Rs. 10,000. It is necessary that one of the fundamental aims of the body that seeks to conduct a school shall be the promotion of education. (69.)

349. We also recommend the enactment of a law declaring schools receiving aid from public funds as perpetual educational trusts and providing for the registration of school proprietors. (69.)

350. Private or Unaided schools.

We recommend that no undue restriction be placed on unaided schools but that power be taken to inspect them to ensure that they maintain a minimum standard in regard to accommodation including playground, equipment, staff and efficiency of instruction given. Unaided schools, except private tutorials, should have the right to enter candidates for school examinations held by the Department. (68.)

351. Technical schools, agricultural and trade schools should for the most part be conducted by the State. There is however no objection to private effort in this direction, but the grant-in-aid principle should not apply. (70.)

GRADING, CLASSIFICATION AND ORGANIZATION OF SCHOOLS.

352. We recommend that school education be divided into two clear-cut stages, primary and post-primary, the dividing line being at the end of the fifth standard. The main arguments for this division are the following :—

(a) that the dividing line coincides with the onset of certain physiological changes that mark the end of childhood and the beginning of adolescence,

(b) that in the generality of cases, according to present psychological research, the dividing line marks the peak of the development of "general ability" and that by this age differences in the interests and abilities of children begin to become apparent. (77.)

353. *The Primary School.*—We recommend for the primary stage a single type of school and it should be organized in six stages or classes. (77.)

The primary school shall be separately organized under a separate staff and head-master and conducted in separate buildings but may be conducted alongside a post-primary school in the same premises. (77.)

354. *Post-Primary Schools.*—We recommend three types of post-primary schools to which all children of primary schools should be normally assigned after a suitable selective examination at the end of the fifth standard. A pupil may enter twice for this test in two consecutive years. (80.)

REPORT OF THE SPECIAL COMMITTEE ON EDUCATION. 119

The three types are :—

(a) Secondary schools leading to the University and Professional Colleges,

(b) Senior schools leading to Polytechnics and Technical Schools, and

(c) Practical schools leading to the Agricultural and Trade schools.

Each of these post-primary schools should have a lower and a higher department. The work in the lower departments, extending over three years, should be practically the same in all three types.

The complete course in the secondary school should be one of 7 years and in the senior school 5 years. The practical school, which will normally have a three-year course, may have a higher practical course of two years for those pupils who are capable of benefiting from such education. (79.)

The classification of pupils at the end of the fifth standard is not final since they may be reclassified at the end of the eighth standard or earlier. (81.)

355. *Age limits.*—We recommend the following age limits :—

(a) No pupil who is 14 at the beginning of the school year, in the case of Muslims 15, shall be admitted to or retained in the primary school,

(b) No pupil shall be retained in the fifth standard for more than two years,

(c) No pupil who is 17 at the beginning of the year shall be retained in the practical school except in the higher practical department,

(d) No pupil who is 18, in the case of Muslims 19, at the beginning of the year shall be retained in the senior school,

(e) No pupil who is 20, in the case of Muslims 21, at the beginning of the year shall be retained in the secondary school. (88.)

Medium of Instruction.

356. (a) We recommend that the medium of instruction in the primary school shall be the mother-tongue.

To cover doubtful and difficult cases, we have evolved the following definition of mother-tongue :—

(1) Where both parents are Sinhalese or Tamil, then Sinhalese or Tamil, as the case may be, shall be the mother-tongue.

(2) Where the parents belong to different communities, the home-language, i.e., the language commonly spoken by the parents and the children, shall be deemed to be the mother-tongue.

(3) In the case of all other persons, anyone of the following languages—English, Sinhalese, Tamil or Malay—which ever the parents choose to adopt shall be deemed to be the mother-tongue. (90.)

(b) English should be introduced as a language subject in all primary schools where it is not the medium. Similarly in primary schools where English is the medium Sinhalese or Tamil shall be a language subject. In primary schools where there are a sufficient number of Muslim children Arabic should also be taught as a language subject. (95.)

(c) In the lower department of the post-primary schools the medium of instruction shall be the mother tongue or bilingual (one of the languages being English). If the medium is not English or bilingual English shall be a compulsory second language. If the medium is English, Sinhalese or Tamil shall be a compulsory second language. (93.)

(d) In the higher department of the secondary or senior schools the medium of instruction shall be English, Sinhalese, Tamil or bilingual. If the medium is not English or bilingual English shall be a compulsory second language. If the medium is English, Sinhalese or Tamil shall be a compulsory second language. (95.)

(e) The higher practical course shall be given through the mother tongue or bilingual medium.

Technical and Vocational Education.

357. We recommend that after the conclusion of the course in the practical school, the pupil who desires to continue his education may go into an agricultural school run by the Agricultural Department or into a trade school run by the Department of Commerce and Industries. (124, 125.)

358. At the conclusion of the higher department course of the senior school the pupil may go into a polytechnic or technical school. (123.)

120

CEYLON SESSIONAL PAPERS, 1943.

359. At the conclusion of the higher department course of the secondary school the pupil may go into the University or a professional college.

360. Pupils of senior and secondary schools who have the necessary bent may be encouraged to pursue an agricultural or trade school course. (130.)

361. State Technical schools should be administered by the Department of Education. (129)

Examinations.

362. We divide examination into two classes, "fitness" tests and "attainment" tests. A fitness test looks to the future; it seeks to determine whether the candidate is fit to proceed to a certain course of study. An attainment test looks to the past; it seeks to determine whether the candidate has attained a set standard in the courses of study which he has pursued. (131)

363. We recommend a fitness test at the conclusion of the Vth standard. The pupils will be tested in Intelligence, the mother tongue, Arithmetic and the compulsory second language. (80.)

364. We also recommend a further fitness test at the conclusion of the VIIIth standard. The pupils will be tested for General Ability and in the following subjects:—Elementary Mathematics, mother tongue and the compulsory second language. (81, 150.)

365. We recommend the following attainment tests:—

- (1) A Senior School Certificate examination for pupils who complete the senior school course and for pupils who complete the secondary school course (with the exception of the Higher School Certificate course). (146.)
- (2) A Practical School Certificate examination for pupils who complete the higher practical course in the practical schools. (144.)
- (3) A Higher School Certificate examination for secondary school pupils who have passed the Senior School Certificate examination. (The next attainment test for senior school pupils after the Senior School Certificate will be the Diploma examination of the Technical schools and for the Practical School Certificate holders the Diploma examination of the agricultural or trade schools). (149.)
- (4) Diploma examinations for pupils who complete the respective courses of the technical schools, agricultural schools, and trade schools.

Supply of Teachers.

366. We suggest the following classification for the future recruitment of teachers:—

- (a) Trained Graduates—
 - Graduate with technical qualifications (technically trained graduate)
 - Untrained Graduate (probationer),
- (b) Technically Trained Specialist,
- (c) Trained Teacher,
- (d) Approved Specialist,
- (e) Probationer (maximum period of probation three years). (155.)

367. The training of graduates should be undertaken by the University. We recommend that the University be provided with the necessary funds at an early date to enable a Training Department to be organized. (155.)

368. For the training of non-graduate teachers we recommend a single type of Training College. It should be conducted in conjunction with an educational centre. An educational centre should consist of a Training College and schools in which the art of teaching can be practised. The Principal of the College shall be the controller of these schools. There should be attached to every Training College a primary school, a practical school, and a senior school or a secondary school. The centre should have playing fields, a gymnasium, a workshop, suitable laboratories and agricultural gardens in close proximity for the use of the component institutions. The residential system which has been in operation for many years should be continued. (158, 159.)

369. The Technically Trained Specialist should possess a Diploma of a Technical or Agricultural College, or a College of Music, Art or Physical Training. (157.)

REPORT OF THE SPECIAL COMMITTEE ON EDUCATION. 121

370. *Probationers.*—We recommend the creation of a grade of probationary teacher for the primary and practical schools.

The recruitment of probationers will be made on the results of a selective examination, the minimum qualification for entry to which will for the present be the Senior School Certificate or equivalent examination. (163.)

The period of probation shall not exceed three years. At the end of this period the probationer should either join a Training College or give up teaching if he is found unfit for the profession.

371. We consider that the higher department of the secondary school should be staffed by trained graduates, graduates and approved specialists for certain special subjects. Similarly the higher department of the senior school should be staffed by trained graduates, graduates with technical qualifications, graduates and approved specialists. Probationary teachers may be employed in the lower departments provided they possess additional qualifications. (164.)

Educational Finance.

372. We recommend that education should be free from the kindergarten to the University. (171.)

373. We recommend that provision should be made to afford free board and lodging to poor students, where necessary, whatever be the type of education they receive. (170.)

374. We recommend that teachers' salaries in accordance with an agreed incremental scale should remain the basis of computation of grant to Assisted schools including training colleges and that the grant should cover the full salaries of an "eligible" staff (172.)

375. We recommend that the eligible staff, *i.e.*, the staff for which grant will be paid, should be determined on the basis of the following quota of pupils per teacher:— (173)

Primary, practical and senior schools: 27 units of average attendance.
 Secondary school: 22 units of average attendance.

376. We recommend that, besides the salary grant, an equipment grant should be paid annually at the following rates:— (174.)

Primary school: Not exceeding Re. 1.50 per unit of average attendance.
 Practical school: Not exceeding Rs. 2.50 per unit of average attendance.
 Senior and secondary school: Not exceeding Rs. 5 per unit of average attendance.
 Training colleges: Not exceeding Rs. 20 per unit of average attendance.

377. We recommend that the secondary and senior schools be authorised to levy an equipment fee if they choose to do so. In that case they will not receive any equipment grant. The rate of equipment fee shall be as follows:—(174.)

Senior school: Not exceeding Rs. 2 per pupil per mensem.
 Secondary school: Not exceeding Rs. 3 per pupil per mensem.

378. We recommend a salaries scheme for teachers based on the principle of family allowances. The scheme is given in Appendix 7. (176.)

Educational Administration.

379. We suggest that a school survey should be undertaken at the earliest opportunity. The results of the survey should be published and the co-operation of denominational authorities sought to give effect to an accepted plan for the establishment of new schools, amalgamation of existing schools, &c. (178.)

380. We consider that Municipal Councils and the more well-to-do Urban Councils should be called upon to bear a share of the responsibility for education. We recommend that they might begin by assuming sole charge of primary education. The Central Government should contribute a share of the cost, the other share being found from rates. (180.)

381. If a new school is put up in a locality where it is not necessary, the Director of Education should warn the promoters of the school at the earliest opportunity that assistance from public funds should not be expected. (181.)

382. We recommend that provision be made for compulsory education to begin at 5 years of age. (182.)

383. The Director's powers for controlling managers should be increased. We would lay down that a manager should conform to the following requirements :—(183.)

- (a) He should be able to understand the Ordinance, the Code, departmental circulars, &c., and should be able to conduct correspondence without the assistance of a third party in one of the three languages, English, Sinhalese or Tamil,
- (b) He should be of good character and be able to command the respect and confidence of parents and teachers, and
- (c) He, or the proprietor, who recommends his appointment, is possessed of property or funds to the extent of Rs. 10,000 which should be available as an outlay for conducting the school.

384. We recommend that adequate provision should be made for the medical inspection of pupils. (184.)

385. In regard to the recruitment of personnel to the higher posts in the Inspectorate, we consider that while the promotion system may continue, there should be no hard and fast rule against recruitment from the teaching profession. (186.)

386. We recommend that the Inspectorate should be strengthened so that Inspectors may devote the greater part of their time to educational work. (187.)

387. We recommend the abolition of Grade II. (Ordinary) of the Inspectorate. We do not favour the division of the grades of Divisional, District and Circuit Inspectors into sub-grades in the case of future recruitment. (186.)

388. We recommend the constitution of a Central Examination Board to be in charge of all examinations. The Board will exercise executive authority. (188.)

389. We also recommend the constitution of a Council of Educational Research to co-ordinate experiments and research in education. (194.)

390. We have given much consideration to the question of the appointment, dismissal and disciplinary control of teachers of Assisted schools.

We recommend that an Ordinance entitled "The Assisted Schools Teachers' Tenure Ordinance" be passed with the following main provisions :— (194.)

- (a) Appointment to be governed by conditions given in a schedule to the Ordinance.
- (b) Every appointment to be valid for purposes of grant to receive the prior approval of the Director, such approval not being withheld except on grounds of qualifications, efficiency, or character or the financial position of the school or on any other grounds set out in the Code.
- (c) If a teacher's discontinuance is disapproved by the Director, the teacher to be either reinstated or paid a sum equal to a year's salary as compensation.
- (d) The following conditions for discontinuance to be clearly set out :—breach of the terms of appointment, misconduct, general inefficiency, physical or mental infirmity.

391. We also recommend that the same law should constitute an Arbitration Board which will adjudicate on appeals from the manager or the teacher from the decision of the Director. (194.)

CHAPTER XXI.

TRANSITIONAL PROVISIONS.

392. We presume that after the publication of this Report, our proposals will be brought up before the State Council through the Executive Committee of Education. If the proposals are approved it may be necessary to amend the Education Ordinance, No. 31 of 1939, in certain respects. Subsequently a new and revised Code will have to be made and submitted to Council. The amending Ordinance and the new Code should be brought into operation together on the 1st January next following. This date we refer to as the "appointed day". Most of our recommendations can be brought into operation as from that day or given effect to by administrative action. In respect, however, of the grading, classification and

Annex 4 – Higher Educational Institutes under the Universities Act

*Undergraduate Higher Educational Institutes - Established under Section 24A and B of the Universities Act No. 16 of 1978*¹⁰³

Institute Name	Legislation
Institute of Human Resource Advancement	Gazette No. 68/10 of 26th December 1979 - Institute of Workers' Education Ordinance No. 11 of 1979. Institute is to be attached to the University of Colombo (Section 4) - as a Faculty of a Higher Educational Institution established or deemed to be established under the Act (Section 5).
Institute of Indigenous Medicine	Gazette No. 67/14 of 21 st December 1979 Institute is affiliated to the University of Colombo.
National Institute of Library and Information Science	Established by Gazette No. 1050/14 of 22nd October 1998. Institute is attached to the University of Colombo (Section 3) - Gazette No. 1076/1 of 19th April 1999.
University of Colombo School of Computing	Established by Gazette No. 1250/17 of 21st August 2002. Institute is attached to the University of Colombo (Section 2) - Gazette No. 1262/32 of 15th November 2002.
Gampaha Wickramarachchi Ayurveda Institute	Established by Gazette No. 862/8 of 13 th March 1995. Institute is affiliated to University of Kelaniya. (Same Regulation).
Institute of Technology University of Moratuwa	Established by Gazette No. 1121/18 of 03rd March 2000. Institute is attached to University of Moratuwa. (Same Regulation).
Swami Vipulananda Institute of Aesthetic Studies	Established by Gazette No. 1395/22 of 03rd June 2005. Institute is affiliated to Eastern University of Sri Lanka. (Same Regulation).

¹⁰³ University Grants Commission – Sri Lanka. “Universities and Higher Educational Institutions.” <http://www.ugc.ac.lk/en/universities-and-institutes/institutes.html>. Accessed on 18th July 2017.

National Centre for Advanced Studies in Humanities and Social Sciences ¹⁰⁴	Established by Gazette No. 1415/17 of 19th October 2005. Not affiliated to any University. (Same Regulation).
Institute of Agro Technology and Rural Sciences	Established by Gazette No. 1570/34 of 10th October 2008. Institute is affiliated to University of Colombo. (Same Regulation).

¹⁰⁴ Of all the Higher Education Institutes presented above, only the National Centre for Advanced Studies in Humanities and Social Sciences does not award certificates, diplomas or degrees. The initial function of the institute was to offer financial (government) grants to MPhil and PhD candidates studying at local and foreign universities. More recently, the institute has reoriented its function to include holding academic training workshops, launching a journal and becoming a centre for research and intellectual work. For more information, refer the website of the National Centre for Advanced Studies in Humanities and Social Sciences at http://www.ncas.ac.lk/index.php?option=com_frontpage&Itemid=1.

Annex 5 – Degree Awarding Institutes under the Universities Act

Degree Awarding Institutes established under Section 25A of the Universities Act No. 16 of 1978^{105 106}

Degrees of Institutes Recognized under Section 25 A of the Universities Act No. 16 of 1978			
Institute	Degree	Date of Recognition	Private / State
Institute of Surveying and Mapping	Bachelor of Science (Surveying Science)	24.07.1990	Established under Act No. 21 of 1969
Sri Lanka Institute of Information Technology (Guarantee) Limited.	Bachelor of Science in Information Technology *	13.10.2000	Private, incorporated under Companies Act
	Postgraduate Diploma in Information Technology	30.03.2004	
	Postgraduate Diploma in Information Systems		
	Postgraduate Diploma in Information Management		
	Master of Science in Information Technology		
	Master of Science in Information Systems		
	Master of Science in Information Management		
	Bachelor of Business Administration (Special)(Honours)	23.06.2011	
	Bachelor of Science of Engineering in Electrical and Electronic Engineering	04.07.2012	
	Bachelor of Science of Engineering in Mechanical Engineering		
	Bachelor of Science of Engineering in Civil Engineering		
Bachelor of Science of Engineering in Materials Engineering			
Sri Lanka Institute of Development Administration	Postgraduate Diploma in Public management and Financial Management	24.04.2003	Established under Act. No. 9 of 1982
	Master of Public Management		
National Institute of Fisheries and Nautical	B.Sc in Fisheries and Marine Science(General And Special)	16.12.2003	Established under Act. No. 36 of
	B.Sc in Marine Engineering(Special)		

¹⁰⁵ University Grants Commission – Sri Lanka. “Other Recognized Degrees.” <http://www.ugc.ac.lk/en/universities-and-institutes/other-recognized-degrees.html>. Accessed on 17th July 2017.

¹⁰⁶ Ministry of Higher Education & Highways. “Recognized Degree Awarding Institutes & Degree Programs (Under the Section 25A of Universities Act No. 16, 1978).” <http://www.mohe.gov.lk/index.php/en/universities-and-institutes/otherrecognizedinstitutesdegrees>. Accessed on 17th July 2017.

Engineering	B.Sc in Boat Building and Naval Architecture(Special)		1999.
National Institute of Social Development	Bachelor of Social Works Degree	01.06.2005	National Institute of Social Development Act, No. 41 of 1992.
	Master of Social Works Degree (MSW)	07.07.2008	
National Institute of Business Management **	B.Sc. in Business Management (Areas of Specialization: Human Resource Management, Logistics Management, Project Management and Industrial Management)	20.10.2009	Established under National Institute of Business Management Act, No. 23 of 1976.
	B.Sc. in Management Information Systems		
South Asian Institute of Technology and Medicine (Pvt) Ltd. (SAITM)	Bachelor of Medicine and Bachelor of Surgery (MBBS)	30.08.2011	Established under Companies Act No. 07 of 2007
Degree awarding status granted by the Ministry of Higher Education (Specified authority being the Secretary, Ministry of Higher Education) (Note: Check why this is different from the above section)			
National School of Business Management Limited (NSBM)	Bachelor of Science in Business Management (Human Resource Management) (Special)	05.03.2013	Established under Companies Act No. 07 of 2007 and having company number PB 4833
	Bachelor of Science in Business Management (Logistics Management) (Special)		
	Bachelor of Science in Business Management (Industrial Management) (Special)		
	Bachelor of Science in Business Management (Project Management) (Special)		
	Bachelor of Science in Management Information Systems (Special)		
	Postgraduate Diploma in Business Management		
	Postgraduate Diploma in Human Resource Management		
	Postgraduate Diploma in Industrial Management		
	Postgraduate Diploma in Project Management		
	Postgraduate Diploma in Computer Networks		
	Postgraduate Diploma in Software Engineering		
	Bachelor of Arts in Business Communication	19.01.2016	
	Bachelor of Science in Multimedia		
	Master of Business Administration	14.07.2016	
	Master of Business Studies		
	Bachelor of Science Honours in Software Engineering		
Bachelor of Management Honours in Accounting and Finance			
Colombo International	B.Sc (Hons) Maritime Science	09.07.2013	Established under

Nautical and Engineering College (CINEC)	B.Sc (Hons) Marine Engineering		Companies Act. No. 07 of 2007
	B.Sc (Hons) Logistics & Transportations		
Sri Lanka International Buddhist Academy	BA in Buddhist Leadership (BAL) Special	22.02.2013	Established under Companies Act. No. 07 of 2007
	Bachelor of Arts	06.01.2016	
	Bachelor of Arts (Special) in Pali		
	Bachelor of Science in Information Technology		
	Bachelor of Technology in Information Technology and Communication	09.08.2016	
The Institute of Chartered Accountants of Sri Lanka	BSc in Applied Accounting (General)	12.03.2013	Established under Act. No. 23 of 1959
	BSc in Applied Accounting (Special)		
SANASA Campus Limited	Degree of Bachelor of Science (Special) in Banking and Finance	21.01.2014	Established under Companies Act. No. 07 of 2007
	Degree of Bachelor of Science (Special) in Insurance and Risk Management		
	Degree of Bachelor of Science (Special) in Regional Science and Planning		
Horizon Campus	Bachelor of Science in Business Management (Human Resources Management)	26.11.2014	Established under Companies Act. No. 07 of 2007
	Master of Business Administration	07.12.2015	
	Bachelor of Management Honours in Marketing		
	Bachelor of Education	14.07.2016	
	Bachelor of Science in Information Technology / Bachelor of Science Honours in Information Technology		
KAATSU Highly Advanced Medical Technology Training Centre	Bachelor of Science Honours Medical Science in KAATSU	07.01.2015	Established under Companies Act. No. 07 of 2007
	Bachelor of Science Honours in Medical Science in Acupuncture		
	Bachelor of Science Honours in Nursing		
	Bachelor of Science Honours in Biomedical Science (Date of Recognition - April 08, 2016)		
	Bachelor of Science Honours in Psychology (Date of Recognition - April 08, 2016)		
	Bachelor of Management Honours in Human Resource (Date of Recognition - April 08, 2016)		
	Bachelor of Management Honours in Marketing (Date of Recognition - April 08, 2016)		
	Bachelor of Management Honours in Accounting (Date of Recognition - April 08, 2016)		
	Conditions : 1. KAATSU-Highly Advanced Medical Technology Training Centre (Pvt.) Limited (KIU) shall adhere the course duration to 4 years with 120 credit hours for Bachelor of Science Honours in Biomedical Science Programme.		

	<p>2. KAATSU-Highly Advanced Medical Technology Training Centre (Pvt.) Limited (KIU) shall adhere to have an English language test as an entry qualification for Bachelor of Science Honours in Psychology Programme.</p> <p>Note: * Prior to this, this degree programme was recognized as Bachelor of Information Technology on 17th October 2000.</p> <p>** This was recinded by the Gazette Extraordinary No. 1800/6 of March 05, 2013.</p>		
<p>Sri Lanka Institute of Information Technology (Guarantee) Limited.</p>	Master of Philosophy in Information Technology	25.02.2016	Private, incorporated under Companies Act
	Master of Philosophy in Software Engineering		
	Master of Philosophy in Computer Networks		
	Master of Philosophy in Cyber Security		
	Master of Philosophy in Civil Engineering		
	Master of Philosophy in Electrical and Electronics Engineering		
	Master of Philosophy in Mechanical Engineering		
	Master of Philosophy in Materials Engineering		
	Doctor of Philosophy in Information Technology		
	Doctor of Philosophy in Software Engineering		
	Doctor of Philosophy in Computer Networks		
	Doctor of Philosophy in Cyber Security		
	Doctor of Philosophy in Civil Engineering		
	Doctor of Philosophy in Electrical and Electronics Engineering		
Doctor of Philosophy in Mechanical Engineering			
Doctor of Philosophy in Materials Engineering			
<p>Aquinas College of Higher Studies</p>	Bachelor of Arts General Degree (BA)	07.02.2017	Aquinas College is registered with the Tertiary and vocational Education Commission of Sri Lanka in 1954
	Bachelor of Arts Degree in Religious studies (BA in Religious Studies)		
	Bachelor of Information Technology Degree (BIT)		
	Bachelor of Science Degree in Psychology and Counseling (BSc)		
	Bachelor of Science Honors in Agro Industry Management (BSc Hons (Agro Ind Mgt))		
<p>Institute of Technological Studies</p>	Bachelors Degrees in Computer Science and in Computer Systems Design	18.01.2017	Private Limited Liability Company Incorporated under Company Act

South Asian Institute of Technology and Medicine (Pvt) Ltd. (SAITM)	Bachelor of Science in Engineering in Mechatronics Engineering	28.03.2016	Established under Companies Act No. 07 of 2007
	Bachelor of Science in Engineering in Civil Engineering		
SLT Campus (Pvt) Ltd	Bachelor of Science Honours in Engineering in Electronics and Power Systems	02.12.2016	Established under Companies Act No.07 of 2007 and having Company number PV 101137
	Bachelor of Science Honours in Engineering in Electronics and Telecommunication		
	Bachelor of Science Honours in Engineering in Electronics and Engineering Management		
Professional Qualifications Recognized as Entry Qualifications for Postgraduate Degrees			
Institute	Qualification	Date of Recognition	Private / State
British Computer Society (BCS)	Professional Membership of BCS be accepted as an entry qualification for a Master's degree in IT	18.11.2010	
	Professional Graduate Diploma with Project of BCS be accepted as an entry qualification for a Master's degree in Computer Science		
	Professional Graduate Diploma of the BCS with Project and a minimum of two (2) years post qualification relevant experience be accepted as an entry qualification for a Postgraduate Diploma or a Master's Degree		
Sri Lanka Institute of Architects (SLIA)	Associate Membership of SLIA after completion of SLIA Part III	04.11.2010	Established under SLIA Act, No. 01 of 1976.

Annex 6 – Student Admissions and Districtwise Breakdown of Students

107108

Students Qualified vs. Students Admitted to State universities from 2006 – 2015

Year of GCE (A/L)	Number of Students Qualified for University	Year of Admission	Number of Students Admitted	Percentage of Qualified Students Admitted to University (%)	Number of Students Not Admitted to University
2006	119,955	2006/07	17,196	14.34	102,759
2007	121,421	2007/08	20,069	16.53	101,352
2008	130,236	2008/09	20,846	16.01	109,390
2009	125,284	2009/10	21,547	17.20	103,737
2010	142,516	2010/11	22,016	15.45	120,500
2011	141,411	2011/12 (b)	28,908	20.44	112,503
2012	144,816	2012/13 (c)	24,198	16.71	120,618
2013	143,740	2013/14	25,200	17.53	118,540
2014	149,572	2014/15	25,643	17.14	123,929
2015	155,550	2015/16(a)	29,055	18.68	126,495

(a) Excludes 28 students who were admitted under foreign intake and teachers intake.

(b) This shows the intake from GCE (A/L) 2011 which relevant to the year 2012 but admitted in 2013. The number admitted was increased due to a settlement of a litigation matter with regard to the methodology used to calculate the Z- score.

(c) This refers to the intake from GCE (A/L) 2012, which is relevant to the year 2013 but were admitted in 2014.

¹⁰⁷ Number of Students who Qualified by District: Department of Examinations - Sri Lanka. "Performance of All Candidates by District Arranged in Descending Order of Eligible Percentage." *GCE (A/L) Examination 2015 Performance of Candidates*, p9, <http://www.doenets.lk/exam/docs/comm/A.L%202015.pdf>. Accessed on 2nd Oct. 2017.

¹⁰⁸ Number of Students Admitted by District: University Grants Commission - Sri Lanka. "Undergraduate Admission by District: Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 - University Admissions, Table 02-03, http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed on 2nd Oct. 2017.

Districtwise Breakdown of Students – Academic Year 2015/16

District	Number of Students who Sat for the Examination	Number of Students Qualified for University	Percentage of Students Qualified (%)	Number of Students Admitted	Percentage of Qualified Students Admitted to University (%)	Percentage of Students Admitted out of the Total Admissions (%)
Galle	15,142	9,212	60.84	1,606	17.43	6.05%
Mullativu	1,253	740	59.06	157	21.22	0.59%
Matara	12,204	7,863	64.43	1,359	17.28	5.12%
Kalutara	13,927	8,434	60.56	1,491	17.68	5.62%
Colombo	29,267	17,931	61.27	3,605	20.10	13.58%
Jaffna	8,326	5,299	63.64	1,121	21.15	4.22%
Hambantota	9,406	5,943	63.18	933	15.70	3.52%
Batticaloa	5,863	3,483	59.41	717	20.59	2.70%
Vavuniya	2,052	1,242	60.53	238	19.16	0.90%
Anuradhapura	10,887	6,505	59.75	1,054	16.20	3.97%
Puttalam	7,448	4,607	61.86	827	17.95	3.12%
Ratnapura	13,875	8,935	64.40	1,465	16.40	5.52%
Kilinochchi	1,430	868	60.70	164	18.89	0.62%
Polonnaruwa	4,327	2,444	56.48	418	17.10	1.57%
Gampaha	23,032	14,026	60.90	2,475	17.65	9.33%
Ampara	8,470	4,736	55.91	859	18.14	3.24%
Trincomalee	4,859	2,775	57.11	510	18.38	1.92%
Kegalle	11,244	7,141	63.51	1,109	15.53	4.18%
Kurunegala	21,732	12,789	58.85	1,934	15.12	7.29%
Mannar	1,518	949	62.52	171	18.02	0.64%
Kandy	18,457	10,842	58.74	1,656	15.27	6.24%
Monaragala	5,779	3,665	63.42	495	13.51	1.87%
Badulla	11,649	7,070	60.69	1,063	15.04	4.01%
Nuwara Eliya	7,105	4,348	61.20	657	15.11	2.48%
Matale	5,939	3,600	60.62	457	12.69	1.72%
All Island	255,191	131,137	51.39	26,541	18.56	100.00%

Annex 7 – Districtwise Admissions by Stream for Academic year 2015/16

109

Medicine

District	Number Admitted To University		Total	Percentage of Students with a Merit Score	Percentage of Students with a Merit Score out of the total	Percentage admitted out of the total
	Merit	Non Merit				
Colombo	137	77	214	64%	28%	17%
Matara	35	27	62	56%	7%	5%
Galle	45	35	80	56%	9%	6%
Vauniya	8	7	15	53%	2%	1%
Jaffna	27	29	56	48%	5%	5%
Hambantota	20	25	45	44%	4%	4%
Kandy	35	46	81	43%	7%	7%
Batticaloa	15	21	36	42%	3%	3%
Kurunegla	31	54	85	36%	6%	7%
Kalutara	23	41	64	36%	5%	5%
Gampaha	38	76	114	33%	8%	9%
Trincomalee	8	16	24	33%	2%	2%
Kegalle	12	28	40	30%	2%	3%
Rathnapura	17	45	62	27%	3%	5%
Ampara	9	27	36	25%	2%	3%
Puttalam	9	31	40	23%	2%	3%
Matale	4	16	20	20%	1%	2%
Badulla	8	33	41	20%	2%	3%
Anuradhapura	8	35	43	19%	2%	3%
Mannar	1	5	6	17%	0%	0%
Polonnaruwa	2	17	19	11%	0.40%	2%
Monagragala	1	19	20	5%	0.202%	2%

¹⁰⁹ University Grants Commission - Sri Lanka. "Undergraduate Admissions By Academic Programme And Admission Policy: Academic Year 2015/2016." *Sri Lanka University Statistics 2016*, Chapter 2 -University Admissions, Table 02-04. http://www.ugc.ac.lk/downloads/statistics/stat_2016/Chapter%202.pdf. Accessed 2nd Oct. 2017.

Nuwara Eliya	1	29	30	3%	0%	2%
Kilinochi	0	5	5	0%	0%	0%
Mullativu	0	4	4	0%	0%	0%
Total	494	748	1242			

Engineering

District	Number Admitted To University		Total	Percentage of Students with a Merit Score	Percentage of Students with a Merit Score out of the total	Percentage admitted out of the total
	Merit	Non Merit				
Matara	71	38	109	65%	10%	6%
Colombo	193	109	302	64%	28%	17%
Jaffna	60	35	95	63%	9%	5%
Galle	73	50	123	59%	11%	7%
Hambantota	28	35	63	44%	4%	4%
Kandy	44	65	109	40%	6%	6%
Kurunegla	50	76	126	40%	7%	7%
Gampaha	52	107	159	33%	8%	9%
Badulla	19	46	65	29%	3%	4%
Kalutara	23	57	80	29%	3%	5%
Batticaloa	10	30	40	25%	1%	2%
Kegalle	11	39	50	22%	2%	3%
Rathnapura	17	62	79	22%	2%	5%
Vauniya	3	11	14	21%	0%	1%
Trincomalee	5	23	28	18%	1%	2%
Anuradhapura	9	50	59	15%	1%	3%
Puttalam	7	43	50	14%	1%	3%
Matale	3	24	27	11%	0%	2%
Nuwara Eliya	5	41	46	11%	1%	3%
Monagrakala	3	27	30	10%	0%	2%

Ampara	4	37	41	10%	1%	2%
Polonnaruwa	1	24	25	4%	0%	1%
Kilinochi	0	8	8	0%	0%	0%
Mannar	0	7	7	0%	0%	0%
Mullativu	0	7	7	0%	0%	0%
Total	691	1051	1742			

Arts

District	Number Admitted To University		Total	Percentage of Students with a Merit Score	Percentage of Students with a Merit Score out of the total	Percentage admitted out of the total
	Merit	Non Merit				
Hambantota	263	13	276	95%	4%	4%
Galle	394	24	418	94%	6%	6%
Kalutara	383	25	408	94%	6%	6%
Kurunegla	566	37	603	94%	9%	9%
Kegalle	347	24	371	94%	6%	5%
Anuradhapura	331	23	354	94%	5%	5%
Puttalam	232	18	250	93%	4%	4%
Monagragala	144	12	156	92%	2%	2%
Rathnapura	346	32	378	92%	6%	5%
Gampaha	508	49	557	91%	8%	8%
Matara	299	29	328	91%	5%	5%
Polonnaruwa	88	10	98	90%	1%	1%
Badulla	275	33	308	89%	4%	4%
Kandy	340	42	382	89%	5%	6%
Jaffna	306	39	345	89%	5%	5%
Batticaloa	259	38	297	87%	4%	4%

Trincomalee	177	27	204	87%	3%	3%
Matale	101	16	117	86%	2%	2%
Colombo	320	53	373	86%	5%	5%
Ampara	278	47	325	86%	4%	5%
Nuwara Eliya	133	27	160	83%	2%	2%
Mullativu	46	10	56	82%	1%	1%
Vauniya	54	13	67	81%	1%	1%
Kilinochi	38	12	50	76%	1%	1%
Mannar	28	11	39	72%	0%	1%
Total	6256	664	6920			

Management and Commerce

District	Number Admitted To University		Total	Percentage of Students with a Merit Score	Percentage of Students with a Merit Score out of the total	Percentage admitted out of the total
	Merit	Non Merit				
Colombo	616	322	938	66%	31%	18%
Matara	99	114	213	46%	5%	4%
Kalutara	145	167	312	46%	7%	6%
Gampaha	256	317	573	45%	13%	11%
Rathnapura	137	182	319	43%	7%	6%
Galle	111	151	262	42%	6%	5%
Kegalle	71	116	187	38%	4%	4%
Matale	106	191	297	36%	5%	6%
Kurunegla	97	224	321	30%	5%	6%
Anuradhapura	56	147	203	28%	3%	4%
Badulla	52	139	191	27%	3%	4%
Hambantota	36	103	139	26%	2%	3%
Monragala	26	79	105	25%	1%	2%

Jaffna	30	104	134	22%	2%	3%
Mannar	6	23	29	21%	0%	1%
Vauniya	8	34	42	19%	0%	1%
Kandy	16	69	85	19%	1%	2%
Ampara	25	111	136	18%	1%	3%
Puttalam	28	128	156	18%	1%	3%
Polonnaruwa	15	71	86	17%	1%	2%
Nuwara Eliya	24	120	144	17%	1%	3%
Trincomalee	9	67	76	12%	0%	1%
Batticaloa	10	87	97	10%	1%	2%
Kilinochi	0	25	25	0%	0%	0%
Mullativu	0	20	20	0%	0%	0%
Total	1979	3111	5090			

Annex 8 – Government Expenditure on Tertiary Education (% GDP)

The following table shows government expenditure on tertiary education as a percentage of GDP in Middle Income Countries.¹¹⁰

The rows highlighted in Green represent the Lower Middle Income Countries

The rows highlighted in Blue represent the Higher Middle Income Countries

Country Name	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Sri Lanka	-	-	-	-	0.37	0.28	0.32	0.28	0.34	-
Angola	-	0.18	-	-	-	-	-	-	-	-
Argentina	0.83	0.56	0.69	0.77	0.92	0.91	0.97	1.02	1.08	-
Armenia	-	-	-	0.36	0.36	0.38	0.35	0.28	0.27	0.31
Azerbaijan	0.23	0.21	0.2	0.28	0.45	0.39	0.36	-	-	-
Bangladesh	0.21	-	0.25	0.27	0.26	0.26	0.23	-	-	-
Belarus	-	1.5	1.04	-	0.91	0.93	0.84	0.92	0.91	0.84
Belize	0.33	-	-	0.52	0.67	0.57	-	0.59	0.84	-
Bhutan	-	1.0	-	0.93	0.61	0.61	0.51	-	1.02	0.61
Bolivia	1.58	-	-	2.05	2.4	2.27	1.98	1.61	1.69	1.91
Brazil	0.87	0.85	0.81	0.84	0.87	0.93	0.96	0.97	-	-
Bulgaria	-	0.69	0.6	0.82	0.89	0.58	0.61	0.63	-	-
Cabo Verde	-	0.59	-	0.62	0.74	-	0.84	-	0.8	-
Cambodia	-	-	-	-	-	0.38	-	0.07	0.12	-
Cameroon	-	0.39	0.36	0.26	0.3	0.3	0.46	0.23	0.31	-
Colombia	0.7	0.55	-	0.86	0.93	1.07	0.92	0.96	0.87	0.97
Congo, Rep.	-	0.48	-	-	-	0.68	-	-	0.71	-
Costa Rica	0.85	-	0.99	1.05	1.19	1.25	1.3	1.35	1.42	1.52
Cote d'Ivoire	0.82	0.82	0.9	-	-	-	-	-	-	0.99
Croatia	0.92	-	0.79	0.94	0.83	0.78	0.92	-	-	-
Ecuador	0.06	-	-	-	-	1.08	1.15	1.11	-	-
Ghana	-	1.64	1.44	1.49	1.27	1.44	1.07	1.47	1.2	-
Guatemala	-	-	0.33	0.34	-	0.32	0.36	0.38	0.35	-
Honduras	-	-	-	-	-	0.89	-	0.97	1.09	0.99
India	0.86	0.61	-	-	1.17	1.2	1.29	1.23	-	-
Indonesia	-	-	0.39	0.32	0.43	0.45	0.5	0.59	0.55	0.5
Iran, Islamic Rep.	-	0.64	0.96	0.84	0.88	0.83	1	0.89	0.72	0.84
Jamaica	-	1.02	1.1	0.97	1.26	1.39	1.24	1.07	1.1	1.05
Kazakhstan	-	0.28	0.39	0.36	0.4	-	-	-	0.45	0.39

¹¹⁰ The World Bank. "Databank: Education Statistics – All Indicators."

<http://databank.worldbank.org/data/reports.aspx?source=education-statistics-~-all-indicators>. Accessed 02 Oct. 2017.

Kyrgyz Republic	0.52	0.93	1.03	0.97	0.97	0.9	-	0.89	0.87	-
Lebanon	-	0.77	0.66	0.59	0.47	0.44	0.44	0.67	0.74	-
Malaysia	1.91	-	1.44	-	2.15	1.71	2.13	-	2.07	-
Maldives	-	-	-	-	-	-	0.40	0.49	-	-
Mauritania	-	-	-	0.59	-	0.68	0.39	0.37	0.38	-
Mauritius	-	0.48	-	0.33	0.4	0.34	0.27	0.27	0.29	0.35
Mexico	-	0.86	0.87	0.92	1.05	1.02	0.93	-	-	-
Moldova	-	-	1.62	1.54	1.72	1.64	1.56	1.47	-	1.29
Peru	-	0.31	0.36	0.45	0.45	0.39	0.47	0.53	0.55	0.52
Philippines	0.45	0.32	0.28	0.28	0.32	-	-	-	-	-
Romania	-	0.8	1.11	-	1.18	0.98	0.84	0.77	0.72	-
Russian Federation	0.47	0.79	-	0.95	-	-	-	0.88	-	-
Serbia	-	-	1.17	1.28	1.31	1.33	1.31	1.29	-	-
South Africa	0.79	0.76	0.65	0.63	0.66	0.68	0.7	0.76	0.74	0.74
Swaziland	2.02	1.78	-	1.62	1.54	1.15	1.11	-	-	-
Tajikistan	-	0.26	0.26	0.49	0.49	0.4	0.33	0.45	0.46	-
Thailand	1.07	0.85	-	0.74	0.75	0.58	0.72	0.65	0.64	-
Timor-Leste	-	-	-	-	0.93	1.09	1.85	0.91	0.24	0.32
Tunisia	1.34	1.56	1.59	1.57	1.76	1.76	-	1.75	1.76	1.62
Ukraine	1.34	1.79	1.85	2.03	2.37	-	2.12	2.17	2.13	-

Annex 9 – Government Expenditure on Tertiary Education (%Total Expenditure)

The following table shows government expenditure on tertiary education as a percentage of total government expenditure in Middle Income Countries.¹¹¹

*The rows highlighted in **Green** represents the Lower Middle Income Countries*

*The rows highlighted in **Blue** represents the Higher Middle Income Countries*

Country Name	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Sri Lanka	-	-	-	-	1.50	1.41	1.66	1.64	2.07	-
Argentina	2.94	2.57	2.81	2.94	3.13	3.09	3.06	3.00	3.05	-
Armenia	-	-	-	1.61	1.26	1.45	1.42	1.24	1.15	1.28
Azerbaijan	1.11	0.91	0.78	0.94	1.33	1.23	1.07	-	-	-
Bangladesh	2.07	-	2.08	2.36	1.89	2.06	1.82	-	-	-
Belarus	-	3.29	2.17	-	1.96	2.20	2.43	2.36	2.16	2.10
Belize	1.05	-	-	1.80	2.38	2.00	-	2.04	3.11	-
Bhutan	-	3.21	-	2.91	1.86	1.93	1.25	-	2.94	1.84
Bolivia	5.39	-	-	5.80	6.71	7.20	5.60	4.46	4.40	4.42
Brazil	2.53	2.14	2.14	2.24	2.35	2.39	2.56	2.55	-	-
Bulgaria	-	2.04	1.83	2.45	2.62	1.65	1.88	1.90	-	-
Cabo Verde	-	1.57	-	2.10	2.26	-	2.51	-	2.37	-
Cambodia	-	-	-	-	-	1.90	-	0.35	0.60	-
Cameroon	-	2.70	2.29	1.38	1.71	1.70	2.24	1.18	1.41	-
Colombia	2.64	2.15	-	3.24	3.15	3.63	3.20	3.41	3.00	3.29
Costa Rica	3.66	-	4.40	4.35	4.44	4.21	4.52	4.63	4.68	5.01
Cote d'Ivoire	4.59	4.37	4.59	-	-	-	-	-	-	4.35
Croatia	2.06	-	1.76	2.11	1.75	1.66	1.90	-	-	-
Ecuador	0.26	-	-	-	-	3.12	2.91	2.76	-	-
El Salvador	0.93	1.63	1.67	-	1.94	1.98	1.33	-	-	-
Fiji	2.95	-	-	-	-	-	1.93	-	3.17	-
Ghana	-	5.17	6.28	6.10	5.41	5.51	4.04	6.98	4.31	-
Guatemala	-	-	2.32	2.52	-	2.19	2.52	2.71	2.54	-
Guyana	-	-	0.68	-	0.76	0.63	0.46	0.52	-	-
Honduras	-	-	-	-	-	3.30	-	3.65	3.56	3.44
India	3.55	2.26	-	-	3.94	4.24	4.74	4.52	-	-
Indonesia	-	-	1.91	1.50	2.35	2.67	2.81	3.11	2.89	2.64
Iran, Islamic Rep.	-	3.43	4.05	4.25	3.97	4.02	5.21	4.71	4.97	5.57
Jamaica	-	3.15	3.43	3.00	3.56	3.52	3.69	3.30	3.62	3.81
Kazakhstan	-	1.26	1.66	1.90	1.71	-	-	-	2.22	1.77
Kyrgyz Republic	1.71	3.16	3.23	3.32	2.83	2.43	-	2.19	2.27	-
Lebanon	-	2.42	1.86	1.70	1.47	1.50	1.52	2.18	2.46	-
Malaysia	6.86	-	5.33	-	6.64	6.34	7.75	-	7.30	-
Maldives	-	-	-	-	-	-	1.17	1.43	-	-

¹¹¹ Ibid.

Mauritania	-	-	-	2.32	-	3.01	1.76	1.23	1.32	-
Mauritius	-	1.80	-	1.22	1.46	1.36	1.10	1.17	1.19	1.48
Mexico	-	3.87	3.74	3.55	3.69	3.82	3.45	-	-	-
Moldova	-	-	3.80	3.70	3.79	4.02	3.99	3.66	-	3.24
Pakistan	-	-	-	-	-	-	-	-	3.71	2.52
Panama	5.03	-	-	-	-	-	2.90	2.95	-	-
Paraguay	3.73	-	3.70	-	-	3.47	7.78	4.39	-	-
Peru	-	1.53	1.93	2.28	2.10	1.87	2.36	2.60	2.56	2.31
Romania	-	2.51	3.16	-	3.12	2.60	2.31	2.21	2.11	-
Russian Federation	1.44	2.52	-	2.76	-	-	-	2.36	-	-
Sao Tome and Principe	-	-	-	-	-	-	-	2.21	1.55	1.18
Serbia	-	-	2.69	2.96	3.02	3.06	3.10	2.80	-	-
South Africa	-	3.00	2.41	2.33	2.29	2.14	2.22	2.46	2.38	2.33
Swaziland	6.89	5.00	-	4.70	4.23	3.03	2.87	-	-	-
Tajikistan	-	1.13	0.92	1.82	1.71	1.54	1.22	1.83	1.65	-
Thailand	5.76	4.46	-	3.85	3.51	2.68	3.38	3.08	2.93	-
Timor-Leste	-	-	-	-	1.26	1.34	1.90	0.95	0.29	0.32
Tunisia	5.33	6.44	6.50	6.31	6.83	7.35	-	6.08	5.89	5.76
Ukraine	3.66	4.05	4.22	4.27	4.88	-	4.64	4.43	4.42	-

Annex 10 – Institutional and Programme Reviews in State Universities

By law, the UGC is responsible for the maintenance of academic standards in Higher Educational Institutions (Section 3(3) of 1978 Act). In addition, the UGC has power to make Ordinances for the establishment and maintenance of standards of instruction in higher educational institutions for grant of degrees, diplomas and other academic distinctions (Section 18(2)(d)).

The UGC set up and currently oversees the Quality Assurance and Accreditation Council (QAAC), which is the body responsible for reviewing all state universities in Sri Lanka.

There are two types of review that are conducted in state universities: 1) Institutional Review and 2) Programme Review, which was formally known as Subject Review.

Institutional Review (IR)

IR “analyses and tests the effectiveness of an institution’s processes for managing and assuring the quality of academic activities undertaken by the University/HEI”.¹¹²

The review aspects examined are:

- Governance and Management;
- Curriculum Design and Development;
- Teaching and Learning;
- Learning Resources, Student Support and Progression;
- Student Assessment and Awards;
- Strength and Quality of Staff;
- Postgraduate Studies, Research and Innovation;
- Community Engagement, Consultancy and Outreach;
- Distance Education; and
- Quality Assurance.

The whole review process is outlined in the *Manual for Institutional Review of Sri Lankan Universities and Higher Education Institutions* developed by the UGC.

Programme Review (PR)

PR “evaluates the quality of a student’s learning experience at the programme level. It is about management and assurance of quality at the subject/programme level, rather than at the institutional level. Subject review refers to evaluation of a subject/department as a whole, while programme review refers to evaluation of a programme of study offered by the department singly or jointly”.¹¹³

¹¹² University Grants Commission. *Manual for Institutional Review of Sri Lankan Universities and Higher Education Institutions*. Higher Education for the Twenty First Century (HETC) Project (World Bank), April 2015, p22. http://www.ugc.ac.lk/attachments/1519_IR%20Manual%20-%20Printed%20Version%207th%20May.pdf. Accessed 2nd July 2017.

¹¹³ University Grants Commission. *Manual for Review of Undergraduate Study Programmes of Sri Lankan Universities and Higher Education Institutions*. Higher Education for the Twenty First Century (HETC)

Under PR, the 8 review aspects are:

- Programme Management;
- Programme Design and Development;
- Human and Physical Resources;
- Course/Module Design and Development;
- Teaching and Learning;
- Learning Environment, Student Support and Progression;
- Students Assessment and Awards; and
- Innovative and Healthy Practices.

The whole review process is outlined in the *Manual for Subject Review of Undergraduate Study Programmes of Sri Lankan Universities and Higher Education Institutions* developed by the UGC.

For both types of review, the faculty under review completes a Self-Evaluation Report (SER), which it submits to the QAAC. After a desk evaluation of the self-evaluation, the QAAC sends a team of reviewers on a site visit to the university/faculty to verify the information in the self-evaluation. Next, a peer review team report is compiled and submitted to the QAAC. Once the QAAC then sends a copy of this report to the university, the university is given the opportunity to discuss and respond to the content of the report. Following this, the QAAC determines whether any changes are to be made to the report. Finally, the report is publicised. The feedback in the report is not binding and it is up to the Internal Quality Assurance Unit of each university to ensure that recommendations are implemented.¹¹⁴

In carrying out faculty/programme evaluations, the following documentation is used.

- 1) Sri Lanka Qualifications Framework (SLFQ) – a framework for all higher education qualifications (both public and private) offered in the country. It indicates descriptors for each standard of education from A'Levels to PhD programs as well as vocational training qualifications. This document is used, especially in PR, to assess whether or not a department's programs are producing graduates that meet the expected outcomes of a person in that educational course of study.¹¹⁵
- 2) Subject Benchmark Statements – statements of learning outcomes and standards for each discipline. Benchmarks are formulated by members of the relevant subject community. These statements are also used in assessing programmes in different departments.¹¹⁶

In addition to external quality assurance, 13 of the 14 state universities also have internal quality assurance mechanisms. Each university is required to have an Internal

Project (World Bank), December 2015. <https://www.pdn.ac.lk/centers/iqau/upload/PR-manual.pdf>. Accessed on 2nd July 2017.

¹¹⁴ The UGC is planning to conduct IR and PRs for all state universities and Higher Educational Institutes commencing from 01st January 2017 – as per Circular UGC/QAAC/IR/01. <http://www.eugc.ac.lk/qaa/wp-content/uploads/2017/03/1.-Guidelines-for-Conducting-IRs-and-PRs.pdf>.

¹¹⁵ University Grants Commission. *Sri Lanka Qualifications Framework*. Higher Education for the Twenty First Century (HETC) Project (World Bank), December 2015, "http://www.eugc.ac.lk/qaa/wp-content/uploads/2016/07/SLQF_Book_2016_new.pdf". Accessed on 3rd July 2017.

¹¹⁶ Quality Assurance and Accreditation Council - University Grants Commission. "Subject Benchmarking." <http://www.eugc.ac.lk/qaa/index.php/subject-of-benchmarking/>. Accessed on 3rd July 2017.

Quality Assurance Unit (IQAU), which has representation from all faculties. Aside from its administrative duties in preparing for external quality reviews, its purpose is to perform its own quality assurance in order to enable self-improvement and sustainable quality enhancement.¹¹⁷ A manual has been developed outlining the need; roles and responsibilities; and laws on internal quality assurance.¹¹⁸

¹¹⁷ Quality Assurance and Accreditation Council - University Grants Commission. "What is IQAU." <http://www.eugc.ac.lk/qaa/index.php/139-2/>. Accessed on 4th July 2017.

¹¹⁸ Internal Quality Assurance Manual for Sri Lankan Universities, February 2013, <https://www.pdn.ac.lk/centers/iqau/upload/Internal-QA-Manual-2013.pdf>. Accessed on 5th July 2017.

Annex 11 – Global Competitiveness Index Statistics - Global Comparison

Statistics on Education

Country	Primary Education						Higher Education																R&D and Innovation			
	Quality of Primary Education		Primary Education Enrollment Rate Net%		Overall		Quantity of Education						Quality of the education										Quality of scientific research institutions		University-industry collaboration in R&D	
							Secondary Education Enrollment Rate Gross %		Tertiary Education Enrollment Rate Gross %		Overall		Quality of the education system		Quality of math and science education		Quality of management schools		Internet access in schools		Overall					
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
Albania	22	5.1	63	95.5	27	5.8	61	96.4	41	62.7	41	6.1	34	4.5	37	4.7	60	4.3	30	5.2	36	4.7	130	2.5	104	3
Algeria	102	3.3	40	97.3	73	5.1	46	99.9	78	34.6	71	4.9	85	3.4	99	3.5	127	3.3	124	3.1	118	3.3	99	3.4	120	2.7
Argentina	95	3.4	13	99	67	5.2	29	106.3	16	80	16	6.8	93	3.3	111	3.2	39	4.7	78	4.1	83	3.8	33	4.6	71	3.4
Armenia	66	4.1	125	84.1	113	4.3	60	96.6	64	44.3	61	5.3	68	3.7	42	4.6	116	3.6	69	4.2	70	4	100	3.4	92	3.2
Australia	14	5.5	37	97.4	12	6.2	3	137.6	8	86.6	1	7	14	5.2	24	4.9	17	5.4	6	6	14	5.4	12	5.7	33	4.3
Austria	29	4.9	26	98.1	20	5.9	52	99.3	15	80	15	6.8	32	4.5	30	4.8	30	5.1	26	5.3	27	4.9	22	5.3	15	4.8
Azerbaijan	81	3.8	68	95.2	71	5.1	32	102.8	94	23.2	84	4.5	72	3.7	80	3.9	89	3.9	56	4.5	71	4	68	3.9	54	3.6
Bahrain	36	4.7	47	96.9	31	5.8	51	99.4	75	36.8	70	5	25	4.6	29	4.8	34	4.9	39	5	30	4.8	75	3.7	44	3.7
Bangladesh	109	3.1	103	90	112	4.3	110	58.3	109	13.4	111	2.3	84	3.5	106	3.4	110	3.7	120	3.2	109	3.4	120	2.9	132	2.5
Barbados	10	5.6	97	91	36	5.7	20	109.2	36	65.4	35	6.2	22	4.7	20	5.2	36	4.8	54	4.5	29	4.8	76	3.7	83	3.3
Belgium	3	6.2	17	98.8	2	6.6	1	164.8	22	73.3	22	6.5	4	5.6	3	6	3	6.1	23	5.4	5	5.8	6	5.9	9	5.3



Benin	120	2.9	62	95.9	85	4.8	114	54.4	108	15.4	113	2.2	131	2.4	102	3.5	103	3.8	122	3.2	122	3.2	78	3.7	98	3.1
Bhutan	43	4.6	121	85.6	91	4.7	90	84.2	113	10.9	99	3.7	45	4.3	67	4.1	75	4.1	89	3.8	66	4.1	117	3	106	3
Bolivia	121	2.8	78	94.1	101	4.6	88	84.7	74	38.4	76	4.8	120	2.8	118	3	117	3.5	119	3.3	125	3.1	131	2.4	136	2.4
Bosnia and Herzegovina	80	3.8	35	97.5	55	5.4	78	88.7	58	47.6	60	5.4	130	2.5	92	3.7	124	3.4	77	4.1	110	3.4	106	3.2	117	2.8
Botswana	73	4	98	91	82	4.9	91	83.9	89	27.5	91	4.3	66	3.7	87	3.8	107	3.7	106	3.6	92	3.7	96	3.5	72	3.4
Brazil	127	2.6	102	90.4	120	4.1	38	101.9	60	46.4	57	5.4	128	2.6	129	2.6	99	3.8	93	3.8	124	3.2	86	3.6	90	3.2
Brunei Darussalam	26	5	39	97.3	21	5.9	54	99.1	80	31.7	74	4.8	36	4.4	34	4.7	54	4.4	46	4.8	38	4.6	79	3.7	84	3.3
Bulgaria	67	4.1	72	94.9	63	5.3	41	100.9	26	70.8	26	6.4	91	3.3	75	4	111	3.6	52	4.6	81	3.9	64	3.9	74	3.4
Burundi	125	2.7	64	95.4	95	4.6	130	37.9	130	4.4	130	1.2	125	2.7	94	3.6	114	3.6	136	1.9	129	2.9	136	2.2	115	2.8
Cambodia	110	3.1	74	94.7	88	4.7	119	45.1	104	15.9	118	1.7	87	3.4	113	3.2	128	3.2	108	3.6	114	3.3	123	2.8	102	3.1
Cameroon	61	4.2	94	91.6	76	5.0	113	56.4	111	11.9	114	2.2	79	3.6	63	4.3	47	4.6	94	3.8	69	4	88	3.6	91	3.2
Canada	13	5.5	9	99.5	8	6.3	18	109.9	45	58.9	45	5.9	15	5.2	13	5.3	8	5.7	15	5.8	11	5.5	17	5.6	23	4.6
Cape Verde	60	4.2	24	98.2	45	5.6	69	92.6	95	23	85	4.5	58	4	71	4	62	4.3	59	4.5	60	4.2	93	3.5	95	3.2
Chad	129	2.5	124	84.4	127	3.5	138	22.4	134	3.4	134	1	129	2.5	121	2.8	131	3.1	138	1.7	135	2.5	127	2.6	128	2.6
Chile	111	3	85	93	100	4.6	44	100.4	6	86.6	1	7	88	3.4	108	3.2	26	5.2	60	4.4	67	4.1	43	4.3	64	3.5
China	47	4.5	1	100	32	5.8	65	94.3	69	39.4	65	5.1	43	4.3	50	4.5	61	4.3	50	4.6	47	4.4	40	4.5	30	4.3
Colombia	101	3.3	104	89.8	109	4.4	56	98.8	56	51.3	55	5.6	98	3.3	112	3.2	66	4.2	76	4.1	94	3.7	69	3.8	48	3.7
Congo, Democratic Rep.	86	3.6	115	87	114	4.3	122	43.5	125	6.6	122	1.5	113	3	84	3.8	108	3.7	130	2.9	112	3.4	107	3.2	113	2.9
Costa Rica	41	4.7	58	96.1	39	5.7	10	120.3	53	53	53	5.7	27	4.6	59	4.4	28	5.2	47	4.7	33	4.7	37	4.6	65	3.5



Côte d'Ivoire	69	4.1	131	74.7	129	3.4	125	40.1	119	8.7	125	1.3	49	4.1	43	4.6	51	4.5	98	3.7	56	4.2	45	4.2	86	3.3
Croatia	53	4.3	108	88.7	83	4.8	55	99	27	69.5	27	6.4	105	3.1	39	4.6	83	4	81	4	72	4	61	4	114	2.9
Cyprus	55	4.3	48	96.9	49	5.5	50	99.4	52	53.1	52	5.7	52	4.1	66	4.1	101	3.8	62	4.4	63	4.1	73	3.8	76	3.4
Czech Republic	35	4.8	25	98.1	25	5.9	30	105.1	32	66	32	6.2	59	3.9	56	4.4	64	4.2	25	5.3	43	4.5	30	4.8	47	3.7
Denmark	31	4.8	27	98.1	23	5.9	7	129.9	13	81.5	13	6.9	16	5.1	16	5.2	12	5.6	13	5.9	13	5.4	16	5.6	14	4.8
Dominican Republic	123	2.8	126	83.6	125	3.6	96	78.4	59	47.5	73	4.8	124	2.7	131	2.5	86	3.9	101	3.6	123	3.2	124	2.8	111	2.9
Ecuador	83	3.7	75	94.7	74	5.1	31	104.2	68	40.5	63	5.2	81	3.6	90	3.7	69	4.2	68	4.2	77	3.9	101	3.4	101	3.1
Egypt	134	2.1	28	98	102	4.6	85	86.1	81	31.7	82	4.6	135	2.1	130	2.6	138	2.5	133	2.6	136	2.5	128	2.6	137	2.4
El Salvador	128	2.5	83	93.1	111	4.3	94	81.1	86	28.9	94	4.2	133	2.3	127	2.6	118	3.5	118	3.3	128	2.9	129	2.6	118	2.8
Estonia	8	5.7	41	97.3	7	6.3	23	108.6	24	72.9	24	6.5	26	4.6	11	5.4	31	4.9	12	5.9	21	5.2	21	5.3	35	4.1
Ethiopia	107	3.1	120	85.8	121	4.0	133	36.2	121	8.1	133	1.1	83	3.5	97	3.5	120	3.5	99	3.7	103	3.6	70	3.8	39	3.8
Finland	1	6.7	10	99.4	1	6.9	2	145.5	4	88.7	1	7	3	5.7	2	6.2	18	5.4	18	5.8	4	5.8	8	5.8	2	5.7
France	28	4.9	16	98.8	19	5.9	17	110.6	37	64.4	36	6.2	33	4.5	12	5.3	15	5.5	40	4.9	24	5	9	5.8	32	4.3
Gabon	87	3.6	67	95.2	75	5.0	115	53.3	120	8.4	115	2	116	2.9	95	3.6	98	3.8	121	3.2	111	3.4	109	3.2	130	2.6
Gambia, The	62	4.2	135	67.9	133	2.8	111	57.5	135	3.1	112	2.2	40	4.3	104	3.4	68	4.2	96	3.7	78	3.9	113	3.1	127	2.6
Georgia	93	3.4	14	99	66	5.2	49	99.4	71	39.2	66	5.1	95	3.3	100	3.5	97	3.8	73	4.2	95	3.7	118	3	119	2.7
Germany	20	5.2	18	98.6	14	6.1	33	102.4	35	65.5	34	6.2	13	5.3	17	5.2	23	5.3	37	5	20	5.2	11	5.8	8	5.4
Ghana	97	3.4	95	91.1	99	4.6	100	71	107	15.6	105	3.1	60	3.9	93	3.7	53	4.5	95	3.7	74	3.9	81	3.7	88	3.3
Greece	82	3.8	43	97.2	59	5.3	25	108.2	1	110.2	1	7	108	3	62	4.3	80	4	97	3.7	85	3.8	67	3.9	124	2.7
Guatemala	130	2.5	117	86.4	122	3.7	109	63.5	101	18.3	107	2.8	126	2.6	134	2.4	48	4.5	92	3.8	116	3.3	94	3.5	59	3.5



Honduras	104	3.1	79	94	90	4.7	104	68.4	97	21.2	104	3.2	99	3.2	109	3.2	96	3.8	83	4	102	3.6	115	3.1	99	3.1
Hong Kong SAR	27	5	76	94.6	37	5.7	42	100.6	28	68.8	28	6.3	20	4.8	8	5.5	10	5.6	8	6	10	5.5	31	4.8	22	4.6
Hungary	96	3.4	99	90.8	103	4.6	27	107	51	53.2	51	5.7	114	2.9	83	3.8	73	4.1	90	3.8	96	3.7	39	4.5	109	2.9
Iceland	15	5.5	19	98.6	9	6.2	15	111.2	12	82.2	12	6.9	11	5.3	23	5	20	5.4	2	6.3	8	5.5	20	5.4	16	4.8
India	40	4.7	92	92.3	57	5.3	102	68.9	93	23.9	103	3.3	29	4.5	44	4.6	43	4.6	74	4.2	44	4.5	36	4.6	24	4.5
Indonesia	54	4.3	106	89.7	81	4.9	92	82.5	82	31.1	87	4.4	39	4.4	53	4.4	49	4.5	43	4.9	39	4.5	41	4.4	28	4.4
Iran, Islamic Rep.	65	4.1	11	99.2	47	5.6	79	88.4	33	66	38	6.1	97	3.3	48	4.6	90	3.9	113	3.5	84	3.8	66	3.9	105	3
Ireland	7	5.8	73	94.9	15	6.1	9	126.1	23	73.2	23	6.5	6	5.5	21	5.1	13	5.5	36	5	17	5.3	15	5.6	13	5.1
Israel	45	4.5	50	96.7	38	5.7	39	101.9	31	66.2	31	6.2	24	4.7	35	4.7	22	5.4	27	5.3	25	5	3	6.2	3	5.6
Italy	39	4.7	34	97.6	28	5.8	35	102.4	39	63.5	39	6.1	63	3.8	47	4.6	27	5.2	80	4.1	50	4.4	32	4.7	45	3.7
Jamaica	59	4.2	29	98	44	5.6	103	68.8	88	27.8	100	3.5	61	3.8	88	3.7	37	4.8	53	4.6	58	4.2	52	4.1	67	3.4
Japan	11	5.6	3	100	6	6.3	36	101.9	42	62.4	42	6.1	37	4.4	18	5.2	58	4.4	38	5	31	4.7	13	5.7	18	4.8
Jordan	56	4.2	111	87.5	92	4.7	89	84.3	57	47.6	64	5.2	28	4.6	61	4.4	57	4.4	55	4.5	45	4.5	57	4	38	3.8
Kazakhstan	70	4.1	118	86.3	107	4.5	21	109.1	61	46	58	5.4	73	3.7	69	4.1	106	3.7	29	5.2	61	4.2	63	3.9	66	3.5
Kenya	76	3.9	122	84.9	115	4.3	106	67.6	132	4	108	2.8	35	4.4	68	4.1	45	4.6	87	3.9	55	4.3	49	4.2	26	4.5
Korea, Rep.	37	4.7	54	96.3	35	5.7	58	97.7	2	95.3	1	7	75	3.6	36	4.7	63	4.3	20	5.5	40	4.5	34	4.6	29	4.4
Kuwait	103	3.2	88	92.9	93	4.7	68	93.6	90	27	81	4.6	86	3.4	105	3.4	92	3.8	91	3.8	99	3.6	104	3.3	125	2.6
Kyrgyz Republic	116	3	107	89.7	117	4.2	74	90.8	62	45.9	59	5.4	106	3.1	117	3	134	2.9	85	3.9	121	3.2	121	2.9	121	2.7
Lao PDR	89	3.5	69	95.1	77	5.0	112	57.2	102	17.3	110	2.4	54	4.1	91	3.7	85	4	103	3.6	82	3.8	102	3.4	62	3.5
Latvia	34	4.8	53	96.4	34	5.7	13	115.4	30	67	30	6.3	64	3.8	55	4.4	44	4.6	31	5.2	41	4.5	48	4.2	77	3.3



Lebanon	16	5.4	116	86.6	69	5.2	105	68.2	65	42.8	97	4.1	18	5.1	6	5.7	9	5.7	86	3.9	23	5.1	91	3.5	50	3.6
Lesotho	98	3.3	129	80.2	126	3.6	116	52.2	117	9.8	116	1.9	62	3.8	126	2.6	71	4.1	117	3.4	108	3.5	89	3.6	116	2.8
Liberia	108	3.1	138	37.7	137	2.1	131	37.9	112	11.6	131	1.2	94	3.3	103	3.4	123	3.4	126	3.1	119	3.3	116	3	43	3.7
Lithuania	32	4.8	32	97.9	24	5.9	28	106.8	29	68.5	29	6.3	57	4	26	4.8	67	4.2	16	5.8	34	4.7	35	4.6	34	4.1
Luxembourg	38	4.7	90	92.5	56	5.4	34	102.4	100	19.4	92	4.3	31	4.5	49	4.5	42	4.6	28	5.3	32	4.7	24	5.2	21	4.7
Macedonia, FYR	72	4	127	83.2	119	4.2	93	82	70	39.4	79	4.7	70	3.7	70	4	88	3.9	45	4.8	64	4.1	53	4.1	70	3.4
Madagascar	112	3	130	77.1	131	3.1	129	38.4	131	4.2	129	1.2	115	2.9	82	3.8	82	4	104	3.6	101	3.6	90	3.6	73	3.4
Malawi	132	2.4	36	97.5	94	4.6	127	39.5	138	0.8	127	1.2	100	3.2	125	2.7	133	3	132	2.6	130	2.9	119	3	122	2.7
Malaysia	23	5.1	77	94.6	33	5.8	95	79	85	29.7	96	4.1	12	5.3	19	5.2	25	5.3	24	5.4	18	5.3	23	5.3	11	5.2
Mali	106	3.1	137	59.4	136	2.1	121	43.5	124	6.9	121	1.5	101	3.2	101	3.5	91	3.8	100	3.7	105	3.6	74	3.7	97	3.1
Malta	19	5.3	51	96.6	18	6.0	87	85.5	63	45.1	67	5.1	19	4.8	22	5	32	4.9	19	5.6	22	5.1	47	4.2	37	4
Mauritania	138	2	132	74.4	135	2.4	135	29.9	128	5.6	134	1	137	2.1	132	2.5	137	2.6	135	2.2	137	2.4	137	2.1	81	3.3
Mauritius	46	4.5	56	96.2	43	5.6	57	97.9	73	38.7	68	5.1	47	4.2	41	4.6	46	4.6	67	4.2	49	4.4	84	3.6	93	3.2
Mexico	114	3	70	95.1	87	4.7	76	90.5	84	29.9	78	4.7	112	3	120	2.9	65	4.2	82	4	106	3.5	44	4.3	52	3.6
Moldova	74	4	113	87.1	105	4.5	83	87.3	66	41.3	69	5.1	102	3.2	73	4	125	3.3	72	4.2	97	3.7	125	2.8	133	2.5
Mongolia	63	4.1	71	94.9	60	5.3	75	90.7	38	64.3	37	6.1	109	3	40	4.6	132	3.1	42	4.9	79	3.9	108	3.2	129	2.6
Montenegro	57	4.2	87	92.9	70	5.1	77	90.3	49	55.3	49	5.8	74	3.7	60	4.4	72	4.1	70	4.2	65	4.1	83	3.6	94	3.2
Morocco	118	2.9	22	98.4	79	5.0	101	69.1	92	24.6	101	3.4	119	2.8	72	4	76	4.1	109	3.6	98	3.6	112	3.1	100	3.1
Mozambique	135	2.1	110	87.6	124	3.6	137	24.5	126	6	134	1	123	2.7	128	2.6	135	2.9	128	3.1	131	2.8	122	2.8	87	3.3
Namibia	88	3.5	105	89.7	106	4.5	108	64.8	118	9.3	109	2.6	92	3.3	114	3.1	115	3.6	115	3.4	113	3.3	92	3.5	89	3.3

Nepal	94	3.4	49	96.9	72	5.1	107	67.2	105	15.8	106	2.9	77	3.6	86	3.8	113	3.6	114	3.4	100	3.6	132	2.4	131	2.6
Netherlands	5	5.9	6	99.6	4	6.4	5	132.3	19	78.5	19	6.7	7	5.4	7	5.6	6	5.8	7	6	6	5.7	4	6	5	5.5
New Zealand	9	5.6	23	98.4	5	6.3	11	117.5	14	80.9	14	6.8	9	5.4	14	5.3	24	5.3	9	6	12	5.5	18	5.6	19	4.8
Nicaragua	133	2.3	45	97	98	4.6	99	74.2	103	17.2	102	3.4	132	2.3	135	2.3	109	3.7	131	2.7	133	2.8	134	2.3	108	3
Nigeria	124	2.8	136	63.8	138	1.9	120	43.8	114	10.4	120	1.5	118	2.8	124	2.7	94	3.8	129	3.1	127	3.1	126	2.7	123	2.7
Norway	17	5.4	4	99.9	11	6.2	14	112.6	21	76.8	21	6.7	8	5.4	25	4.9	11	5.6	5	6.1	9	5.5	19	5.4	20	4.7
Oman	78	3.9	96	91.1	84	4.8	37	101.9	87	28.6	80	4.7	80	3.6	89	3.7	119	3.5	84	4	91	3.7	105	3.2	53	3.6
Pakistan	115	3	133	73	134	2.7	124	41.6	115	10.4	124	1.4	71	3.7	98	3.5	84	4	105	3.6	93	3.7	87	3.6	68	3.4
Panama	99	3.3	61	95.9	78	5.0	98	75.5	72	38.7	90	4.3	89	3.4	110	3.2	87	3.9	58	4.5	90	3.7	59	4	75	3.4
Paraguay	136	2.1	109	88.5	123	3.7	97	76.6	77	35.1	93	4.2	136	2.1	137	2.2	130	3.1	127	3.1	134	2.6	133	2.4	135	2.5
Peru	131	2.4	89	92.8	116	4.2	62	95.6	67	40.5	62	5.2	127	2.6	133	2.5	79	4	88	3.8	120	3.2	114	3.1	110	2.9
Philippines	75	3.9	60	96	61	5.3	80	88.4	76	35.8	72	4.9	44	4.3	79	3.9	41	4.7	61	4.4	53	4.3	72	3.8	61	3.5
Poland	48	4.5	46	96.9	40	5.6	22	108.7	25	71.2	25	6.4	78	3.6	58	4.4	70	4.2	49	4.6	59	4.2	54	4.1	85	3.3
Portugal	30	4.9	20	98.6	22	5.9	12	116.4	34	65.6	33	6.2	42	4.3	45	4.6	40	4.7	34	5.1	35	4.7	25	5.1	36	4
Qatar	6	5.8	93	92.1	26	5.8	19	109.4	106	15.8	95	4.2	5	5.6	5	5.8	5	5.9	11	5.9	3	5.8	14	5.6	10	5.2
Romania	79	3.9	114	87	108	4.4	63	94.8	50	53.2	50	5.7	121	2.8	32	4.7	121	3.4	44	4.8	75	3.9	71	3.8	80	3.3
Russian Federation	49	4.4	66	95.2	53	5.5	43	100.6	18	78.7	18	6.7	69	3.7	52	4.5	74	4.1	33	5.1	51	4.4	46	4.2	46	3.7
Rwanda	52	4.3	59	96.1	51	5.5	128	39.1	122	7.5	128	1.2	46	4.2	54	4.4	59	4.3	64	4.4	52	4.3	80	3.7	78	3.3
Saudi Arabia	64	4.1	52	96.4	54	5.4	24	108.3	44	61.1	44	6	48	4.2	65	4.2	55	4.4	65	4.3	54	4.3	58	4	56	3.5
Senegal	84	3.7	134	71.1	132	2.9	126	40.1	123	7.4	126	1.3	82	3.6	85	3.8	35	4.9	48	4.7	57	4.2	42	4.3	49	3.6



Serbia	77	3.9	55	96.2	62	5.3	64	94.3	46	58.1	46	5.9	103	3.2	46	4.6	105	3.7	102	3.6	86	3.8	60	4	96	3.2
Sierra Leone	119	2.9	31	97.9	80	4.9	123	43.4	137	2.2	123	1.5	110	3	123	2.7	129	3.2	134	2.4	132	2.8	135	2.3	126	2.6
Singapore	4	6.1	1	100	3	6.6	26	108.1	7	86.6	1	7	2	5.9	1	6.4	4	6	1	6.3	1	6.1	10	5.8	7	5.5
Slovak Republic	68	4.1	80	94	68	5.2	72	91.9	54	52.9	54	5.7	117	2.9	77	3.9	104	3.8	32	5.2	76	3.9	62	3.9	82	3.3
Slovenia	21	5.1	33	97.7	16	6.0	16	110.7	10	82.9	10	6.9	50	4.1	9	5.4	52	4.5	21	5.5	28	4.9	28	4.9	42	3.8
South Africa	126	2.7	44	97.1	86	4.8	67	93.8	99	19.7	89	4.3	134	2.3	138	2.2	21	5.4	111	3.5	115	3.3	29	4.9	27	4.4
Spain	58	4.2	15	98.9	42	5.6	6	130.2	3	89.1	1	7	65	3.8	74	4	14	5.5	63	4.4	48	4.4	38	4.5	57	3.5
Sri Lanka	33	4.8	42	97.2	29	5.8	48	99.7	98	20.7	88	4.4	41	4.3	28	4.8	38	4.7	75	4.1	42	4.5	55	4.1	51	3.6
Sweden	42	4.6	8	99.5	30	5.8	4	132.9	43	62.4	43	6.1	23	4.7	51	4.5	19	5.4	3	6.2	19	5.2	7	5.8	12	5.2
Switzerland	2	6.2	81	93.8	10	6.2	47	99.8	47	57.2	47	5.9	1	6.2	4	5.9	1	6.3	10	5.9	2	6.1	1	6.5	1	5.8
Taiwan, China	18	5.4	7	99.5	13	6.2	40	101.2	9	83.7	9	6.9	30	4.5	15	5.2	29	5.1	41	4.9	26	4.9	26	5	17	4.8
Tajikistan	71	4.1	38	97.3	52	5.5	81	87.9	91	26.4	83	4.5	55	4.1	76	4	81	4	57	4.5	62	4.1	65	3.9	31	4.3
Tanzania	117	3	128	80.9	128	3.4	134	32.3	133	3.6	134	1	96	3.3	122	2.8	126	3.3	123	3.1	126	3.1	82	3.7	55	3.5
Thailand	90	3.5	91	92.4	89	4.7	84	86.2	55	52.5	56	5.5	67	3.7	81	3.9	77	4.1	51	4.6	68	4.1	56	4.1	41	3.8
Trinidad and Tobago	44	4.6	65	95.2	48	5.5	86	85.5	110	12	98	3.8	38	4.4	31	4.8	33	4.9	66	4.3	37	4.6	77	3.7	112	2.9
Tunisia	85	3.6	21	98.6	58	5.3	82	87.6	79	34.6	75	4.8	107	3.1	57	4.4	78	4.1	112	3.5	89	3.8	111	3.2	107	3
Turkey	105	3.1	86	92.9	96	4.6	45	100.3	17	79	17	6.8	104	3.2	107	3.3	112	3.6	79	4.1	104	3.6	103	3.3	63	3.5
Uganda	122	2.8	82	93.7	104	4.5	136	27.6	129	4.5	134	1	90	3.4	116	3.1	100	3.8	125	3.1	117	3.3	97	3.4	40	3.8
Ukraine	51	4.4	57	96.2	50	5.5	53	99.2	11	82.3	11	6.9	56	4	27	4.8	93	3.8	35	5.1	46	4.4	50	4.2	57	3.5
United Arab	12	5.5	100	90.7	41	5.6	71	92.3	96	22	86	4.4	10	5.3	10	5.4	16	5.4	4	6.1	7	5.6	27	4.9	25	4.5



Emirates																										
United Kingdom	24	5	5	99.9	17	6.0	8	127.8	48	56.5	48	5.8	21	4.8	38	4.7	2	6.1	14	5.8	15	5.4	2	6.3	6	5.5
United States	25	5	84	93.1	46	5.6	59	97.6	5	86.7	1	7	17	5.1	33	4.7	7	5.7	17	5.8	16	5.3	5	6	4	5.6
Uruguay	91	3.5	12	99.2	64	5.2	66	94.1	40	63.1	40	6.1	111	3	119	2.9	56	4.4	22	5.4	73	3.9	51	4.1	69	3.4
Venezuela	113	3	101	90.7	110	4.3	73	91.6	20	77	20	6.7	122	2.8	115	3.1	50	4.5	110	3.6	107	3.5	95	3.5	103	3
Vietnam	92	3.4	30	98	65	5.2	70	92.5	83	30.5	77	4.8	76	3.6	78	3.9	122	3.4	71	4.2	87	3.8	98	3.4	79	3.3
Yemen	137	2.1	123	84.8	130	3.3	117	48.6	116	10	117	1.7	138	2	136	2.2	136	2.7	137	1.7	138	2.2	138	1.8	138	1.9
Zambia	100	3.3	112	87.4	118	4.2	132	37	136	2.2	132	1.1	53	4.1	96	3.6	95	3.8	107	3.6	88	3.8	85	3.6	60	3.5
Zimbabwe	50	4.4	119	85.9	97	4.6	118	47.6	127	5.9	119	1.7	51	4.1	64	4.3	102	3.8	116	3.4	80	3.9	110	3.2	134	2.5

Annex 12 – Global Competitiveness Index Statistics - Middle Income Countries

Statistics on Education ^{119 120}

Middle Income Countries ¹²¹	Primary Education		Quantity of Higher Education		Quality of Higher Education	
	Rank	Value	Rank	Value	Rank	Value
Albania	1	5.8	10	6.1	4	4.7
Algeria	26	5.1	29	4.9	60	3.3
Argentina	22	5.2	2	6.8	34	3.8
Armenia	56	4.3	21	5.3	25	4
Azerbaijan	25	5.1	39	4.5	26	4
Bangladesh	55	4.3	61	2.3	52	3.4
Bhutan	41	4.7	50	3.7	22	4.1
Bolivia	46	4.6	33	4.8	65	3.1
Bosnia and Herzegovina	13	5.4	20	5.4	53	3.4
Botswana	34	4.9	45	4.3	41	3.7
Brazil	63	4.1	17	5.4	64	3.2
Bulgaria	19	5.3	6	6.4	32	3.9
Cambodia	38	4.7	66	1.7	57	3.3
Cameroon	29	5.0	62	2.2	24	4
Cape Verde	8	5.6	40	4.5	17	4.2
China	3	5.8	25	5.1	10	4.4

¹¹⁹ Global Competitiveness Report 2016-17, World Economic Forum, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf. Accessed on 7 Oct. 2017.

¹²⁰ Country Classifications, World Bank Country and Lending Groups, The World Bank, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>. Accessed on 7 Oct. 2017.

¹²¹ The following countries have been exempt from the study: Cuba, Angola, Belarus, Belize, Djibouti, Dominica, Equatorial Guinea, Fiji, Grenada, Guyana, Iraq, Kiribati, Kosovo, Libya, Maldives, Marshall Islands, Micronesia, Fed. Sts., Myanmar, Nauru, Papua New Guinea, Samoa, São Tomé and Príncipe, Solomon Islands, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Swaziland, Syrian Arab Republic, Timor-Leste, Tonga, Turkmenistan, Tuvalu, Uzbekistan, and Vanuatu.

Colombia	52	4.4	15	5.6	43	3.7
Congo, Democratic Rep.	57	4.3	68	1.5	55	3.4
Costa Rica	5	5.7	14	5.7	3	4.7
Côte d'Ivoire	68	3.4	70	1.3	15	4.2
Croatia	35	4.8	7	6.4	27	4
Dominican Republic	66	3.6	31	4.8	63	3.2
Ecuador	27	5.1	23	5.2	30	3.9
Egypt	47	4.6	37	4.6	70	2.5
El Salvador	54	4.3	47	4.2	67	2.9
Gabon	28	5.0	63	2	54	3.4
Georgia	21	5.2	26	5.1	44	3.7
Ghana	45	4.6	56	3.1	28	3.9
Guatemala	64	3.7	57	2.8	59	3.3
Honduras	40	4.7	55	3.2	47	3.6
India	14	5.3	54	3.3	7	4.5
Indonesia	33	4.9	41	4.4	5	4.5
Iran, Islamic Rep.	9	5.6	9	6.1	35	3.8
Jamaica	7	5.6	51	3.5	16	4.2
Jordan	42	4.7	24	5.2	8	4.5
Kazakhstan	50	4.5	18	5.4	18	4.2
Kenya	58	4.3	58	2.8	14	4.3
Kyrgyz Republic	60	4.2	19	5.4	62	3.2
Lao PDR	30	5.0	60	2.4	33	3.8
Lebanon	23	5.2	49	4.1	2	5.1
Lesotho	67	3.6	64	1.9	51	3.5
Macedonia, FYR	62	4.2	36	4.7	20	4.1
Malaysia	4	5.8	48	4.1	1	5.3

Mauritania	71	2.4	72	1	71	2.4
Mauritius	6	5.6	27	5.1	11	4.4
Mexico	37	4.7	35	4.7	49	3.5
Moldova	48	4.5	28	5.1	45	3.7
Mongolia	16	5.3	8	6.1	31	3.9
Montenegro	24	5.1	12	5.8	21	4.1
Morocco	32	5.0	52	3.4	46	3.6
Namibia	49	4.5	59	2.6	56	3.3
Nicaragua	44	4.6	53	3.4	68	2.8
Nigeria	72	1.9	67	1.5	66	3.1
Pakistan	70	2.7	69	1.4	42	3.7
Panama	31	5.0	44	4.3	40	3.7
Paraguay	65	3.7	46	4.2	69	2.6
Peru	59	4.2	22	5.2	61	3.2
Philippines	17	5.3	30	4.9	13	4.3
Romania	51	4.4	13	5.7	29	3.9
Russian Federation	12	5.5	4	6.7	12	4.4
Serbia	18	5.3	11	5.9	36	3.8
South Africa	36	4.8	43	4.3	58	3.3
Sri Lanka	2	5.8	42	4.4	6	4.5
Tajikistan	11	5.5	38	4.5	19	4.1
Thailand	39	4.7	16	5.5	23	4.1
Tunisia	15	5.3	32	4.8	39	3.8
Turkey	43	4.6	3	6.8	48	3.6
Ukraine	10	5.5	1	6.9	9	4.4
Venezuela	53	4.3	5	6.7	50	3.5
Vietnam	20	5.2	34	4.8	37	3.8
Yemen	69	3.3	65	1.7	72	2.2
Zambia	61	4.2	71	1.1	38	3.8

Annex 13 – Global Competitiveness Index Statistics - Lower Middle Income Countries

Statistics on Education ^{122 123}

Lower Middle Income Countries	Primary Education		Quantity of Higher Education		Quality of Higher Education	
	Rank	Value	Rank	Value	Rank	Value
Armenia	26	4.3	4	5.3	13	4
Bangladesh	25	4.3	27	2.3	26	3.4
Bhutan	17	4.7	18	3.7	11	4.1
Bolivia	21	4.6	10	4.8	31	3.1
Cambodia	15	4.7	31	1.7	28	3.3
Cameroon	11	5.0	28	2.2	12	4
Cape Verde	2	5.6	14	4.5	9	4.2
Congo, Democratic Rep.	27	4.3	33	1.5	27	3.4
Côte d'Ivoire	33	3.4	35	1.3	8	4.2
Egypt	22	4.6	12	4.6	35	2.5
El Salvador	24	4.3	17	4.2	33	2.9
Georgia	10	5.2	6	5.1	21	3.7
Ghana	20	4.6	23	3.1	14	3.9
Guatemala	31	3.7	24	2.8	29	3.3
Honduras	16	4.7	22	3.2	24	3.6
India	5	5.3	21	3.3	3	4.5
Indonesia	14	4.9	15	4.4	1	4.5
Jordan	18	4.7	5	5.2	4	4.5
Kenya	28	4.3	25	2.8	7	4.3

¹²² Global Competitiveness Report 2016-17, World Economic Forum, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf. Accessed on 7 Oct. 2017.

¹²³ Country Classifications, World Bank Country and Lending Groups, The World Bank Link: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>. Accessed on 7 Oct. 2017.

Kyrgyz Republic	29	4.2	3	5.4	30	3.2
Lao PDR	12	5.0	26	2.4	16	3.8
Lesotho	32	3.6	29	1.9	25	3.5
Mauritania	36	2.4	37	1	36	2.4
Moldova	23	4.5	7	5.1	22	3.7
Mongolia	7	5.3	2	6.1	15	3.9
Morocco	13	5.0	19	3.4	23	3.6
Nicaragua	19	4.6	20	3.4	34	2.8
Nigeria	37	1.9	32	1.5	32	3.1
Pakistan	35	2.7	34	1.4	20	3.7
Philippines	8	5.3	8	4.9	6	4.3
Sri Lanka	1	5.8	16	4.4	2	4.5
Tajikistan	4	5.5	13	4.5	10	4.1
Tunisia	6	5.3	9	4.8	19	3.8
Ukraine	3	5.5	1	6.9	5	4.4
Vietnam	9	5.2	11	4.8	17	3.8
Yemen	34	3.3	30	1.7	37	2.2
Zambia	30	4.2	36	1.1	18	3.8