# V. Advancing Sri Lanka's Education System through Quality Inputs

**Sri Lanka's ability to create a demand driven education system that focuses on lifelong learning will determine the country's capacity to embrace the benefits of knowledge economy.** A successful education system will focus on learning rather than schooling, and creating an enabling environment that promotes creativity, improves the quality of basic and tertiary education, and provides opportunities for lifelong learning.

**Developing lifelong learning systems and improving quality are the keys for Sri Lanka.** A lifelong learning system involves learning from early childhood to retirement and includes formal training (schools, training institutions, and universities) and non-formal learning (on-the-job training, and skills learned form family members and people in the community).[46] It will be increasingly important to raise participation, finance, and quality at all levels. The education provided should effectively provide the labour force with the skills necessary for the emerging knowledge economy: an economy that will require hard skills including literacy, ICT competencies, and a new set of soft skills, including communication, problem-solving, creativity, and teamwork.

**Sri Lanka will need to focus on improving the quality of education.** Sri Lanka has been successful at producing a population of literate individuals. However, literacy alone will no longer suffice in the knowledge era. It will be increasingly important for educated individuals to supply the workforce with the market oriented skills needed to create rapid economic growth and national development. The government's new development plan, *Mahinda Chintana: Vision for a new Sri Lanka*, intends to transform the education system into one that will provide the technological skills, educational content, and methods to promote the development of inquiring and adaptable minds. This goal will only be accomplished by increasing educational funding and devoting increased resources to modernize the school curriculum, develop the teacher training system, and upgrade the examination and evaluation system. Introducing IT, English language training and greater use of technology will be important to impart the necessary skills and orient the education system to the world of work.

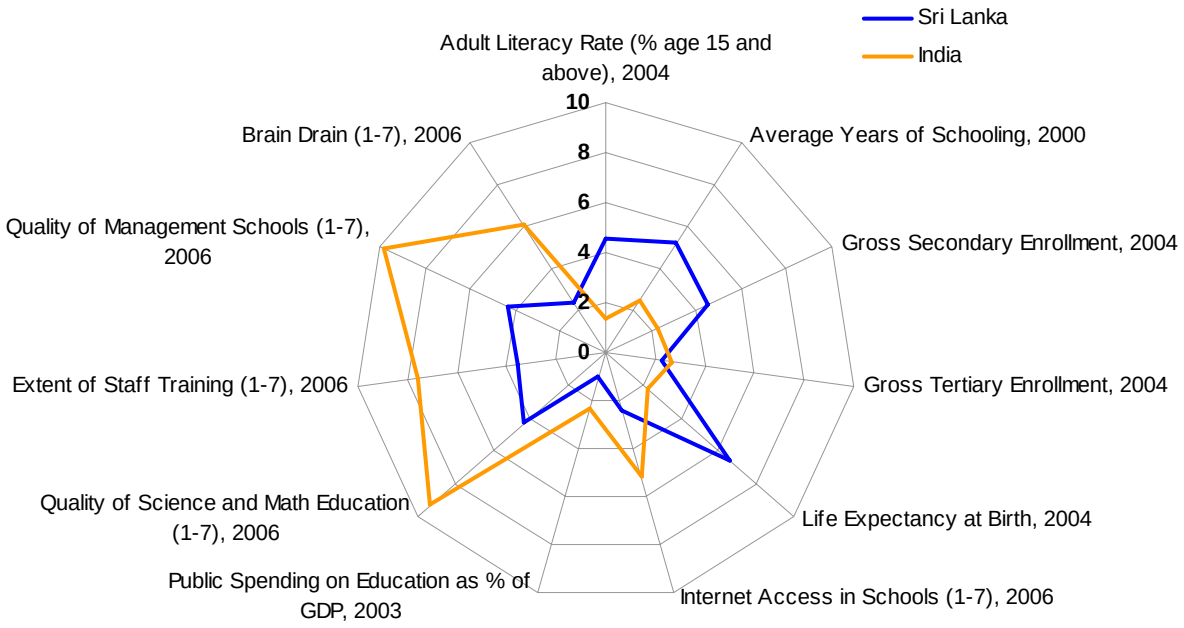
## Benchmarking Sri Lanka's Education System

**Although Sri Lanka has managed to achieve high levels of literacy, it has been unable to provide students with high quality educational services.** Sri Lanka ranks poorly in terms of science and math education and internet access in schools. Alternatively, India has been able to provide its students with quality science and math educations, well trained staff, and well managed schools despite low levels of adult literacy.

Sri Lanka's efforts have been primarily concentrated on basic education, particularly secondary, with much less focus on higher levels of education. In order to participate successfully in the knowledge economy, the country will have to increase quality inputs such as IT access, constructive and effective teaching, better math and science education, whilst constantly consolidating existing high levels of literacy.

[46] World Bank 2005a.

**Figure 22: Lack of Quality Inputs in Sri Lanka's Education system**




*Source: World Bank Knowledge Assessment Methodology, www.worldbank.org/kam*

## Issues and Recent Developments in the Education System

### *Governance of the Education System*

**To create an effective education system, Sri Lanka will need to give more autonomy to educational institutions.** The general education sector in Sri Lanka has a complex governance framework. The central government is responsible for national education policy at all levels and administers around 325 national schools. It is responsible for establishing the school curriculum, setting the curricula of teacher education institutions, accrediting textbooks published by private firms, publishing and distributing textbooks, and providing school uniforms and transport subsidies. It also administers the professional development programs and courses for principals, section heads and teachers, conducts examinations, and executes a range of education development measures and initiatives. At the same time, provincial councils administer the school system by developing education plans and budgets, and deploying education administrators, principals and teachers within the province.[47] In order to increase the effectiveness and performance of schools at all levels, it will be important to further devolve education management down to the level of individual education institutions and involve local communities, to empower frontline service providers such as principals, section heads and teachers.[48]

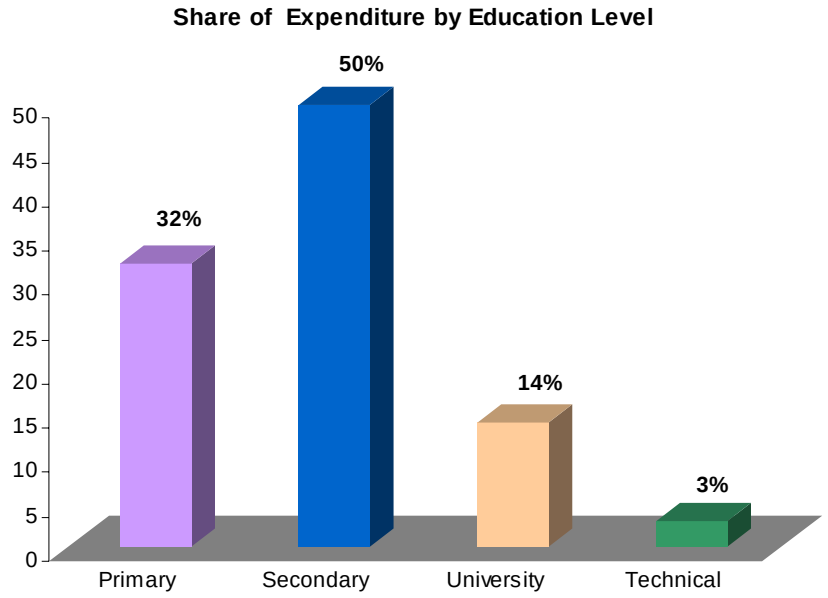
### *Spending on education*

**Sri Lanka currently devotes a comparatively small percentage of its government expenditure towards education and a large percentage is distributed towards secondary education.** Investments in both basic and higher education are fundamental for countries to improve the productivity and quality

[47] World Bank, 2006d.
[48] World Bank, 2005b

of labour and deliver the manpower needed for development. Sri Lanka's public expenditure on education has remained at between 2-3 percent of GDP during the past decade and a half, compared to a 3.5 percent average in the rest of South Asia.[49] In 2005, the education budget increased to 2.7 percent of GDP amounting to LKR 40 million (USD 415 million), after having fallen to just 2 percent the previous year.[50] General education which includes basic and secondary levels absorbs the largest share of total expenditure followed by higher education and vocational education (Figure 23). Low investment in education means that young school leavers are not well-qualified to take up existing skilled jobs in the private sector. Sri Lanka should increase its spending on education and shift increasing amounts towards quality inputs. Areas of the education system that are potentially demand-driven, such as tertiary and technical education and vocational training (TEVT) can also be improved by increasing private sector participation.

**Figure 23: Sri Lanka spends heavily on Secondary Education**



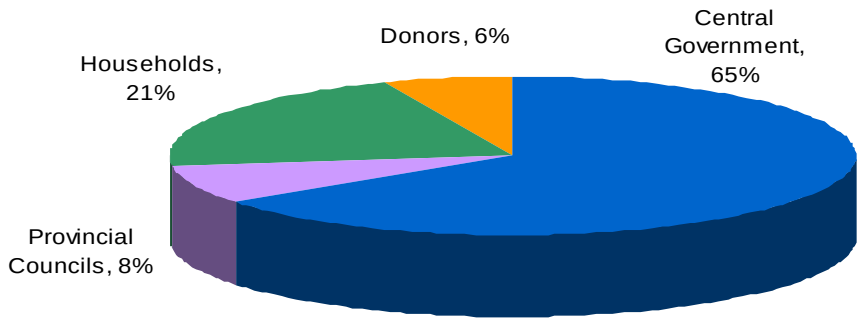

*Source: "Treasures of the Education System in Sri Lanka", World Bank 2005*

## *Public versus Private Funding*

**Involving the private sector in education investment, particularly at the tertiary and vocational levels will be increasingly important.** Sri Lanka banned the establishment of private schools from grades 1-9 in the early 1960's and this legal prohibition still remains in force to date (Figure 24). However, a great deal of secondary and higher educational institutions are substantially financed by the private sector. Private sector investment and participation in education has many benefits. It can release more public resources for students from poorer families as the students attending private schools and educational institutions are likely to be drawn from upper income families. It can also stimulate economic activity in a sector where investment has been artificially restricted. But perhaps most significantly it would provide an alternative mode of service delivery, with considerable power and responsibility at the level of the individual educational institutions, such as private schools and institutes. These private education institutions would be compelled to offer high quality services to remain viable in an economic context where they are in competition with free public education institutions.[51] This competition is particularly important in raising standards in the public sector.

[49] ADB 2006.
[50] World Bank, 2006d
[51] World Bank, 2005b

**Figure 24: Sri Lanka Education primarily funded by the Public Sector**




*Source: "Treasures of the Education System in Sri Lanka", World Bank 2005*

## *Where should funding be going?*

**Sri Lanka needs to devote more of its financial resources towards quality inputs such as incorporating IT into education and increasing the quality of teaching.** Provincial councils play a primary role in the flow of public education finances. Education is the most decentralized sector in Sri Lanka, with education budgets, typically accounting for over half of the provincial expenditures. The main challenge faced by the recurrent education budget is and will continue to be allocating sufficient funds, once salaries and administrative costs have been distributed, to support education quality processes, such as professional development of teachers and principals, delivery of onsite academic and administrative support to schools, and meet the operating costs of capital education investment. Only 20 percent of Sri Lanka's current resources are invested in quality inputs. It will be increasingly important to shift resource allocation in favour of equipment and technology like IT centers, science laboratories, libraries, and activity rooms. [52]

## *Primary and Secondary Level Education*

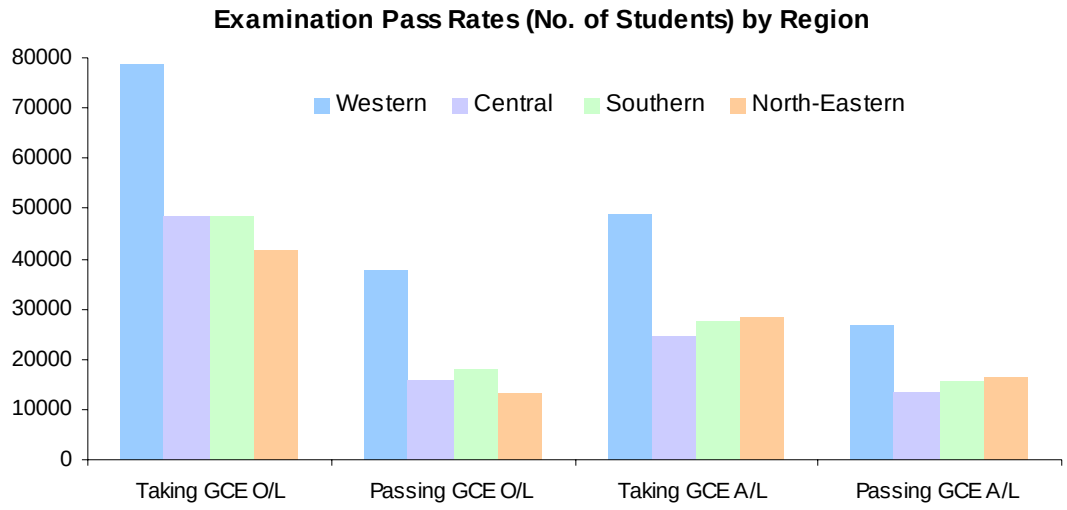
**Low test pass rates and a lack of relevant skills are leaving students with little opportunity in the workforce.** The low quality of education in terms of infrastructure, distribution of teaching resources and the learning-teaching process in the classroom is reflected in the low mastery levels of the first language, mathematics in primary grades and in low GCE pass rates.[53] (Figure 25). The average pass rate at the GCE O/L exam is 37 percent, implying that just one out of every three students successfully completes this basic exam. Pass rates in Sri Lanka's underprivileged areas including the North-Eastern, North-Central, Uva, and Central Provinces are between 31 percent and 32 percent.[54]

**There is a desperate need for modernization and diversification of the curriculum at the primary and secondary school levels.** Activity-based learning, teaching and personality development as well as technical subjects in the grades 10-11 curriculum have received low priority. Only 6 percent of schools offer science in grades 12-13. The management of the education system including the delivery of services, supervision, administration, and monitoring, is reported to be weak at local levels underscoring

[52] World Bank, 2005b
[53] World Bank, 2005b (p. 6)
[54] World Bank, 2005b (p.8)

the need for capacity building and the adoption of effective monitoring mechanisms. In order to improve the quality of learning, the school system should involve communities and parents to monitor and evaluate the school performance to a much greater degree while encouraging competition in education, giving more autonomy to schools to attract teachers and students, and using distance education technologies to improve and increase access to primary, secondary and vocational education.

**Figure 25: Poor Examination pass rates at higher secondary education**



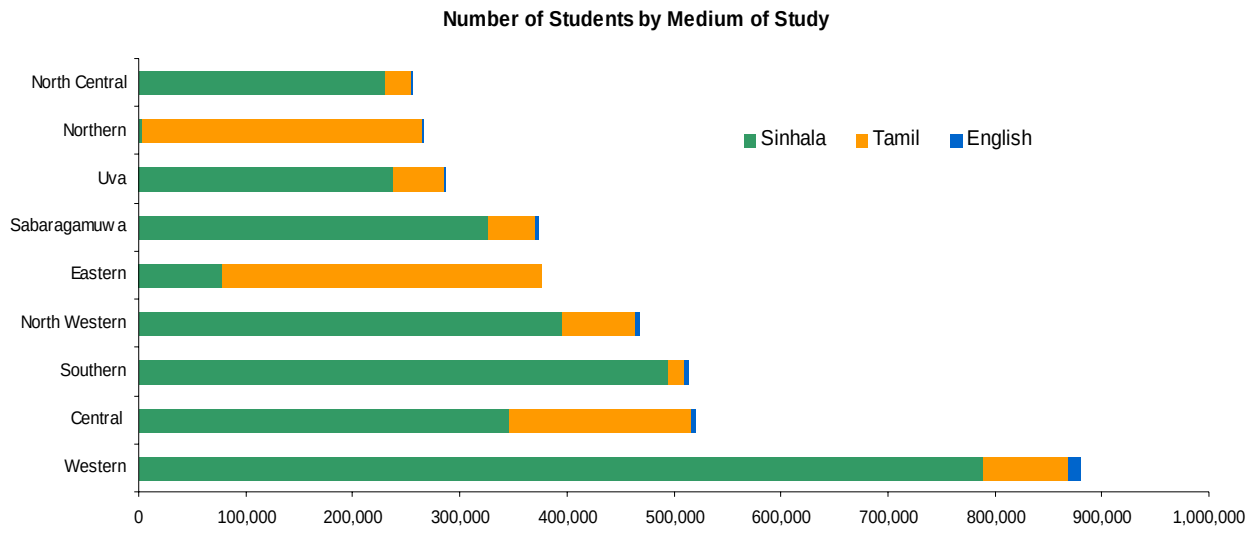

*Source: "Treasures of the Education System in Sri Lanka", World Bank 2005*

## *Introducing English Language Skills into the Education System*

**Sri Lanka's proficiency in English remains poor, having declined significantly in the last 30 years.** English is and will continue to be the global business language and, thus, in order for Sri Lanka to effectively participate in the knowledge economy, the country will need to recognize the importance of English as a determinant of future growth. English language skills not only enjoy strong demand in the national labour market, but English language competency also opens up job prospects in the global economy. In Sri Lanka's fairly young, yet promising BPO labour market, English is considered to be the most important skill requirement, yet also one of the country's biggest shortfalls. A recent BPO industry survey revealed that although employment prospects are opening up in the BPO sector, the supply of potential workers with good English speaking skills remains a bottleneck.[55] English is currently taught as a second language up to the GCE Advanced Level in all schools. As a result, only 10 percent of children achieve a targeted level of mastery in English language skills while English writing skills are virtually non-existent with only 1 percent of children exhibiting the required skills level. Additionally, these skills are largely restricted to urban areas where 23 percent of children master English compared to only 7 percent of rural children (Figure 26).[56]

[55] Lirneasia, 2006b
[56] World Bank, 2005b. (p.59)

**Figure 26: Very few students study in English outside the Western Province**




*Source: Sri Lanka Ministry of Education, Statistics Branch*

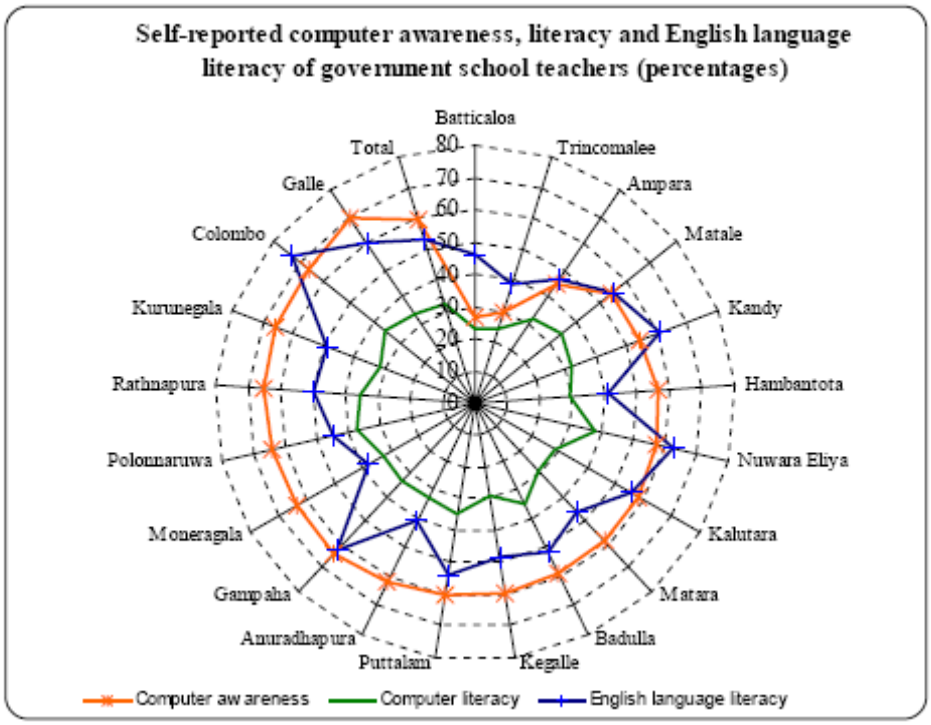
**English is gradually becoming recognized as a key factor for growth.** Government is implementing new strategies in order to introduce English into the curriculum. Sri Lanka is making substantial efforts to improve the level of English proficiency among the country's youth. A pilot program has recently been launched in some schools to teach certain subjects within grades six and seven in the English medium. This program was extended to grade eight in 2004, and will be further extended to the GCE O/Level examination in 2007. Within this program, teachers will also be trained in selected Colleges of Education to teach in English. A similar project has been started in 64 schools in which science subjects at the GCE A/Level classes will be taught in English. Approximately 150 science graduates and 300 teachers have already been recruited and trained to teach in English.[57]

## *Incorporating IT into Course Curricula*

**Children's access to ICT is low: few students and even fewer teachers are IT literate.** Even in the elite public schools, access to computer facilities, defined by the student to computer ratio is well over 1:100. Computers alone are not enough to provide students with the comprehensive skills needed to use computers. This training should be supplied by capable teachers who are skilled in not only teaching students how to use them, but also using computers, themselves, in daily lessons and incorporating them into teaching methods. A Department of Census and Statistics census found that nearly 30 percent of schools had computers in working order with National (95.2 percent) and Navodya (90.1 percent) schools considerably better equipped than other government schools (23.9 percent). The availability of land phones was low at 26 percent. Internet and e-mail facilities were only available in 6.4 and 4.1 percent of schools, respectively. The computer-student ratio is 1:137. The study found that more than 60 percent of teachers lack the computer literacy skills needed in a modern teaching environment.[58]

[57] Ministry of Education, Historical Overview.
[58] Department of Census and Statistics school census conducted on November 2nd 2006.

**Figure 27: Poor Computer literacy among rural Sri Lankans**




*Source: Sri Lanka Department of Census and Statistics*

**Government is expanding teacher ICT training.** Teacher ICT training has started in National Colleges of Education (NCOEs) and in Computer Resource Centers. However, most of these are crash courses, which focus on computer literacy and do not enable teachers to return to their classrooms with the ability to use the computers in teaching their assigned subjects. Teachers still require intensive training not only in computer literacy, but also in how to integrate educational software into classroom activities and the school curriculum.

The Ministry of Education (MOE) has constructed a six year development plan that aims at providing IT literacy to all government teachers, to set up a computer-student ratio of 1:40, to develop the necessary text books and to obtain the required multimedia software for IT education.[59] Another project, the Secondary Education Modernization Project (SEMP) funded by Asian Development Bank (ADB) is planning to open 800 Computer Learning Centers with 16,000 computers. Projects such as these will therefore aim at helping upgrade the knowledge and skills of teachers and facilitators in integrating new educational technologies and distance education methods into their work.

## *Improving teaching*

**The incentives to teach are not currently motivational.** Sri Lanka's teacher salaries have been declining in real terms by about one percent per year. In 2002, teachers earned only about 85 percent of the 1978 salary in real terms. A PhD qualified senior lecturer or professional earns in the range of about USD 200-350 per month.[60] These low wages have made it difficult to attract and retain highly qualified academic personnel at Sri Lankan universities. The low level of teacher salaries has largely contributed to poor teacher motivation and has resulted in poor education outcomes at the tertiary level. Teacher status,

[59] Department of Census and Statistics
[60] World Bank, 2006d

motivation and work attitudes have deteriorated over the past few years and the importance of re-motivating and improving the attitudes of teachers should be a national priority.

**Low teacher salaries and a lack of incentives hinder deployment to difficult areas.** Teachers generally avoid disadvantaged rural areas and prefer to stay in cities, towns and prosperous urban areas. This leads to overstaffing at urban schools and understaffing in rural areas with concomitant effects on learning outcomes in disadvantaged rural communities. This pattern is repeated at the tertiary level where it has also been very difficult to attract qualified individuals to reside in subsidiary towns or semi-urban locations. In Colombo, Kelaniya, Sri Jayawardenapura, and Peradeniya, the ratio of academic staff with postgraduate qualifications (such as professors and senior lecturers) to academic staff without postgraduate qualifications (such as lecturers) is 1.5:1, in the universities located in subsidiary towns or semi urban locations this ration is 0.25:1.

**Absenteeism is also a significant issue affecting many schools.** Sri Lanka's teachers take 7 million days of illegitimate leave per year. The incidence of teacher absenteeism as a proportion of the school year varies from 15 percent in the North-Western Province to 20 percent in the North-Central and Uva provinces.[61] These are absenteeism rates based on leave days taken and evidence suggests that leave regulations are not strictly enforced, and teacher absenteeism may actually be higher. Steps are being taken to combat the low level of education service delivery in rural areas. The MOE, with the assistance of the World Bank, has begun offering various incentives to teachers serving in difficult schools through the Teacher Education and Teacher Deployment Project. This project aims to overcome some of the problems associated with teacher training and deployment.

**Improvements in standardized training have led to a significant reduction in the number of untrained teachers.** Over the past seven years the country has established 17 National Colleges of Education (NCOE) to ensure that all individuals joining the teachers' service successfully complete a three year pre-service teacher education program and receive due certification, or are university graduates. NCOEs require new teachers for grades 1 - 11 to undergo 2-year residential training programs combined with a 1-year internship period in schools. As a result, the number of untrained teachers in the system has been reduced from about 45,000 in 1997 to around 2,000 in 2003. In addition, 94 teachers centers have been established, one in each zone, to facilitate continuing professional development opportunities for teachers, particularly to widen and upgrade subject content knowledge, and refresh pedagogical skills through continuing teacher education. Untrained teachers are increasingly receiving standardized training in Teacher Training Colleges, at the National Institute of Education (NIE) and through the Distance Education Program. Short-term continuing education courses are conducted in Teacher Education Institutes and 100 Teacher Centers while Post Graduate courses in Education are also offered by the universities.[62]

**New government policies are currently being implemented in order to both increase the motivation of teachers and the incentives associated with teaching in underprivileged areas.** In recent years, government faced substantial pressure to find jobs for the growing number of the unemployed secondary and university graduates. Last year approximately 40,000 university graduates were recruited in different ministries and 19,000 of them were assigned as teachers. This is in addition to the 3,000 teachers that are recruited from the teacher training institutions and the NCOEs. These new recruits increase the teaching force by approximately 11 percent. The MOE is preparing a policy to redeploy these teachers on the basis of incentives to work in rural areas with a view to increasing the teacher-student ratio in primary and secondary education. The MOE is also considering other policies to train teachers through distance education and retrain teachers for subject areas that are in need. MOE is also considering providing incentives, such as extra salary increments, faster promotion, allowing teachers to cash unutilized leave, and the construction of teachers' quarters for teachers appointed to disadvantaged areas.

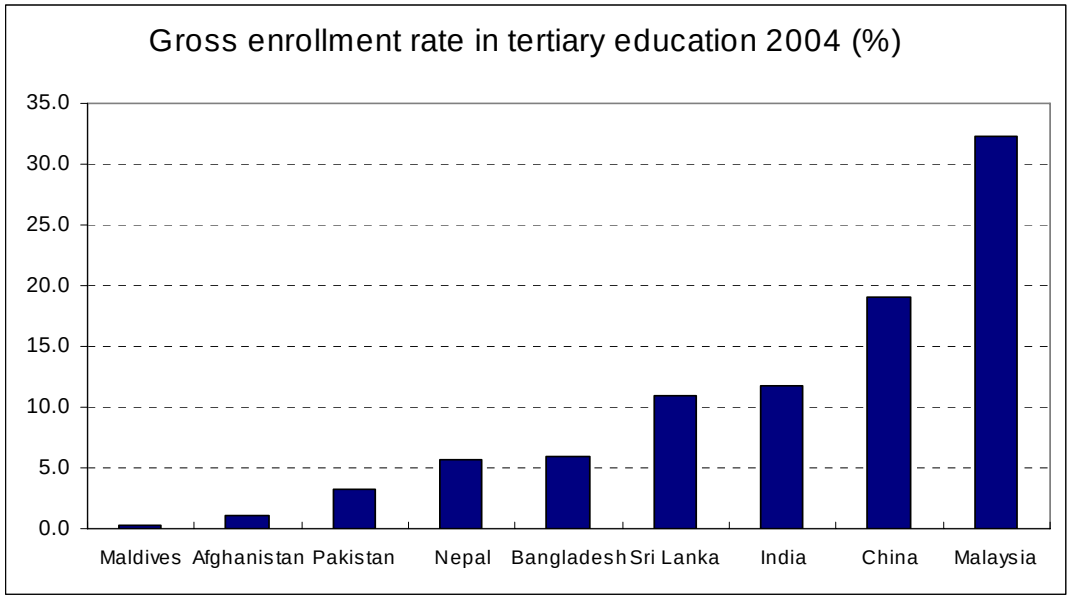
[61] Ibid.
[62] Ministry of Education, 2005.

## Sri Lanka's Tertiary Education System

**At 11 percent, Sri Lanka's tertiary enrolment rate is at the South Asian average.** Sri Lanka's higher education system consists of 17 public universities, catering to around 100,000 students. A further 13 postgraduate and specialized institutes cater to another 6,000 students. But the bulk of tertiary education is in the private sector where students are enrolled in a variety of professional courses, such as IT, management, accounting, marketing, law, business and finance. It is estimated that if these non-university higher education entities and private institutions were included in the education statistics, the actual tertiary enrolment rate would be closer to 18 percent.[63] Anecdotal evidence suggests that this sector consists of a variety of institutions from the worst to the best. Without better knowledge of the situation it is difficult to discuss meaningfully the expansion of private higher education.

**Sri Lanka's tertiary system has been unable to match education with market needs.** The structure of the education system in Sri Lanka and the mismatch between the system outputs and the labour market needs has led to significant unemployment of secondary and university graduates. Unemployment rates of secondary and university graduates in the 19-29 are group ranges between 26 and 34 percent. Sri Lanka's recent economic growth has not been matched by growth in employment. And yet there are a large number of jobs that go unfilled as employers cannot find workers with the relevant skills. This problem is exacerbated by Sri Lanka's rigid labour laws which discourage employers from hiring young workers and investing in their training (see section II).

**Figure 28: Sri Lanka needs to invest more in higher education**




*Source: The Knowledge Economy and Education and Training in South Asia, World Bank 2007*

[63] Draft Concept Note for the National Higher Education Policy Note, World Bank May 2007

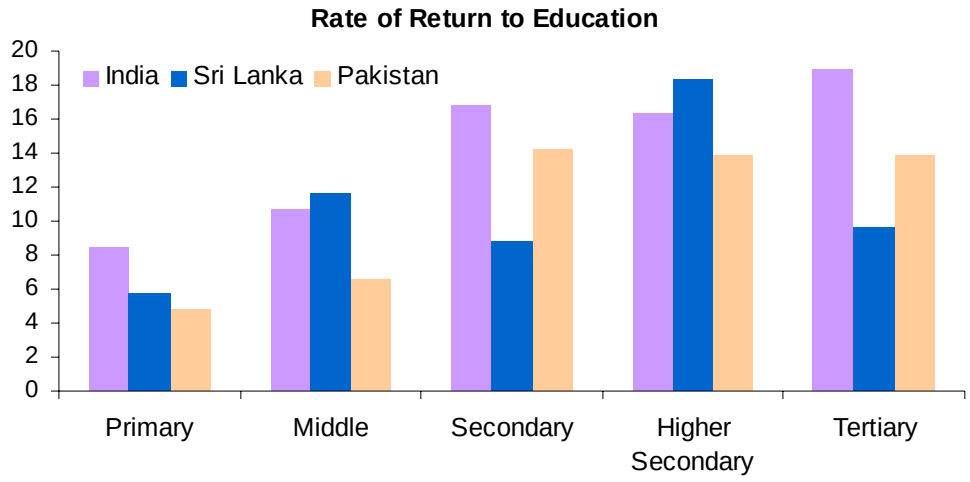
**Box 6: New Developments in Sri Lanka's Higher Education**

New developments in tertiary education include a government project, "Improving the Relevance and Quality of Undergraduate Education" (IRQUE) which is supported by the World Bank. While building up institutional capacity at both central and institutional levels, the project's main thrust is to introduce a competitive mechanism to support universities engaged in programs to enhance the quality of their curricula and make them more relevant to the labor market. The project is limited to universities and undergraduate studies, and does not address the broad, long-term and systematic issues of the sector. Recognizing that higher education has a formidable potential, the government has also launched a consultative process to develop a strategy for developing this sub-sector. The public was invited to submit proposals in order to feed in ideas and suggestions for the strategy. It is planned to expand this process further, while infusing international experience and best practices. In January 2007 the Ministry of Education was split in two parts creating a fully-fledged Ministry of Higher Education, marking a renewed priority to this sub-sector by the government.

*Source: Draft Concept Note for the National Higher Education Policy Note, World Bank 2007*

**In Sri Lanka, investing in tertiary education actually generates a lower rate of return compared to those who finish only secondary education**. It would be reasonable to expect earnings to increase with the level of educational attainment and, for any given level of education, earnings to increase with years of labour market experience although at a decreasing rate. However, Sri Lanka is an exception both for the lower return on investments in higher education as well as its much flatter wage-experience profile.[64]

**Figure 29: Low rate of return for Sri Lanka's higher educated**



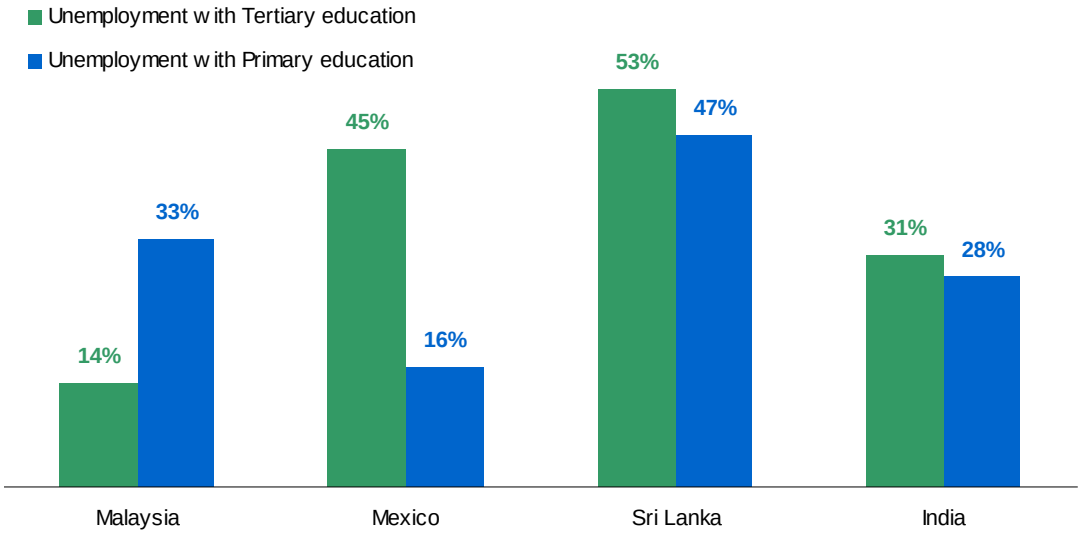

*Source: The Knowledge Economy and Education and Training in South Asia, World Bank 2007*

**Enrolment at university is dropping rapidly as students fail to see the benefits in pursuing higher education.** In order to increase the level of university enrolments, it will be increasingly important to make the Sri Lankan university system more demand driven, quality conscious, and forward looking. This will only be accomplished by empowering institutions (with full accountability), utilizing resources optimally, mobilizing additional financial resources, establishing effective quality assurance mechanisms, facilitating the networking of institutions to enhance capacity, improve quality, and promote excellence, establishing better and closer linkages with industry and community, and increasing access and reducing regional imbalances.

[64] M. Riboud et. Al

**An absence of linkages to the private sector has led universities to be too academic and impractical**, demonstrated by the high levels of unemployment among university graduates (Figure 30). Improving the quality and relevance to meet local needs and international standards related to issues of curricula, university-industry linkages and employability of graduates will be increasingly important for Sri Lanka to embrace the knowledge economy.

**Figure 30: High unemployment levels for Sri Lanka's higher educated**




*Source: The Knowledge Economy and Education and Training in South Asia, World Bank 2007*

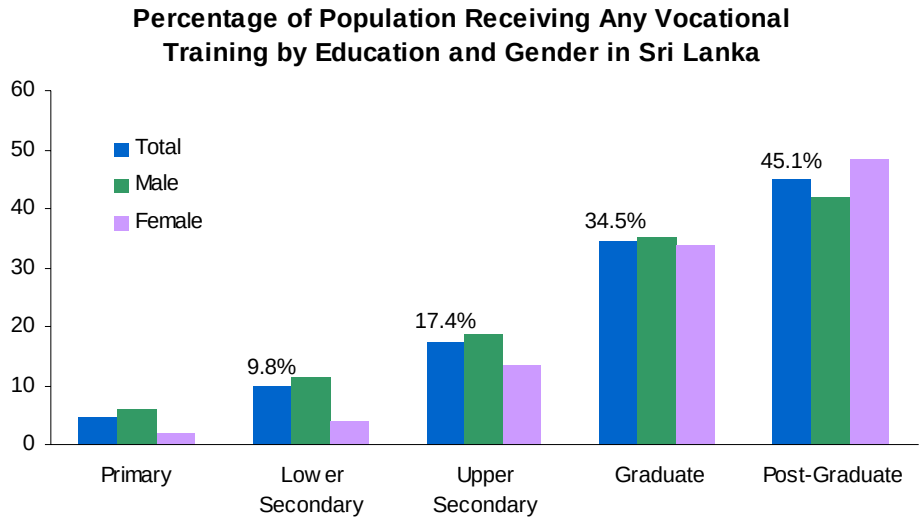
## Sri Lanka's Technical and Vocational Training System

**Formal vocational training is associated with returns of 17 percent; more than double that of an additional year of university education.**[65] As outlined above, Sri Lanka's formal education system has become supply driven and has a poor record of providing industry relevant skills. Sri Lanka's TEVT institutions have become an effective option for students leaving the formal education sector.

**Sri Lanka's development of TEVT institutions has facilitated the school to work transition** and has helped reduce the skill gaps and skill mismatches in the labour market. The TEVT sector is currently made up of an extensive system of public, private, and NGO sector training providers. In 2001, there were about 920 training institutes registered with the TEVC comprising of 556 institutions in the public sector, 252 in the private sector, and 112 in the NGO sector. Student intake more than doubled from 32,612 to 67,612 between 1990 and 2002 representing an annual growth of 8.9 percent, with the western province alone accounting for about 30 percent of these enrolments. A new network of Vocational Training Institutes (100) and community schools are to be set up which will facilitate an increase from 90,000 to 200,000 by 2016.[66]

[65] The Knowledge Economy and Education and Training in South Asia, World Bank SASHD, 2007
[66] Hong, Tan. 2004

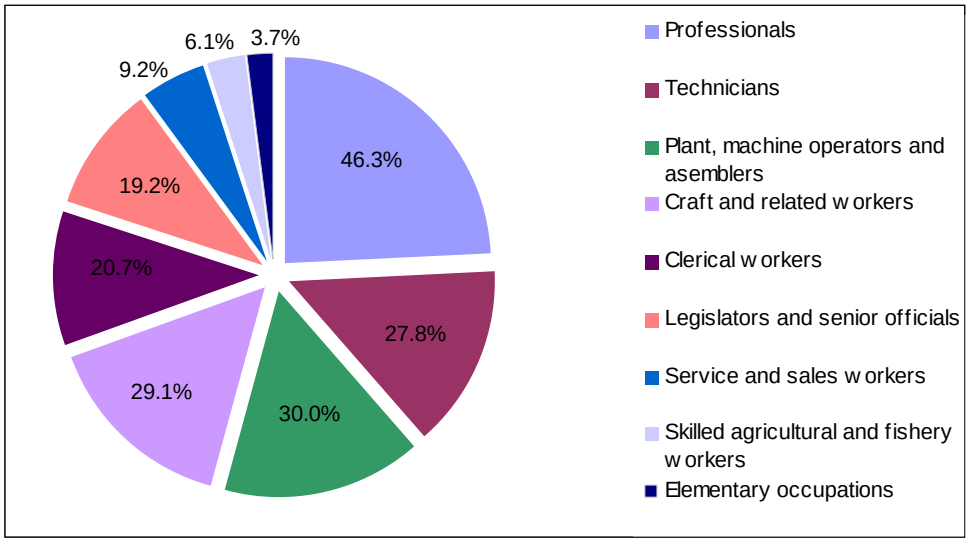
**Figure 31: Training is mostly at the post-graduate level in Sri Lanka**




*Source: Sri Lanka Labour Force Survey 2002*

There is a strong tendency for the incidence of training to rise with the level of educational attainment. It is also worth noting that the incidence of post-school vocational training peaks at or after high-school, after which it declines before peaking again after the first degree. These two points are when individuals end formal education and get post-school vocational or technical training, either to become a skilled worker after high school, or to become a professional after completing tertiary education.

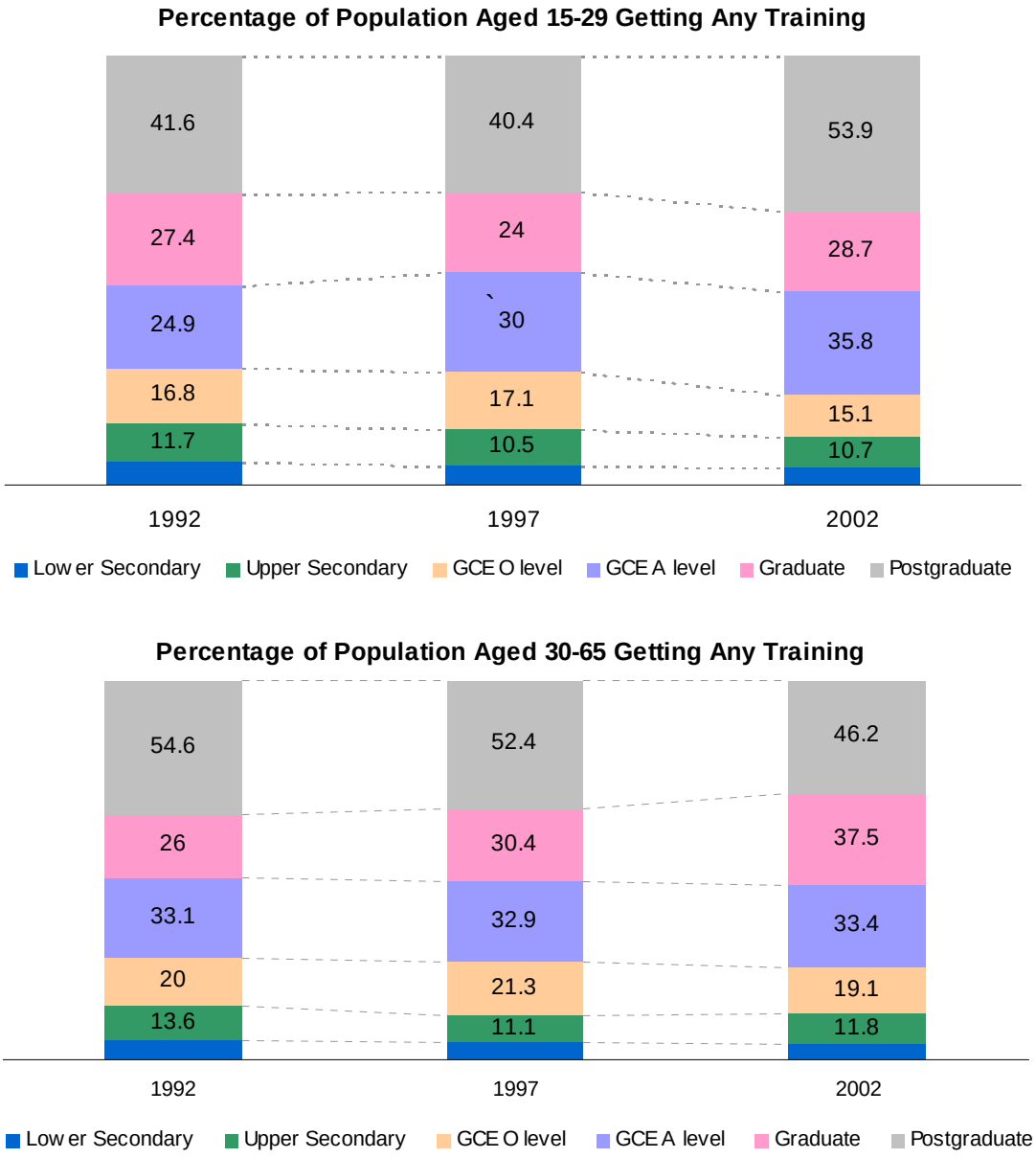
**Figure 32: Professional Sector workers more likely to get vocational training than other occupations**




*Source: Sri Lanka Labour Force Survey 2002*

Like many South Asian countries, professionals, technicians and clerical personnel are more likely than other occupational groups to get vocational training. This is likely due to the fact that these are the occupations that tend to include a high proportion of the highly educated. Sri Lanka particularly shows a relatively high share of plant & machine operators and assemblers & craft workers who received training. The occupations with the lowest share of individuals getting training are employees in sales, services and agriculture where educational requirements are low.

**Figure 33: Training by Age-Group**




*Source: The Knowledge Economy and Education and Training in South Asia, World Bank 2007*

Among youth, there is a dramatic increase in the incidence of training for those with GCE A levels and above, but not for those with GCE O levels and below. Among Adults 30 years and above, the only group to show a rising trend in training were university graduates. Another observation is, at each level of education, a roughly equal or higher proportion of adults report having training as compared to similarly educated youth which is consistent with a cumulative probability of training that rises as level of education and experience rises.

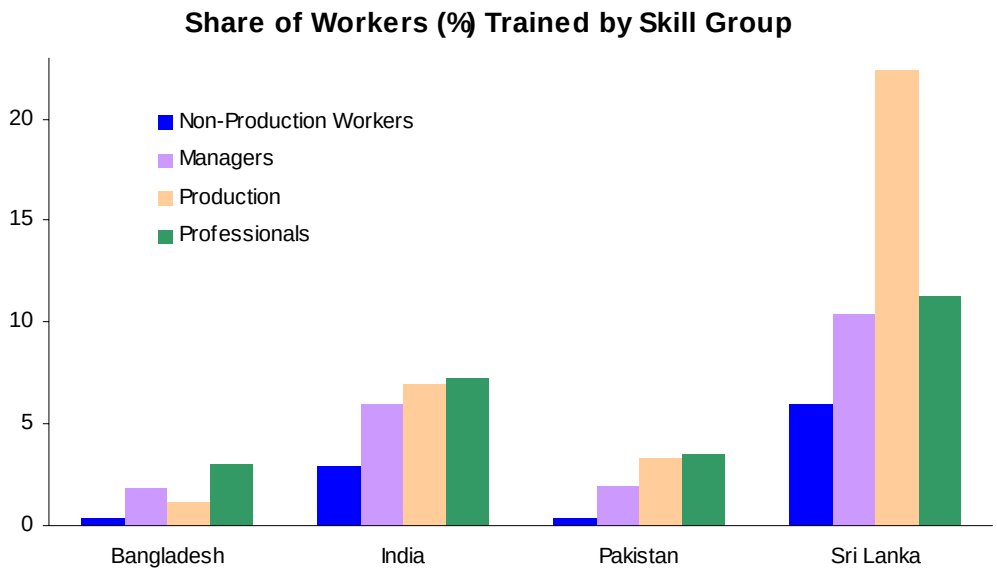
**Table 3: Probability of training by Gender and Education level**

| | 1992 | | 1997 | | 2002 | |
|---|---|---|---|---|---|---|
| | M | F | M | F | M | F |
| Lower Secondary | 11.5 | 3.5 | 10.5 | 2.7 | 9.9 | 2.3 |
| Upper Secondary | 15.9 | 8.7 | 14.8 | 6.8 | 15.8 | 6.8 |
| Graduate | 29.9 | 21.9 | 33 | 24.1 | 39.6 | 31.4 |
| Postgraduate | 57.5 | 41.8 | 53.3 | 48.9 | 46.9 | 46.7 |

*Source: The Knowledge Economy and Education and Training in South Asia, World Bank 2007*

The data also suggests that women are less likely to receive post-school vocational training as compared to their male counterparts with the same level of education. In Sri Lanka 15.1% of men get vocational training versus just 9.1% of women, although the reason for this remains unclear.

**Figure 34: Production workers receive heavy training in Sri Lanka**




*Source: Investment Climate Survey (various years), World Bank*

**Although they are playing a useful role TEVT institutions can still be improved.** The government's development strategy, Vision 2010, defines the three main challenges facing the TEVT sector as qualitative and quantitative mismatches in certain areas of skills demand, external and internal inefficiencies in the sector with duplication of courses, outdated curricula and equipment, shortage of good trainers, and high dropout rates. Another significant flaw in the TEVT sector is the absence of sound data on the effectiveness of these training courses. Monitoring and evaluation of TEVT institutions and their course offerings remains incomplete and based on poor data, particularly regarding training by private sector training providers and employers.[67]

[67] World Bank, 2005b

**Sri Lanka is taking substantial steps to improve the quality and relevance of TEVT programs.** National Skills Standards based on competencies identified for specific occupations and a scheme of competency-based assessments has recently been introduced. In addition, a unified certification system has also been developed and the registration of all vocational training institutions, accreditation of their courses and quality auditing by the tertiary and vocational education commission have commenced.

**Box 7: Does the Knowledge Economy shape firms in-house training decisions?**

Unlike in formal education where education decisions are household and individual-based, the closer an individual gets to the world of work post-school training becomes a joint decision with employers. Information on incentives for in-house training and employer training decisions were elicited as part of the Investment Climate Surveys. In the context of this paper, it is useful to assess if these employer incentives are shaped by the needs of the Knowledge Economy. The figures below compare the incidence of training in four South Asian countries by two crude proxy variables for the export orientation and technology level of the enterprise. The firm's export orientation is measured by an indicator variable, with a value 1 if the firm exports and 0 otherwise, and the technology level of firms is captured by an indicator variable for whether enterprises engage in R&D. As shown below, evidence suggests that firms in South Asia that export or engage in R&D activities are more likely to report in-service training, compared to those that do not. Export orientation can have a salutary effect on training to produce high quality products meeting exact standards of foreign buyers, and to increase lab productivity to meet competitive pressures. There is also support for the training-technology hypothesis. The second panel below strongly indicates that the incidence of in-service training is higher in enterprises that engage in R&D activities.

**Figure 35: Sri Lanka has highest prevalence of in-house training for firms engaging in R&D**

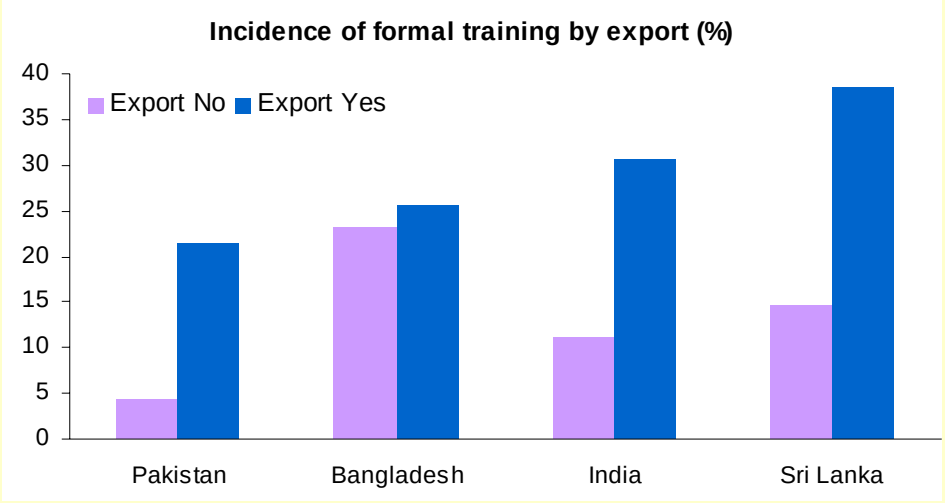
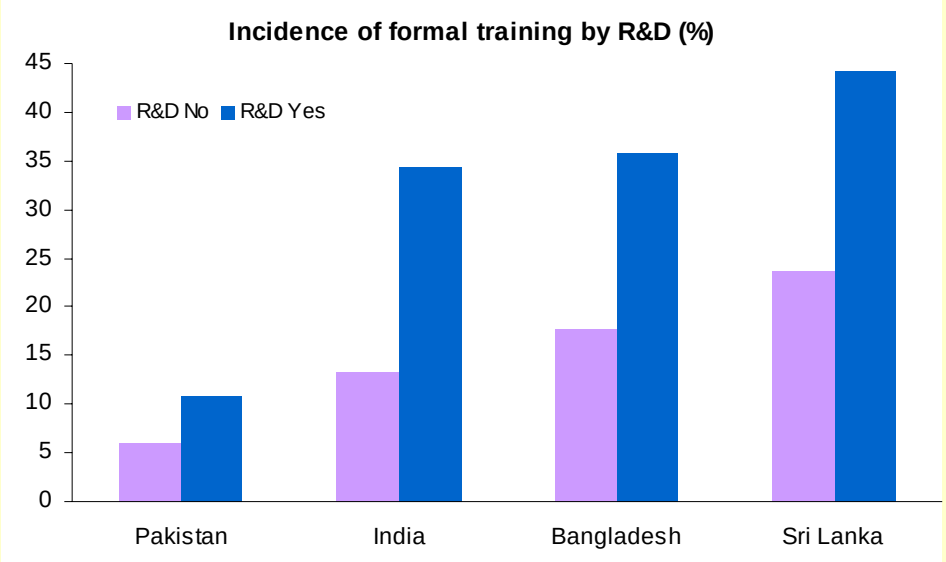


**Figure 36: Sri Lanka has highest prevalence of in-house training for export-oriented firms**




*Source: The Knowledge Economy and Education &Training in South Asia, World Bank 2007*

## Policy Recommendations

**Spending on education needs to increase by a substantial amount, with more of it distributed towards the TEVT sector.** It will be increasingly important for Sri Lanka to focus on the vocational and training levels of education as TEVT will be needed to supply the expanding services industry workforce with individuals who possess specific demand driven skills.

**Education management should be further devolved to the level of individual institutions.** Giving more autonomy to the school system by involving communities and parents to monitor and evaluate the school's performance to a much greater degree while encouraging competition in education, will lead to more quality education, and thus, more knowledgeable individuals entering the workforce.

**Primary and secondary education should focus on teaching students 'how to learn' rather than emphasizing occupation specific knowledge.** Providing students with lifelong learning skills will make them more adaptable to the rapidly changing needs of the market.

**English should be further integrated into the curriculum.** Although Sri Lanka has been making attempts to introduce English into schools through math and science courses, it will be increasingly important to standardize English training in all schools. Giving students the ability to communicate in English will open up many more opportunities for them in the domestic and global community.

**NCOEs should implement standardized courses in IT training for teachers. This should include not only how to use computers, but how to incorporate them into teaching in the classrooms.** Many of the courses being offered through the NCOEs are still crash courses that simply instruct teachers on how to use computers, without showing them new methods of using IT in the classroom. It will be important to reform these courses in an effort to give teachers the tools they need to familiarize their students with IT. This will, in effect, produce a more IT literate population with the skills needed to progress the knowledge economy.

**Teachers' salaries should be increased, and incentives for teachers instructing in difficult areas should be offered.** In order to create a more motivational learning environment for teachers and students, Sri Lanka will need to offer teachers greater incentives including and particularly higher pay.

**University education is too academic and needs to be made more demand driven.** Sri Lanka's university system has not been successful at producing students that are prepared for the world of work. Graduates receive lower salaries than high school levers. It will be increasingly important to reform curricula and ensure a closer link between academia and industry.

**The TEVT sector can be further improved through improved monitoring and strengthening the demand-driven nature of the curriculum and courses.** The TEVT sector, although successfully orienting Sri Lankan students to the workplace, has not been evaluated since its establishment. These institutions need to be assessed in order to determine if their courses and teaching practices are still relevant in the modern economy, and further upgrade them if necessary.