

## ECONOMIC AND SOCIAL INFRASTRUCTURE

### 3.1 Overview

**T**he importance of improving economic and social infrastructure, which is essential to achieve sustained high economic growth and raise living standards of the people, has been well recognised by policymakers and hence, it continues to remain an integral part of the overall development drive.

Benefiting from continuous investments, a gradual improvement can be observed over the years in the country's economic infrastructure, which includes power, transport, roads, highways, ports, water supply, telecommunications, etc. However, the demand for these facilities continues to increase, requiring further investments. Simultaneously, the country has achieved significant improvements in human development, due to the efforts made by successive governments on the provision of social infrastructure, particularly education and health.

Nevertheless, the limitations in the fiscal space could constrain public investments required to expand and improve the quality of infrastructure to fill the country's infrastructure gap. Lower than expected revenue performance

and relatively high recurrent expenditure of the government budget act as impediments to increasing public investment expenditure beyond a certain level despite the legitimate and long standing need for enhancing public investment. The public debt driven model of financing infrastructure projects has its own limitations, given the associated high fiscal deficits and increase in public debt to GDP ratios. It is observed that, given the shortage of public capital, the funding of infrastructure investment projects in a number of countries has increasingly taken the form of equity financing, which is able to attract private capital for infrastructure investments. In this context, there is a need for creating institutional and other conditions to attract private capital to a greater extent in order to finance infrastructure projects, particularly on public private partnership (PPP) basis.

There also remains a strong need to revive the provision of economic infrastructure by state owned business enterprises (SOBES) in the country while giving due consideration to the strategic role played by these entities. The suboptimal performance of SOBES, particularly in the power and energy sector, as well as in the

aviation sector, has been highlighted continuously, particularly with regard to the efficiency, effectiveness, reliability and viability of the current model of managing these entities. This situation underscores the need for carefully revisiting management structures, including corporate governance, as well as the pricing and financial models of these entities, to ensure improved service delivery while reducing the burden on the general public.

**At the same time, enhanced investments in soft infrastructure, particularly health, education and skills development, is essential to achieve inclusive long term growth, as they improve the quality and sustainability of economic growth.** These investments are particularly important given that Sri Lanka is no longer competitive on sectors which depend on low skill and relatively cheap labour. A healthier workforce with market oriented skills is necessary to sustain a high level of economic growth in the future. However, budgetary constraints have affected the adequate enhancement of resource allocation for soft infrastructure and human capital development. Despite budgetary constraints, there is a need for making urgent and innovative reforms in government policies, processes and procedures in providing soft infrastructure, particularly related to education and health, while facilitating the enhanced participation of the private sector appropriately. While the government has a non-transferable role in the provision of essential social services, encouraging the private sector to participate in economic and social infrastructure provision, improving the quality of service delivery and reducing regional disparities would be necessary to achieve the country's growth potential and reduce the burden on the fiscal sector.

**Public sector infrastructure development projects continued in 2015, although the progress was slow due to fiscal constraints, environmental concerns and the governments' stance on reviewing the economic and**

Year	Economic Services		Social Services		Total	
	Rs. billion	% of GDP	Rs. billion	% of GDP	Rs. billion	% of GDP
2011	326.0	4.5	63.4	0.9	389.4	5.4
2012	343.8	3.9	71.2	0.8	415.0	4.8
2013	369.4	3.9	77.6	0.8	447.0	4.7
2014	330.1	3.2	112.3	1.1	442.5	4.2
2015 (a)	429.0	3.8	124.4	1.1	553.4	4.9

(a) Provisional

Sources: Ministry of Finance  
Department of Census and Statistics  
Central Bank of Sri Lanka

**financial viability of ongoing projects in order to maximise benefits of public spending on infrastructure.** Several key infrastructure projects progressed during the year, while a number of other projects were initiated. The government drafted the broad conceptual framework of the Western Region Megapolis Master Plan aiming to develop a Colombo-centred New World Class City inclusive of all modern amenities, and the plan was unveiled in January 2016. Although the Port City Project, which is a project financed by foreign direct investments (FDI), was temporarily halted by the government at the beginning of the year 2015 mainly due to environmental concerns, it, was permitted to recommence in March 2016. Meanwhile, public investment on social infrastructure, aimed at enhancing the capacity and productivity of the country's human capital base, also continued during the year, while the private sector participation increased further.

## **3.2 Economic Infrastructure Policies, Institutional Framework and Performance**

### **Communication Services**

The telecommunication sector continued to progress in line with the remarkable advancements and innovation in the global telecommunications technology, including

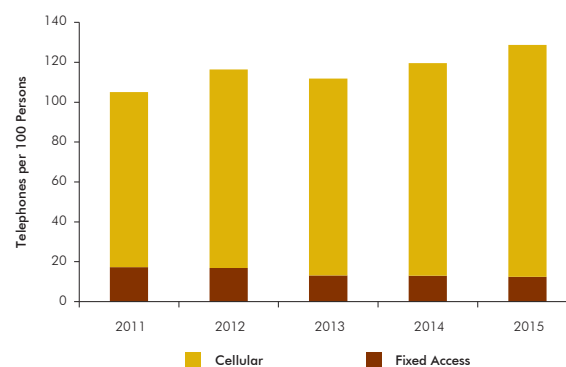
Item	Growth Rate (%)			
	2014	2015(a)	2014	2015(a)
1. Fixed Access Services (No.) ('000)	2,710	2,601	0.1	-4.0
Wireline Telephones in Service	1,123	1,128	5.7	0.5
Wireless Local Loop Telephones	1,587	1,473	-3.5	-7.2
2. Cellular Phones (No.) ('000)	22,123	24,385	8.9	10.2
3. Other Services				
Public Pay Phones (No.)	6,642	5,809	-1.9	-12.5
Internet Connections (No.) ('000) (b)	3,396	4,091	69.0	20.5
4. Telephone Penetration (c)	119.6	128.7	6.9	7.7
Fixed Telephones	13.1	12.4	-0.8	-4.9
Cellular Phones	106.5	116.3	7.9	9.2
5. Internet Penetration	16.4	19.5	67.5	19.3

(a) Provisional  
(b) Including mobile internet services  
(c) Defined as connections per 100 persons

Sources: Telecommunications Regulatory Commission of Sri Lanka  
Department of Census and Statistics

**digitisation, which has created an enormous impact on the products and services.** Telephone and internet services continued to expand during 2015. The number of mobile telephone connections increased by 10.2 per cent, while fixed wireline telephone connections recorded a growth of 0.5 per cent in 2015. However, fixed wireless connections continued its declining trend, recording a drop of 7.2 per cent in 2015, causing a decline in total fixed telephone connections by 4.0 per cent during the year. By end 2015, fixed telephone penetration (connections per 100 persons) and mobile telephone penetration stood at 12.4 and 116.3, respectively. With regard to internet services, total internet connections grew by 20.5 per cent during 2015, raising internet penetration to 19.5.<sup>1</sup> This was largely supported by the rapid growth of 22.2 per cent in mobile internet connections, while fixed internet connections grew by 12.6 per cent. In order to cater to forward-looking data demands, telecom operators took steps to invest in futuristic global connectivity via the new SEA-ME-WE 5 cable system, upgrade the SEA-ME-WE 4 cable system and expand the network, to facilitate a higher data capacity to Sri Lanka. They continued to roll out high speed internet services such as, 4G/Long Term Evolution (LTE)

<sup>1</sup> Access to internet services may be higher as these connections do not reflect ad hoc data users on general telephone connections, while common access points, such as those used by corporates, are considered as single connections, in spite of multiple user access.

**Chart 3.1** Telephone Penetration

and Fibre to the Home (FTTH) services to enhance internet consumers' experiences and ensure future focused investments. Ultrafast fibre-based broadband proposition plans are in the pipeline, to provide services which are consistent, and ensure uninterrupted download and upload speeds and high definition television to Sri Lankans.

**The Telecommunications Regulatory Commission of Sri Lanka (TRCSL) continued to serve as a proactive regulator in 2015.**

The TRCSL commenced the development of e-Agriculture strategy guidelines in collaboration with the International Telecommunication Union (ITU), Food and Agriculture Organisation (FAO), Ministry of Agriculture and other related government institutions. This is expected to address many remaining challenges that impede the deployment of Information and Communication Technology (ICT) for agriculture sector development. With the expert assistance of the ITU, the TRCSL started to review the telecommunication sector licensing framework of Sri Lanka in December 2015 and continued the process with support from the stakeholders. One of the main objectives of the TRCSL is to ensure the provision of reliable and efficient national and international telecommunication services in Sri Lanka. In line with this objective, different categories of service providers were introduced to the industry by granting licenses. As at end 2015, 38 such licenses have been granted across 11 different

categories. The TRCSL introduced common floor rates for call charges and Short Message Service/Multimedia Messaging Service (SMS/MMS), with effect from February 2016, for new connections, with a view to ensure that small mobile operators remain competitive. Accordingly, per minute charges on the same network were raised by 50 cents and those among networks were reduced by 50 cents, bringing both rates to Rs. 1.50. per minute. Further, per second charges were revised to Rs. 1.80 per minute while SMS/MMS charges were revised to Rs. 0.20, across all networks. Meanwhile, Sri Lanka has been ranked as the cheapest country to own a mobile phone by the ITU in terms of value, as per the Measuring the Information Society Report of 2015. Further, the ITU has also ranked Sri Lanka among the top 5 for all forms of the cheapest internet broadband prices. Meanwhile, construction of the Colombo Lotus Tower, which is being built under the purview of the TRCSL is expected to be completed in 2017, continued during the year. The Tower will facilitate 50 digital video broadcasting and 50 FM channels, supporting co-location broadcasting facilities, covering Colombo and its suburbs.

**The Information and Communication Technology Agency (ICTA) continued to actively promote the increased adoption of ICT services in the country.** Under the Free Wi-Fi Initiative, the ICTA completed over 200 Wi-Fi locations providing free internet access at main bus stands, common shopping centres, government organisations, railway stations, public libraries, hospitals, universities and other public places, while 1,005 Nenasala Centres operated islandwide providing increased opportunities to the rural community to access ICT services. Further, the ICTA continued developing websites for government organisations while implementing pilot sites for three local government bodies under the e-Local Government project. Several government e-Services such as online Police Clearance Certificate Issuance Service a mobile application for the Department of Motor Traffic to monitor vehicle information, expansion of the online

Revenue License service to the Eastern, Northern Western, Sabaragamuwa and Central Provinces were developed during the year. Meanwhile, Sri Lanka became the first country in South Asia and the second country in Asia to join the Budapest Convention on Cybercrime, which will facilitate the investigation of cybercrime offences. Further, the ICTA conducted several seminars to enhance awareness amongst school children and university students on innovation and entrepreneurship in the IT sector and careers in the IT and Business Process Management (BPM) sectors. Meantime, the Government Information Center (GIC) currently provides information and guidance for more than 2,000 government services through phone calls while [www.gov.lk](http://www.gov.lk), the official web portal of the government of Sri Lanka, provides more than 150 online services such as exam results, train schedules, flight details, economic indicators and medical services. Such outreach approaches enhanced Sri Lanka's e-government service delivery and uplifted its ranking to 74 in 2014 in the E-Government Development Index (EGDI), from 115 recorded in 2012, as reported by the latest United Nations e-Government Survey conducted in 2014. The ICTA with its new 3 year strategy (2016-2018) and ICT road-map for the country has recognised projects to improve and strengthen the functions of the e-Population Register. The necessary projects have been conceptualised and approved by the Department of National Planning and the budgetary allocations have been provided from the 2016 budget. Out of the several objectives of the project, the issuance of a unique Personal Identification Number called Sri Lanka Identification Number (SLIN) at birth for all citizens is notable. Most of the challenges faced by Registrar General's Department (RGD) could also be accommodated and resolved through the scope of these new projects by the ICTA.

**Marking a significant milestone in the development of Sri Lanka's ICT industry, the government and Google Inc. signed an agreement to initiate the 'Google Loon project'**

**in July 2015, which will cover the entire island with 4G internet.** The successful implementation of this project, which is currently at the testing stage, will provide Sri Lanka with universal internet access, and is expected to enhance accessibility to high-speed, affordable internet across the island. Further, this will reduce the network infrastructure cost of domestic internet service providers, enabling the provision of low cost internet access. Moreover, this will open up the industry for competition based on innovation and service delivery, as service providers are likely to focus more on new business models with high value addition such as end-to-end solutions and further improvements in mobile payments technology. Universal internet access would significantly enhance financial inclusion, while enabling increased socio-economic integration. In addition, it will lead to the evolution of e-learning solutions, facilitating improved access to education opportunities for underprivileged communities. Further, the project will facilitate the expansion of Information Technology Enabled Services (ITES) such as Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO) around the country. Meanwhile, telecom operators continued their efforts to promote active usage of ICT services in economic activities through several applications such as mLearning, Near Field Communication (NFC) services, mobile and e-banking, mobile points of sale (POS), cloud services and tracking solutions.

**The Department of Posts (DOP) expanded its service delivery during the year, particularly with PPP arrangements.** Exploiting the business opportunities available, owing to the unique capability of last-mile service delivery and extensive and efficient outreach around the island, the DOP was able to continue with providing agency services such as selected banking, insurance, telecommunication services for various government, semi-government and private sector institutions. Such developments could help improve the financial performance of the DOP, which has

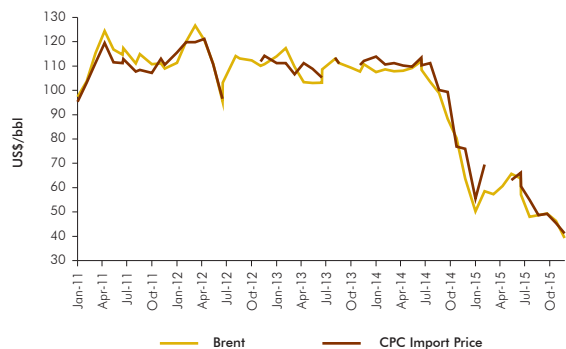
been reporting continued operational losses. The operating loss of the DOP increased by 69.1 per cent to Rs. 5.0 billion in 2015, compared to the loss of Rs. 3.0 billion in 2014, due to the increased availability of alternative communication modes. This was the net outcome of the increase in total revenue (provisional) by 2.3 per cent to Rs. 6.7 billion and the increase in operating expenditure by 23.2 per cent to Rs. 11.8 billion. Further, the DOP has also continued to provide free services such as facilitating government pension and elderly allowance payments, as a social service. By end 2015, the postal service comprised 653 main post offices, 3,410 sub post offices, 524 agency post offices, 101 rural agency post offices and 4 estate post offices. In the context of increased private participation in profitable sub sectors such as courier services, further efforts are needed to modernise the postal service, replacing old and obsolete instruments including measuring equipment and stamping machines, while upgrading service delivery with efficient information technology based services.

## Petroleum

**International crude oil prices continued its declining trend in 2015.** The average international crude oil price (Brent) fell by 46.1 per cent to US dollars 53.75 per barrel in 2015, from US dollars 99.68 per barrel in 2014. Brent crude oil prices fluctuated between US dollars 36-68 per barrel in 2015. Following the sharp decline in crude oil prices in the second half of 2014, some upward movement was observed in crude oil prices during the first half of 2015, mainly due to the slowdown in the US oil drilling activities and geo-political tensions in the Middle East. However, prices started to decline again from mid 2015, due to the global oil supply glut, as OPEC countries continued to boost crude oil production in the midst of the slowdown, in response to the demand from key emerging market economies including China and a number of advanced economies, including Japan

Chart 3.2

Average Price of Crude Oil (Brent) in the International Market and the Crude Oil Import Price of the CPC



and those in the Euro zone. By end 2015, with the US Federal Reserve increasing its policy interest rate for the first time in nearly a decade and the discussions on lifting of sanctions against Iran nearing conclusion, Brent crude oil prices fell to US dollars 36.38 per barrel, its lowest level recorded since 2009. Broadly following the international price trends, the average price of crude oil imported by the Ceylon Petroleum Corporation (CPC) also declined by 47.6 per cent to US dollars 54.80 per barrel in 2015, from US dollars 104.53 per barrel recorded in 2014. The average import price of total refined petroleum products declined by 38.8 per cent to US dollars 542.61 per MT in 2015 from US dollars 886.26 per MT in 2014. Meanwhile, international oil prices declined further in January 2016, and the Brent crude oil price reached a 12-year low of US dollars 28.09 per barrel on 21 January 2016. Some upward movement of international oil prices has been observed thereafter.

**Domestic retail prices of petroleum products were reduced substantially in January 2015, in response to declining international oil prices.** In January 2015, domestic prices of petrol (92-octane), petrol (95-octane), auto diesel, super diesel and kerosene were reduced by Rs. 33, Rs. 30, Rs. 16, Rs. 23 and Rs. 22 per litre, respectively. In addition, in early 2015, the price of furnace oil used for power generation was also reduced to

Rs. 80 per litre, from Rs. 90 per litre. In November 2015, the price of kerosene was further reduced by Rs. 10 per litre, in order to pass the benefit of low international oil prices to the economically vulnerable segments of the population.

**The substantial reduction in domestic petroleum prices in early 2015 and the increased number of vehicles in the country raised the domestic demand for petroleum from the transportation sector.** Local sales of petrol grew by 20.9 per cent, reflecting an increased demand from the transportation sector. The sale of diesel to the transportation sector increased by 3.0 per cent during the year, although the total sales of diesel decreased by 7.7 per cent due to reduced fuel oil based power generation owing to high hydro and coal power generation. Meanwhile, kerosene sales grew by 6.5 per cent during the year, in comparison to the contraction of 3.4 per cent in 2014, with low prices encouraging the use of kerosene for fishery activities, other industrial purposes and cooking purposes, particularly in the rural and estate sectors.

**In spite of falling international oil prices, the CPC's financial position weakened during the year.** As per the provisional financial statements, the CPC reported a loss of Rs. 18.4 billion in 2015, compared to a marginal profit of Rs. 1.5 billion in 2014. The main contributory factors for the weakening of the financial position of the CPC included the substantial reduction of domestic petroleum prices at the beginning of the year without a commensurate duty reduction and the depreciation of the rupee during the latter part of the year, which enlarged the CPC's trade payables and liabilities to the banking sector. Further, the losses include a Rs. 6.2 billion incurred due to exports of excess furnace oil and naphtha, owing to the lower domestic demand for such byproducts of the CPC's refinery. Although there was a notable buildup of the CPC rupee deposits with the banking sector

Table 3.3

## Petroleum Sector Performance

Item	2014	2015(a)	Growth Rate (%)	
			2014	2015(a)
Quantity Imported (MT '000)				
Crude Oil	1,824	1,763	4.6	-3.4
Refined Products	3,385	3,321	16.4	-1.9
Coal	1,608	1,883	9.5	17.1
L.P. Gas	198	277	0.6	39.9
Domestic L.P. Gas Production (MT '000)	28	10	27.3	-64.3
Value of Imports (CIF)				
Crude Oil (Rs. million)	187,760	100,578	3.1	-46.4
(US\$ million)	1,438	739	1.8	-48.6
Refined Products (Rs. million)	391,651	244,148	11.0	-37.7
(US\$ million)	3,000	1,802	9.8	-39.9
Coal (Rs. million)	20,739	21,613	-0.7	4.2
(US\$ million)	159	159	-1.8	0.1
L.P. Gas (Rs. million)	25,876	22,326	-3.9	-13.7
(US\$ million)	198	164	-4.9	-17.1
Average Price of Crude Oil (CIF)				
(Rs./barrel)	13,646	7,459	-3.6	-45.3
(US\$/barrel)	104.53	54.80	-4.8	-47.6
Quantity of Exports (MT '000)	398	908	-22.2	128.2
Value of Exports (Rs. million)	44,132	50,461	-19.9	14.3
(US\$ million)	338	374	-21.0	10.6
Local Sales - Refined Products (MT '000)	4,404	4,124	10.6	-6.4
o/w Petrol (92 Octane) (b)	767	911	4.7	18.7
Petrol (95 Octane)	69	100	25.3	45.5
Auto Diesel	1,947	1,779	14.2	-8.6
Super Diesel (c)	61	74	21.6	21.2
Kerosene	122	130	-3.4	6.5
Furnace Oil	915	630	10.7	-31.2
Avtur	391	382	8.5	-2.3
Naphtha	94	99	30.3	5.7
Local Sales - L.P. Gas (MT '000)	232	293	6.4	26.5
Local Price (End Period) (Rs./litre)				
Petrol (92 Octane)	150.00	117.00	-7.4	-22.0
Petrol (95 Octane)	158.00	128.00	-7.1	-19.0
Auto Diesel	111.00	95.00	-8.3	-14.4
Super Diesel	133.00	110.00	-8.3	-17.3
Kerosene	81.00	49.00	-23.6	-39.5
Furnace Oil				
800 Seconds	92.20	82.20	0.0	-10.8
1,500 Seconds	90.00	80.00	0.0	-11.1
3,500 Seconds	90.00	80.00	0.0	-11.1
L.P. Gas (Rs./kg)				
Litro Gas	151.68	107.68	-20.9	-29.0
Laugfs Gas	151.68	107.68	-20.9	-29.0
International Market Crude Oil Prices (US\$/bbl)				
Brent	99.68	53.75	-8.7	-46.1
WTI	93.14	48.91	-5.0	-47.5
World Oil Supply (million barrels per day)	93.7	96.4	2.5	2.9
World Oil Demand (million barrels per day)	92.8	94.4	1.0	1.7

(a) Provisional  
(b) Including XtraPremium Euro 3  
(c) Including XtraMile Diesel

Sources: Ceylon Petroleum Corporation  
Lanka IOC PLC  
Lanka Marine Services (Pvt.) Ltd  
Litro Gas Lanka Ltd  
Laugfs Gas PLC  
Sri Lanka Customs  
Reuters  
International Energy Agency

particularly in the first eight months of the year, its total gross liabilities to the banking sector, increased by Rs. 18.9 billion to Rs. 264.5 billion during the year, partly reflecting the impact of the rupee depreciation on the US dollar denominated borrowings of the

CPC. Meanwhile, improved debt collection helped the CPC to reduce outstanding trade receivables from government entities to Rs. 16.7 billion at end 2015, from Rs. 30.8 billion at end 2014.

**Introduction of an appropriate pricing formula for domestic petroleum products is essential to improve the financial viability of the CPC.** International oil prices are volatile and unpredictable as they are constantly exposed to global supply and demand shocks arising from changing geopolitical conditions and speculative decisions of major oil suppliers. Therefore, maintaining a constant price for domestic petroleum products for long periods creates a burden either on domestic oil suppliers or consumers. A pricing formula could provide a market based solution to this issue, while ensuring transparency in petroleum pricing. Meanwhile, the reduction in the consumption of furnace oil and naphtha by the Ceylon Electricity Board (CEB) largely due to increased coal power generation, affected the demand for such byproducts of the CPC's refinery. Therefore, it is necessary to find other avenues to utilise the by products of the refinery in order to ensure the viability of refinery operations. Meanwhile, the oil refinery at Sapugaskanda needs to be revamped in order to make it economically viable and more environmental friendly.

**Sri Lanka's petroleum exploration efforts were renewed during the year, with the government's decisions to further explore and develop the natural gas discovered in the Mannar Basin and expedite exploration in other areas.** In 2015, the approval of the Cabinet of Ministers was granted to enter into an agreement with WesternGeco Seismic Holdings Limited for modern reprocessing and imaging of Mannar 2D data, and with ARKeX Ltd for an airborne gravity magnetic survey on a multi-client basis. Further, approval was granted to select a suitable investor

and expedite further exploration, development and production of Natural Gas in the Mannar block M2 and evaluate the bids received for the second Licensing Round, which was closed in November 2013. If this natural gas potential is tapped in time and proven to be commercially viable, the commercial operations from the M2 block could possibly begin by 2020. If the gas commercialisation process is successful, it is expected to initially result in the replacement of a significant component of imported distillate with domestic gas in our power generation mix, with subsequent application in both the transport and domestic sectors. In February 2016, the government entered into a joint study agreement with Total E&P, a multinational giant in the petroleum sector, to carry out preliminary exploration work in two ultra-deep water blocks located off the East coast. Meanwhile, Cairn Lanka ended its oil and gas exploration commitment in the Mannar basin in October 2015, after seven years of exploration partnership with the government, as a result of a policy decision taken by its parent company in view of the global downturn in the energy industry. In spite of the exit of Cairn Lanka, its oil exploration efforts have provided the country valuable information on its petroleum resources and strengthened building local capacities in the petroleum sector.

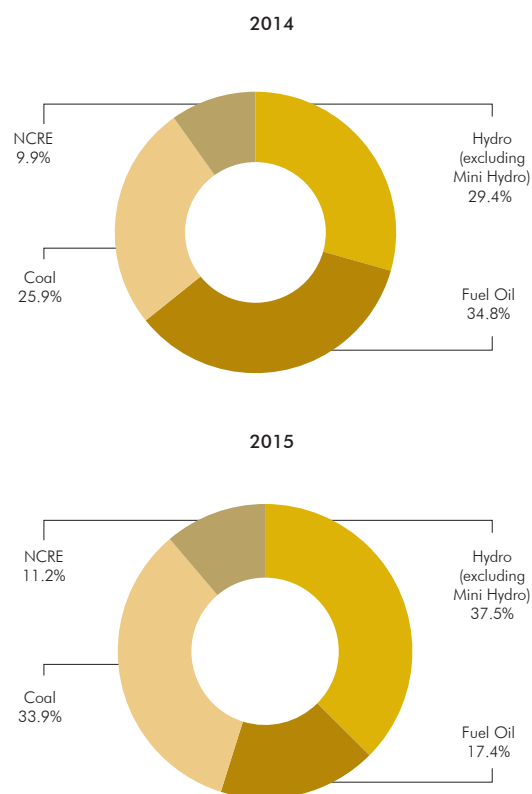
## Electricity

**Electricity sales increased by 6.5 per cent to 11,786 GWh in 2015, in comparison to the growth of 4.2 per cent in 2014.** Increased sales were mainly due to the growth in the 'Domestic' category, partly reflecting the substantial downward revision to the domestic electricity tariff in September 2014 and the increase in the number of consumers by 4.0 per cent. Sales to the 'Domestic' category, which accounted

for 37.6 per cent of electricity sales in 2015, increased by 9.7 per cent. Sales to the 'Industry' category which accounted for 32.8 per cent of total electricity sales, grew by 3.2 per cent in 2015. Meantime, sales to 'General Purposes', 'Hotel' and 'Government' categories, which account for 23.5 per cent, 2.2 per cent and 1.3 per cent of sales, respectively, also recorded increases of 6.1 per cent, 6.7 per cent and 13.3 per cent, respectively.

**Total electricity generation in 2015 increased by 5.9 per cent to 13,090 GWh, from 12,357 GWh in 2014, facilitating the increased demand for energy.** Hydropower generation (excluding mini-hydro generation) increased by 35.0 per cent during the year to 4,904 GWh supported by increased rainfall during the early and latter parts of the year. Reflecting the enhanced capacity of the Norochcholai coal

**Chart 3.3** Electricity Generation Mix





**Table 3.4** Electricity Sector Performance

Item			Growth Rate (%)	
	2014	2015(a)	2014	2015(a)
Installed Capacity (MW)	3,932	3,850	17.0	-2.1
Hydro (b)	1,377	1,377	1.2	0.0
Fuel Oil (c)	1,215	1,115	-9.0	-8.2
Coal	900	900	200.0	0.0
NCRE (d)	440	458	20.4	4.1
Units Generated (GWh)	12,357	13,090	3.9	5.9
Hydro (b)	3,632	4,904	-39.4	35.0
Fuel Oil (c)	4,305	2,276	32.1	-47.1
Coal	3,202	4,443	118.0	38.8
NCRE (d)	1,217	1,466	3.3	20.4
Total Sales by CEB (GWh)	11,063	11,786	4.2	6.5
Domestic and Religious	3,585	3,943	1.1	10.0
Industrial	3,498	3,608	4.6	3.1
General Purpose and Hotel (e)	2,520	2,681	8.8	6.4
Street Lighting	108	108	0.0	0.0
Bulk Sales to LECO	1,352	1,446	3.4	6.9
LECO Sales (GWh)	1,271	1,352	-0.9	6.4
Domestic and Religious	527	565	-5.0	7.2
Industrial	252	264	3.3	4.8
General Purpose and Hotel (e)	466	497	4.5	6.7
Street Lighting	26	26	-31.6	0.0
Overall Transmission and Distribution Loss of CEB (%)	10.5	10.0	-2.4	-4.5
Number of Consumers ('000) (f)	5,929	6,171	3.7	4.1
o/w Domestic and Religious	5,235	5,444	3.7	4.0
Industrial	58	60	2.5	3.4
General Purpose and Hotel (e)	633	665	4.2	5.1

(a) Provisional  
(b) Excluding mini hydro power plants  
(c) Inclusive of Independent Power Producers (IPPs)  
(d) Refers to Non-Conventional Renewable Energy including mini hydro  
(e) Inclusive of sales to government category  
(f) Inclusive of LECO consumers

Sources: Ceylon Electricity Board (CEB)  
Lanka Electricity Company (Pvt.) Ltd. (LECO)

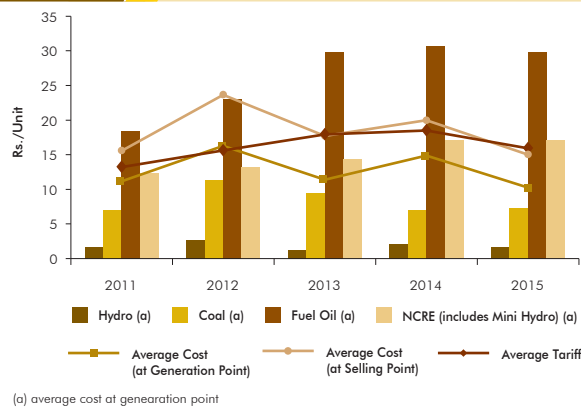
power plant, coal power generation increased substantially by 38.8 per cent to 4,443 GWh during the year. The cumulative effect of increased hydro and coal power generation helped to lower fuel oil generation by 47.1 per cent to 2,276 GWh during the year. Meanwhile, the generation of electricity through non-conventional renewable energy (NCRE) sources, including mini-hydro generation, increased by 20.4 per cent to 1,466 GWh. Accordingly, of total generation, the share of hydro, fuel oil, coal and NCRE power generation was 37 per cent, 17 per cent, 34 per cent and 11 per cent, respectively. The share of power generated by the CEB within total power generation increased to 79 per cent in 2015, compared to 69 per cent in 2014, while the remainder was purchased from Independent Power Producers (IPPs). The

overall transmission and distribution loss, as a percentage of total power generation reduced to 10.0 per cent in 2015, from 10.5 per cent in the previous year and from 17 per cent in 2005. Meanwhile, coal power generation continued to face issues in relation to storage capacity limitations during the periods with rough sea conditions and frequent interruptions, and these issues need to be addressed on a priority basis.

**Despite the tariff reductions effected in late 2014, the financial position of the CEB improved significantly and recorded profits during the year 2015.** This was largely supported by the improved generation mix attributed to increased hydro and coal power generation. According to provisional financial data, the CEB recorded an operating profit of Rs. 20.1 billion in 2015, in comparison to an operating loss of Rs. 14.6 billion in 2014. The low fuel oil power generation requirement, driven by increased hydro and coal power availability, reduced the CEB's cost on fuel significantly by 50.4 per cent, to Rs. 23.1 billion in 2015. Hence, the CEB's average cost at selling point reduced to Rs. 15.01 per unit in 2015, in comparison to Rs. 19.97 per unit in 2014, considering all cost components. The overall average tariff reduced to Rs. 15.94 per unit in 2015, in comparison to Rs. 18.50 per unit in 2014. However, the optimal use of hydro and coal power sources through minimised overflows in reservoirs and appropriate timing of maintenance stoppages, is vital in order to further enhance the financial viability of the CEB. Meanwhile, the CEB's short term borrowing from banks and other short-term liabilities to the CPC and IPPs declined considerably by Rs. 25.4 billion to Rs. 56.9 billion by end 2015, reflecting the improvement of profitability of the CEB, although long term outstanding liabilities, mainly to the banking sector and the government, stood at Rs. 302.9 billion at end 2015.

Chart 3.4

## Average Cost and Average Tariff of Electricity



When all three units of the Norochcholai coal power plant are operated at full capacity, coal power can meet more than 40 per cent of the total electricity requirement of the country, thereby strengthening low cost power generation. The average cost of coal power generation was Rs. 7.33 per unit in 2015 while the average cost of hydropower, fuel oil and NCRE stood at Rs. 1.70 per unit, Rs. 29.82 per unit and Rs. 17.06 per unit, respectively. Hence, the overall average cost at generation point was recorded at Rs. 10.24 per unit in 2015, in comparison to Rs. 14.87 per unit in 2014. The resultant lower average unit cost of electricity enabled the CEB to effectively counter fluctuations of hydropower generation, which was affected by adverse weather conditions, without increasing tariffs. Meanwhile, the average tariff of 'Domestic', 'Industry', 'General Purpose' and 'Hotel' categories stood at Rs. 12.87 per unit, Rs. 14.82 per unit, Rs. 23.96 per unit and Rs. 17.74 per unit, respectively, during the year 2015. An optional tariff, based on time of use, was introduced with effect from September 2015, for domestic users of 3-phase (30 A or above) power supply, with a view to encourage the utilisation of electricity during off peak hours for purposes such as charging electric vehicles.

Construction work of several major power projects was in progress during the year. The Uma Oya Multipurpose Development Project was recommenced in late 2015, subsequently to the recommendation of the Cabinet Sub Committee to evaluate the project. The physical progress of the Uma Oya Hydro Power Plant with an expected capacity of 120 MW, was 53 per cent by end 2015, and the plant is expected to be completed and commissioned by end 2017. The construction of a 500 MW coal power plant in Trincomalee will start by the end of 2016 and is expected to be completed and commissioned by 2020. Further, the construction of the proposed 100 MW wind power plant on the Mannar Island is expected to begin in 2018. These developments in the electricity sector will further strengthen the low cost electricity generation of the country. Meanwhile, the CEB's continuous efforts during 2015, helped the completion of 337 rural electrification projects covering all districts, and the electrification of 61,018 houses, raising the level of electrification of the country to 98.5 per cent by end 2015, compared to 98.4 per cent at end 2014.

The initial target of the national energy policy to generate 10 per cent of total electricity via NCRE by 2015 was successfully achieved in 2015 with a contribution of 11.2 per cent of the total power generation, compared to 9.9 per cent in 2014. During the year, the total NCRE installed capacity increased by 18 MW and accordingly, by the end of 2015, the country had installed capacity of 306.7 MW of mini-hydro power, 126.9 MW of wind power, 13.1 MW of biomass power, 10.5 MW of dendro power and 1.4 MW of solar power connected to the national grid. In addition, the CEB signed contracts for 26 NCRE projects, with a collective capacity of 41 MW, during 2015. A target of 20 per cent of total electricity generation has been set for NCRE generation by 2020, which requires increased efforts to harness the

## BOX 4

## Renewable Energy for Electricity Generation

## Introduction

Over the last decade, there has been a growing interest towards using renewable energy<sup>1</sup> in both developed and developing countries, realising its sustainability, economic benefits and more importantly, its less adverse impact on the environment. Hence, the share of renewable energy to total world electricity generation has increased to 23.6 per cent in 2014 in comparison to 19.4 per cent in 2005.

## Benefits of Renewable Energy Development

Renewable energy offers multi-faceted benefits from its very nature that include sustainability, climate safe future, augmenting economic growth, creating new jobs and enhancing human welfare. The renewables play an important role in contributing towards the transition to low-carbon growth through decarbonising the global energy mix. During the last few decades, the demand for electricity generation has boosted at a higher rate than the population growth due to improved quality of life across the globe. A large part of this increased demand was met through burning fossil fuel damaging the environment. Hence, there is a growing consensus on the threat of climate change brought on by increasing atmospheric concentrations of greenhouse gases, encouraging worldwide efforts to reduce emissions. The average Carbon-Dioxide (CO<sub>2</sub>) emission intensity of power generation through coal, fuel oil and natural gas are 960, 800 and 450 grams per kWh, respectively, while renewables ensures zero emission<sup>2</sup>. The seventh goal of Sustainable Development Goals (SDGs) of United Nations (UN) emphasises the development of renewable energy while ensuring economic growth imperative to decarbonised economies across the globe. Enhancement of the share of renewable energy will significantly reduce CO<sub>2</sub> emissions, thereby, slower the rise in global temperatures preventing catastrophic climate change.

The role of renewable energy has become even more important in the context of sustainable development and energy security. The International Renewable Energy Agency (IRENA) forecasts that doubling the share of renewables in the global energy mix by 2030 would increase global GDP by up to 1.1 per cent supported by a higher rate of electrification of end uses. Encouraging renewable energy generation helps to improve trade balances stemming from the ripple effects on economies of oil importing countries together with improved energy security due to a greater reliance on indigenous sources, mostly available almost at zero cost, while creating

local value addition and employment opportunities. Development of renewable energy creates jobs than fossil fuel technologies which are not only for highly skilled workforce, but also for low income groups through community based approaches. For example, solar photovoltaic deployment creates twofold jobs compared with coal or natural gas. Most of the jobs are created from fuel supply such as firewood for bioenergy and equipment installation and manufacturing together with home grown technologies along their value chains. Further, renewable technologies are suited to rural and remote areas due to its capability of providing off-grid services and lower transmission losses, thereby promoting productive uses, spurring education, allowing access to modern communications and offering a host of new opportunities that can facilitate rural development while reducing poverty.

## Composition of Electricity Generation and the National Energy Policy

Electricity generation in Sri Lanka was primarily driven by hydropower till late 1990s. However, the increasing demand for electricity in line with the economic growth and increasing electrification, thermal power plants were added to the national grid from early 1980s.<sup>3</sup> By end 2015, Sri Lanka's major hydropower installed capacity was 1,377 MW while fuel oil, coal and nonconventional renewable energy (NCRE) installed capacities were 1,115 MW, 900 MW and 458 MW, respectively. NCRE comprised 306.7 MW of mini-hydropower, 126.9 MW of wind power, 13.1 MW of biomass power, 10.5 MW of dendro<sup>4</sup> power and 1.4 MW of solar power.

Sri Lanka has already exploited its major hydropower potential and only 186 MW of more capacity could be added to the system through the major ongoing projects. Therefore, the national energy policy and strategies of Sri Lanka currently focused on NCREs. The initial target of national energy policy to generate 10 per cent of total electricity generation via NCRE by 2015 has now been successfully achieved with a contribution of 11.2 per cent compared to 3.7 per cent recorded in 2006, when the initial policy target was set. Later, the target was revised to 20 per cent to be achieved by 2020. The recently formulated Sri Lanka Energy Sector Development Plan for a Knowledge-based Economy: 2015-2025 by the government, envisages to develop the full potential of renewables and other indigenous resources in order to become a nation self-sufficient in energy by 2030. This has set up several targets such as increasing the share of renewables in primary energy supply<sup>5</sup> from 3 per cent in 2013 to 34 per cent by 2030,

1 Renewable energy is a form of energy that emanates from resources which replenish naturally on a human timescale, such as sunlight, wind, rain, tides, waves and geothermal heat.

2 Biomass is almost carbon neutral on net basis, as the carbon emissions released during combustion are recaptured during re-growth of trees.

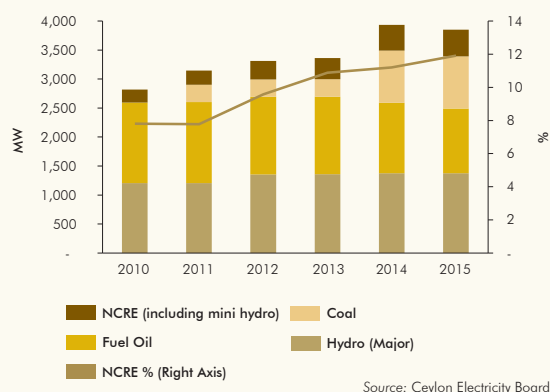
3 Chunnakam thermal power plant was established in 1958 to electrify Jaffna Peninsula, however, Jaffna had not been connected to the National Grid till 1973.

4 Dendro power is the generation of electricity from sustainably grown biomass.

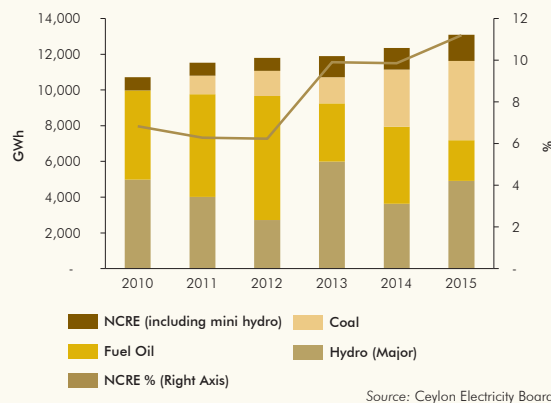
5 Excluding hydro and biomass used as firewood.

electricity generation from renewable energy to 60 per cent by 2020 and biomass electricity generation and reducing the carbon footprint of the energy sector by 5 per cent by 2025. NCRE is expected to comprise with 873 MW of mini-hydropower, 401 MW of wind power, 161 MW of solar power and 153 MW of biomass power by 2030 in achieving those targets.

**Chart B 4.1** Installed Capacity



**Chart B 4.2** Electricity Generation

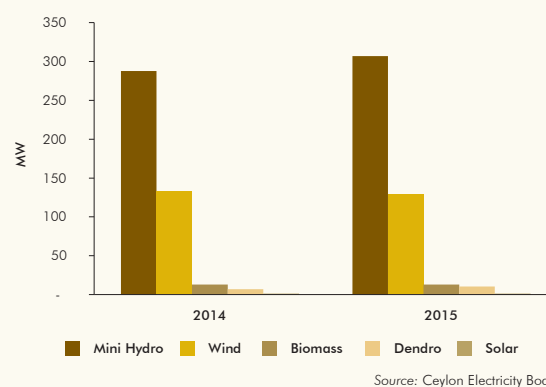


### Opportunities Available for the Development of NCRE Sector

The country has achieved its first milestone of 10 per cent of total electricity generation via NCRE by 2015. However, it depends on weather conditions as mini hydro contributes to 66.9 per cent out of current total NCRE installed capacity. Hence, Sri Lanka has to reap the vast NCRE resources available as a natural inheritance in the country, to achieve the targets, despite it is being immensely challenged by the expected high growth in electricity demand. Although, Sri Lanka has already tapped all major hydro resources, still there are water conveyance structures particularly to low head turbines which

remain mostly unused while extraction of hydropower potential from irrigation networks remains mostly unattempted. Further, it has been identified that there is over 1 GW wind power potential in the country particularly in Mannar, Puttalam and Jaffna. The vast availability of biomass resources is often left untapped by the electricity industry while agricultural waste and municipal solid waste also carries potential to generate considerable amount of electricity. Moreover, solar power is one of the most appropriate renewable energy sources as a tropical country while considering its high level of scalability and accessibility compared to other renewable energy sources.

**Chart B.4.3** NCRE Installed Capacity



### Challenges Faced in Developing NCRE Sector

Even though Sri Lanka is blessed with many forms of renewable energy sources, efficient utilisation of these resources is challenging due to many issues associated with techno-economic aspects. Renewables are dispersed over vast regions compared to fossil fuels and other finite resources. Hence, barriers in electricity system to integrate such dispersed resources exists as a severe constraint for development of renewable energy sources. This raises concerns over the efficient collection mechanism for successful utilisation. Moreover, there are capacity constraints in the transmission topology which limits the connectable renewable energy plants. Most renewable sources are located in non-industrialised areas, imposing a heavy burden on long transmission lines between points of injection and load centres. Further, renewable energy sources are mostly limited to non-storage energy chains, since storage solutions are yet to become commercial realities. This leads to issues in fulfilling system operation guidelines, which defines limits on non dispatchable power absorption and limits relating to amount of energy from a single source at any given point of time.

In addition to above technical barriers coupled with costly solutions, renewable energy is encircled higher initial costs leads to higher prices which has been above the market energy prices as most of the cost elements are encountered at the outset compared to other modes of power generation. This has caused policy makers' concerns on promoting rapid developments in NCRE. Most of the renewable energy technologies such as wind and solar are yet to be developed for their efficient scale. When considering biomass/dendro power which has been competitive with fossil fuels, it incorporates concerns such as higher need of cooling water which raises environmental constraints while the collection, storage and transportation is also problematic.

### Way Forward

Over the past few years, the renewable energy technologies have grown more robust and more efficient. Energy storage technologies are improving fast. Solar photovoltaic prices have fallen by 80 per cent since 2008 and are expected to keep on declining. The cost of wind electricity has fallen nearly by 30 per cent since 2008, making it the cheapest source of new electricity. These developments have made renewables increasingly attractive globally. Hence, the policy makers have an important role in finding best methods of financing and accelerating its deployment. Large scale deployment of renewable energy such as a large scale wind farm in Mannar and positioning large scale biomass/dendro plants appropriately utilising wide spread network of firewood is vital. Since the investments on renewable energy could already have a long run successful track record in Sri Lanka, financial institutions will support in mobilising long-term and low cost financing while more investors would be attracted if there is a long-term commitment to expand renewables as a larger part of the national energy mix. Further, attracting international cooperation and financial flows will also play a major role thereby responding to the most debatable issue of higher initial cost associated with renewables. When the demand for renewable energy

is sustained and expanded, the industry will gradually be able to bring down the startup costs supported by technological advancements. The choices of competing resources shall be based on a long-term economic cost analysis together with environmental and human health externalities while the pricing policy for energy purchasing can be further strengthened with provisions for frequent cost reflective revisions, improved competitiveness among investors through competitive bidding and scenario based assessments together with avoided costs to offset high cost fuel oil generation.

Identifying innovative standalone applications and promoting micro level projects supported by widely available electricity infrastructure is essential to address issues that arise due to sporadic and dispersed form of renewables. Addressing the barriers arising from the electricity system and transmission topology is apparently complex and time-consuming planning and implementation process. However, this could be overcome through an unwavering policy commitment, which will have to be supported by all concerned agencies and regional political authorities. This nature of policy cohesion will smoothen implementation process which will inspire private sector participants, who are currently affected by the apparent misalignment of such agencies and authorities with the national policy intent. All such steps will facilitate to overcome the techno-economic barriers enabling all stakeholders of the country to realise vast range of medium to long-term benefits offered by renewable energy.

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potential of untapped resources. Mini-hydro potential, wind power potential particularly in Mannar, Puttalam and Jaffna, and biomass resources are often left untapped, while solar power is also being increasingly recognised as one of the most appropriate renewable energy sources for a tropical country like Sri Lanka (For further details, refer Box 4). Meanwhile, the Sri

Lanka Sustainable Energy Authority (SLSEA), which has been engaged actively in promoting energy conservation and assessing indigenous renewable energy sources, was instrumental in saving around 100 GWh by promoting the implementation of energy efficient activities in industrial and commercial sectors.

## Road Development

Road development continued to be a key policy priority of the government in 2015, in recognition of the need to improve the road network to support growing economic activity and reduce regional disparities. The road network of Sri Lanka comprises National Highways (Expressways and A & B class roads), provincial roads (C & D class roads), unclassified local authority roads and other roads, including those maintained by state sector agencies. National Highways cater to more than 80 per cent of traffic in Sri Lanka. During the year 2015, the total length of the roads maintained by the Road Development Authority (RDA), the key agency implementing road projects and maintaining of expressways, highways and bridges, was reported to be 12,380 km. The expenditure incurred by the RDA for road development in 2015 stood at Rs. 144.6 billion, compared to that of Rs. 120.9 billion in 2014.

The completion of extensions to the national expressway network continued while construction work of new expressways was initiated. Phase II of the Colombo Outer Circular Highway (OCH) with 8.9 km of expressway, connecting two interchanges at Kaduwela and Kadawatha with toll plazas, a 4-lane expressway bridge across Kelani river in Kaduwela, 7 bridges and 5 overpasses, were opened to the public in September 2015. Detailed engineering designs of Phase III of the OCH, which connects the Kadawatha interchange and Kerawalapitiya interchange with a link to the Colombo-Katunayake Expressway, and is 9.6 km in length, have been carried out by the RDA, except for structures, soft ground treatment and toll system. During the year, land acquisition, supervision consultancy, survey and field testing of the project continued though civil construction work is yet to commence. The extension of the Southern Expressway from Matara to Hambantota, with links to Hambantota

Port and Mattala Airport, was initiated in July 2015, to provide fast connectivity between Colombo, the Business Capital of the country, and these destinations. The total length of the extension is 96 km, with 4 separate sections connecting Matara – Beliatta – Wetiya – Andarawewa and Hambantota. Meanwhile, the Central Expressway Project (CEP) was inaugurated in August 2015. The newly proposed expressway is a combination of the previously proposed two expressways. i.e., the Kadawata – Gampaha segment follows the same alignment of the previously proposed Colombo – Kandy Alternate Highway (CKAH) trace, and beyond Gampaha follows the Northern Expressway (NEP) trace. The CEP will extend through Gampaha, Meerigama, Pothuhera, Kurunegala, Melsiripura, Galewela up to Dambulla, with an expressway link to Kandy via Pothuhera, Rambukkana, and Galagedara. The amalgamation of the two feasibility studies (CKAH & NEP) was completed and the Central Environmental Authority (CEA) finalised the Environmental Impact Assessment (EIA) report, incorporating previous studies. A comprehensive hydrology study is being carried out and detailed designs are to be completed by April 2016. Preliminary designs of the CEP were completed while land acquisition for the same is in progress.

Several road construction, rehabilitation and maintenance projects were in progress during 2015. The Rehabilitation and improvement of roads and bridges were carried out, including initiatives of the Road Sector Assistance Project II (Phase II), National Highways Sector Project, Southern Road Connectivity Project, and Northern Road Connectivity Project (NRCP). The NRCP, implemented by the government, with assistance from the Asian Development Bank (ADB) to rehabilitate and improve link roads in the Northern region, rehabilitated 169.9 km of national highways consisting of 128.5 km of Class A roads and 41.4 km of Class B roads in the Northern Province and North

Central Province. Many of these road development projects are implemented with bilateral funding arrangements with Japan, China, Korea, Saudi Arabia and Kuwait, and assistance from multilateral agencies such as the World Bank and ADB. The United Kingdom and France continued to provide financial assistance for the construction and rehabilitation of regional bridges and steel flyovers in 2015. Further, a loan agreement has been signed with the Kuwait Fund for Arab Economic Development (KFAED) for the reconstruction of 25 bridges on national highways. The government, with the assistance of ADB, commenced an Integrated Road (i-ROAD) Investment Programme, which will enhance connectivity by improving rural access roads to all-weather standards. Under the i-ROAD Programme, about 2,548 km of rural access roads and provincial roads, and 118 km of national roads are expected to be rehabilitated, followed by a mandatory maintenance of the completed provincial and rural roads for a period of three years, while the selected national highways will be maintained and managed over a period of seven years, as per the Output and Performance-based Road Contracts (OPRC) concept. The project is funded by the ADB through a Multi-tranche Financing Facility (MFF) of US\$ 800 million, planned to be released in six tranches from 2014 to 2020 and the survey and preliminary engineering activities for these roads have already been completed. Meanwhile, a total of Rs. 5.0 billion was allocated to provincial directors of the RDA for carrying out routine, periodic and urgent improvement works under the Maintenance Programme for the year 2015. The total expenditure on the maintenance of the national road network (including bridges) amounted to Rs. 4.3 billion during the year. The Maga Neguma Rural Road Development Programme also continued in several districts, rehabilitating a total length of 456.6 km of rural roads, with related supportive structures, such as side drains, retaining walls, rural bridges,

culverts and causeways, at a cost of Rs. 4.4 billion, during 2015. It has been proposed to construct an elevated highway network in Colombo to reduce traffic congestion and to improve road connectivity between suburbs and expressways. Accordingly, in March 2016, the Cabinet of Ministers approved the proposal to build an elevated highway of 5.8 km at an estimated cost of Rs. 36 billion, from New Kelani Bridge, Peliyagoda to Colombo Fort connecting the Colombo Fort area with the expressway network. In addition, the Cabinet of Ministers approved a proposal to construct a 6.9 km long road with 4 lanes from the New Kelani Bridge to Rajagiriya. It will be connected with the Outer Circular Highway in the second phase and its Northern end will connect to the Katunayake Expressway.

**A number of measures were taken to reduce traffic congestion in major cities and improve road safety.** In the absence of an efficient public transportation system, traffic volumes continued to exceed the capacity of roads, and the resultant congestion has been aggravated by the misuse of road space, unauthorised roadside parking and indiscipline driving. The Sri Lanka Police commenced the strict enforcement of traffic lane laws in order to improve discipline on roads in November 2015. Other measures implemented to reduce traffic congestion during the year 2015 included the rearrangement of signal timing of traffic light systems, the expansion of traffic signal systems, traffic signs, road markings, bus bays and parking bays. The Colombo Municipal Council (CMC) is expected to install solar powered parking meters in selected locations of the city. A technical assistance project for the establishment of an Advanced Traffic Management System (ATMS) in the Colombo Metropolitan Region, under the Korea International Cooperation Agency (KOICA) assistance, is in progress. Under this project, a Centralised Traffic Control System with advanced traffic management features is expected to be developed. At present, the project is at a detailed design stage.

## Road Passenger Transportation

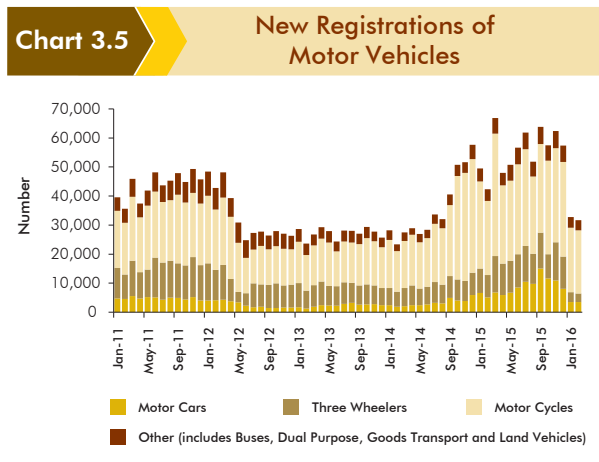
**Public road passenger transportation displayed some progress during the year 2015.**

With the addition of new buses to its fleet, the total operated kilometrage of buses operated by the Sri Lanka Transport Board (SLTB) increased by 18.6 per cent to 440 million km, while total passenger kilometrage increased by 19.6 per cent to 15.2 billion km during 2015. The average number of buses operated per day by the SLTB improved sharply by 1,044 to 5,270 in 2015. The total number of buses owned by the SLTB increased by 1,639 to 8,047, despite a series of auctions carried out during the year to sell old buses. This increase is mainly attributable to the addition of the remainder of 2,200 new buses by the SLTB, with assistance from the General Treasury, of which 1,319 buses were delivered at end 2014. This included 80 small buses to be operated on rural roads. The fleet and coverage of super-luxury passenger transport services, in addition to regular and semi-luxury bus services, expanded during 2015. In spite of these improvements, operational losses of the SLTB increased substantially during the year, mainly due to the escalation of the wage bill as a result of new recruitments. The total revenue of the SLTB increased by 6.4 per cent to Rs. 35.8 billion in 2015. However, operating expenditure increased by 14.1 per cent to Rs. 40.6 billion, resulting in an operating loss of Rs. 4.7 billion in 2015, when compared to a loss of Rs. 1.9 billion in 2014. Meanwhile, the number of buses owned and the average bus fleet operated by private bus operators in 2015, declined to 19,397 and 16,942, respectively, from 20,421 and 18,534, respectively, recorded in 2014, partly due to the non-renewal of route permits of unroadworthy buses. Accordingly, the operated kilometrage of private buses declined marginally by 2.3 per cent to 1.0 billion km. Nevertheless, the total passenger kilometrage increased by 6.1 per cent, to 51.1 billion km during the year, mainly as a result of replacing old 42-seater buses with new buses of 56-seat capacity.

**Various initiatives implemented to enhance the quality of public transport continued in 2015 with few adjustments.** The Sisu Seriya project implemented by the National Transport Commission (NTC) to provide safer, cost effective and reliable transport facilities to school children and their parents, operated with 1,255 bus services, while the Nisi Seriya project, implemented to provide a secure service to late night and early morning passengers, operated 134 bus services in 2015. Further, the Gemi Seriya project, which aims to improve the accessibility of people living in rural areas, continued with 21 bus services during the year. Meanwhile, 804 drivers and 808 conductors were trained and 3,000 bus crew uniforms were distributed with the objective of improving the service quality of private bus transport services and ensuring the discipline of bus crew. The rotate timetable initiative, introduced with the objective of providing a level playing field for all bus operators and encouraging a more reliable bus service for commuters, was also implemented in several routes during the year.

**Registration of motor vehicles increased substantially during 2015 by 55.7 per cent to 668,907, compared to an increase of 31.5 per cent recorded in the previous year.** Sharp growth rates of 172.4 per cent and 89.7 per cent were reported in relation to motor car and dual-purpose vehicle registrations, respectively. Further, three wheeler and motor cycle registrations increased significantly by 63.9 percent and 35.9 percent respectively, during the same period. The increase in motor vehicle registrations in 2015, was driven by the increase in disposable income, low interest rates for vehicle leasing and relatively low taxes on hybrid and electrical vehicles and on motor cars with an engine capacity of less than 1,000cc. However, with the upward tax revision on motor vehicle imports, discontinuation of the concessionary tax permits for public servants as proposed by the Budget 2016, restrictions imposed





by the Central Bank on financing of motor vehicle purchases, depreciation of the rupee and the gradual increase in interest rates, motor vehicle registrations continued to decline sharply from January 2016.

## Rail Transportation

**The Sri Lanka Railways (SLR) recorded some operational and financial improvement during 2015.** During the year, rail passenger kilometrage increased by 8.3 per cent to 7.4 billion km, in comparison to 6.8 billion km recorded in 2014, as a result of prevailing relatively low tariffs and the recent expansion in railway services in the Northern Province. This would have also been supported by increasing road traffic in Colombo and the suburbs. However, the goods kilometrage decreased by 2.3 per cent to 127 million MT km in 2015. Total revenue of the SLR increased by 7.2 per cent to Rs. 6.3 billion, reflecting increase in passenger transportation. The recurrent expenditure declined substantially by 17.1 per cent to Rs. 14.0 billion, leading to a decrease in operational losses, to Rs. 7.7 billion in 2015, when compared to the loss of Rs. 11.0 billion recorded in 2014. A large arrears payment amounting to Rs. 5.0 billion that the SLR made to the CPC was, however, mainly attributable for the deteriorated financial performance in 2014. Accordingly, if this irregular expenditure item is excluded, recurrent expenditure had also

significantly increased by 17.6 per cent in 2015, largely due to the increase in salary payments by 30.1 per cent, to Rs. 8.2 billion. However, the rail tariffs were kept unchanged in spite of continuous operational losses made by the SLR.

**Improvements to the railway infrastructure continued during 2015.** The Northern railway line was completed, enabling railway operations on the Northern and Thalaimannar lines connecting Madhu to Thalaimannar and Jaffna and Kankesanthurai, while the installation of a new railway signalling system for the Northern railway line was also completed. Further, the SLR continued rehabilitation projects of islandwide railway stations, such as platforms, passenger overhead bridges and roofs, during the year. Steps were also taken to improve passenger facilities, such as cafeteria, sanitary facilities, combined train bus services, telephone and Wi-Fi internet at certain railway stations, while improving public safety along railway crossings by installing automatic protected gates. Meanwhile, the SLR continued the wagon re-construction programme and was able to add 9 passenger carriages and rehabilitate 4 locomotives during the year. Further, the double tracking of the Kalutara South–Payagala South section and Seeduwa–Chilaw section continued, while upgrading of signalling systems were carried out along the Coastal Line and several stations such as Seeduwa and Ja-Ela.

**In spite of the introduction of some improvements and innovations, the quality of train services still remains sub-standard, requiring urgent attention in order to exploit unique opportunities in mass transit and transform the SLR into a financially viable institution.** The shortage of trains and train compartments during peak hours, lower demand for train services during off-peak hours, lack of value added services, including luxury and intercity train services, inability to ensure timely

service delivery on a sustainable basis, a lack of emphasis on the usage of train services for goods transportation and inferior catering and sanitary facilities can be identified as key concerns. The availability of a reliable and a comfortable train service could attract the general public towards mass transit. Therefore, upgrading and expanding the railway network through strategic PPPs to increase the capital infusion, including electrification of the railway, introducing faster and comfortable intercity services that could facilitate regular users as well as the increasing number of tourists who seek luxurious and relaxing ways to travel around the country, bringing modern technology to signalling and telecommunication systems to ensure a timely service delivery and promoting rail services as a cost effective alternative for goods transportation through a simple and efficient service are essential in improving the quality of railway services. Moreover, introducing market oriented fare schemes while permitting concessionaries to the lowest fare segment would help improve the financial position of SLR.

## Civil Aviation

The civil aviation sector recorded a notable growth in terms of air passenger movements and cargo handling in 2015. Reflecting the increase in tourist arrivals, air passenger movements through the Bandaranaike International Airport (BIA) increased by 9.3 per cent to 8.5 million during 2015 compared to 2014. Transit passengers also increased by 4.1 per cent to 1.2 million in 2015. Further, the total volume of cargo moved through the BIA increased by 11.8 per cent to 215,031 MT. The total number of aircraft handled at the BIA increased by 4.6 per cent to 57,823 during 2015. Since the suspension of regular operations of SriLankan Airlines (SLA) to the Mattala Rajapaksa International Airport (MRIA) in February 2015, MRJA handled only 906 aircraft during 2015 in comparison to 2,329 in 2014 and

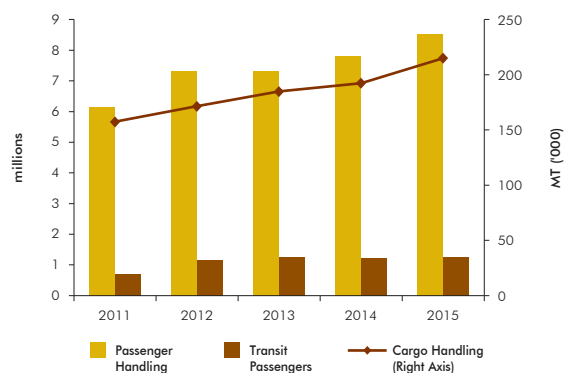
**Table 3.5** Salient Features of the Transport Sector

Item	2014	2015(a)	Growth Rate (%)	
			2014	2015(a)
<b>1. New Registrations of Motor Vehicles (No.)</b>	429,556	668,907	31.5	55.7
Buses	3,851	4,140	113.4	7.5
Motor Cars	38,780	105,628	36.6	172.4
Three Wheelers	79,038	129,547	-5.5	63.9
Dual Purpose Vehicles	20,799	39,456	-15.5	89.7
Motor Cycles	272,885	370,889	61.2	35.9
Goods Transport Vehicles	5,121	7,142	-12.8	39.5
Land Vehicles	9,082	12,105	-30.3	33.3
<b>2. Sri Lanka Railways</b>				
Operated Kilometres ('000)	11,075	11,670	1.4	5.4
Passenger Kilometres (million)	6,842	7,407	9.3	8.3
Freight Ton Kilometres (million)	130	127 (b)	-1.9	-2.3
Total Revenue (Rs. million)	5,909	6,335	9.0	7.2
Operating Expenditure (Rs. million)	16,943	14,049	60.0	-17.1
Operating Loss (Rs. million)	11,034	7,714	113.7	-30.1
<b>3. Sri Lanka Transport Board</b>				
Operated Kilometres (million)	371	440	8.0	18.6
Passenger Kilometres (million)	12,717	15,210	4.2	19.6
Total Revenue (Rs. million)	33,665	35,825	11.5	6.4
Operating Expenditure (Rs. million)	35,527	40,555	5.5	14.2
Operating Loss (Rs. million)	1,862	4,730	-46.7	154.1
<b>4. SriLankan Airlines</b>				
Hours Flown	97,319	96,494	2.2	-0.8
Passenger Kilometres Flown (million)	12,719	12,747	-2.1	0.2
Passenger Load Factor (%)	80	80	-2.7	1.0
Weight Load Factor (%)	51	50	-0.2	-2.9
Freight (MT '000)	96	103	-3.6	7.5
Employment (No.)	6,903	7,020	5.4	1.7
(a) Provisional	Sources: Department of Motor Traffic			
(b) Estimates	Sri Lanka Railways			
	Sri Lanka Transport Board			
	Civil Aviation Authority of Sri Lanka			

handled only 2,739 passengers, in comparison to 20,474 passengers handled in 2014. Total cargo handled at MRJA during 2015 was 1.2 MT, compared to 68.9 MT in 2014. By end 2015, there were 35 international passenger airlines (including SLA and Mihin Lanka (ML) and 8 charter airlines) together with 3 cargo airlines, serving in Sri Lanka, while 8 domestic airlines were also in operation.

**SLA's operating loss declined in 2015, largely due to the drop in operating expenditure supported by declined fuel prices, despite its accumulated losses.** As per provisional financial statements, SLA recorded an operating loss of Rs. 10.6 billion in 2015, compared to Rs. 29.0 billion recorded in 2014. This was largely due to a decrease in total operating expenditure by 12.3 per cent, to Rs. 126.6 billion while the total revenue increased by 0.5 per cent to Rs. 116.1 billion, in

**Chart 3.6** Air Passenger and Air Cargo Handling



2015. The total expenditure decreased as a result of the significant drop in expenditure on fuel with low global fuel prices, while the increase in total revenue was supported by increased passenger load factors and expansions in operations to key routes. However, SLA has incurred an accumulated loss of Rs. 132.6 billion since 2009 while total gross liabilities to the banking sector also has increased by Rs. 24.0 billion to Rs. 33.0 billion during 2015. Hence, there is a need to take urgent measures to improve the operational efficiency through required reforms to convert SLA into a financially viable entity. Under the refueling programme, five new A330-300 Airbuses were added to the fleet during 2015, increasing the total number of A330-300 Airbuses to seven and enabling the retirement of the long-served and low fuel efficient A340-300 Airbuses. The gradual replacement of the existing aircraft by acquiring a new fleet would result in a superior service with enhanced fuel efficiency, which is essential to compete in the global markets. Further, SLA commenced negotiations with an Asian based air service company to begin a Maintenance, Repair and Overhaul (MRO) centre at the MRIA. Meanwhile, ML's operating profit increased to Rs. 1.3 billion in 2015, compared to a marginal profit of Rs. 0.7 billion recorded in 2014. During the year 2015, ML added one additional aircraft to its fleet, increasing the fleet count to four, while launching more cost effective air routes and increasing flying frequencies to existing destinations.

**Construction work of several aviation development projects was in progress during 2015.** Engineering designs of Phase II Stage 2 of the BIA expansion project were completed to a great extent in order to obtain services of the construction contractor. This project is expected to increase the current capacity of 6 million passenger movements per annum to 15 million while improving passenger convenience with the expansion of airport infrastructure and facilities. A multi-level terminal with two pier passenger terminals is to be built with the safety requirements of an international airport, an inline baggage handling system and an access control system with surveillance cameras. Meanwhile, the original plans of the MRIA Phase II project has currently been put on hold by the government, while the approval of the Cabinet of Ministers has been granted to call proposals for investments and commercial operations at the MRIA.

### Port Services

**The Port of Colombo recorded its highest annual container throughput in history during 2015 as a result of improved performance of the Colombo International Container Terminal (CICT), although the performance of all other terminals deteriorated.** The overall performance of the Port of Colombo in terms of total ship arrivals in 2015 indicated an increase of 12.2 per cent, with container ship arrivals and conventional cargo ship arrivals increasing by 12.5 per cent and 60.7 per cent, respectively. Total container handling in 2015 increased by 5.7 per cent to 5.2 million twenty foot equivalent container units (TEUs) from 4.9 million TEUs in 2014. Transshipment container handling also increased by 4.9 per cent during the year. Total container handling of the CICT grew substantially by 127.5 per cent during the year, in sharp contrast to the negative growth of container handling at other terminals. Accordingly, the shares of the Sri Lanka Ports Authority (SLPA),

**Table 3.6** Performance of Port Services

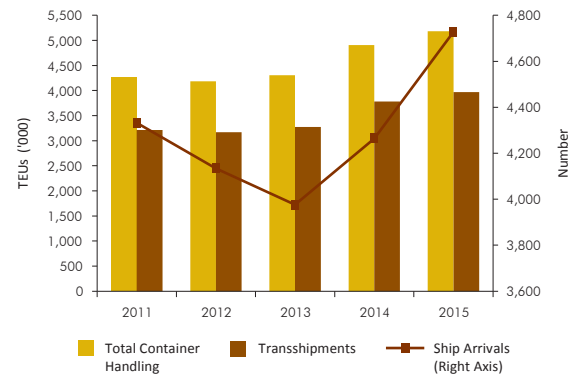
Item			Growth Rate (%)	
	2014	2015(a)	2014	2015(a)
1. Vessels Arrived (No.)	4,264	4,728	7.2	10.9
Colombo	3,742	4,197	2.0	12.2
Galle	60	72	66.7	20.0
Trincomalee	127	164	-5.2	29.1
Hambantota	335	295	141.0	-11.9
2. Total Cargo Handled (MT '000)	74,410	77,579	12.3	4.3
Colombo	70,794	73,718	11.5	4.1
Galle	394	542	90.3	37.5
Trincomalee	2,748	3,027	12.9	10.2
Hambantota	474	293	298.3	-38.3
3. Total Container Traffic (TEUs '000) (b)	4,908	5,185	14.0	5.7
4. Transshipment Container Handling (TEUs '000)(b)	3,781	3,967	15.5	4.9
5. Employment (No.) (c)	9,598	9,550	-2.9	-0.5

(a) Provisional  
(b) TEUs = Twenty-foot Equivalent Container Units  
(c) Only for Sri Lanka Ports Authority

Source: Sri Lanka Ports Authority

South Asia Gateway Terminal (SAGT) and CICT in total container handling were at 43.4 per cent, 26.4 per cent and 30.1 per cent, respectively, in 2015, in comparison to the shares of 52.1 per cent, 33.9 per cent, and 14.0 per cent, respectively, in 2014. Currently, the CICT handles mega container vessels, which cannot be operated either at the Jaye Container Terminal (JCT) or SAGT. Total cargo handling at Ports of Colombo, Trincomalee, Galle and Hambantota amounted to 77.6 million MT, recording a lower growth of 4.3 per cent, in comparison to the growth of 12.3 per cent recorded in the previous year. Break Bulk cargo handling increased by 53.7 per cent, due to the increased imports of fertiliser and iron/steel at both Colombo and Hambantota Ports. Meanwhile, total vehicle handling at the ports of Hambantota and Colombo increased by 17.1 per cent, driven by the significant growth in domestic vehicle handling by 138.0 per cent, while vehicle transshipments, which are handled only at the Hambantota Port, recorded a negative growth of 27.6 per cent.

**Construction of Phase I of the East Container Terminal (ECT) at port of Colombo was completed in 2015.** Phase I included the construction of a 440 metre long quay wall consisting of a 30 metre rail span, 20 metre wide

**Chart 3.7** Container Handling, Transshipment Volume and Ship Arrivals

back-reach area and a two lane road, a container yard on reclaimed land consisting of 12 dry stack lanes, one reefer lane and 30 metre wide peripheral roads, as well as services and utilities consisting gates, a fuelling station, electrical substations, sewerage treatment plant, firefighting system, water storage and distribution network and a storm water drainage system. According to the Master Plan of the Colombo South Harbour Development Project, the ECT, once completed, could accommodate 2.4 million TEUs per annum, and will have a quay length of 1,200 metres, consisting three container berths with a water depth of 18 metres.

**The construction of Phase II of the Hambantota port continued in 2015.** The project includes four container berths, a public terminal and an artificial island. The total estimated construction cost of Phase II of the Hambantota port is US dollars 808 million and construction is expected to be completed during 2016. During the year, the SLPA entered into a 10-year lease agreement with Litro Gas Terminal Lanka (Pvt) Ltd for the operations of the LPG facility at the Hambantota port. However, due to the poor demand for this operation, the SLPA management is in the process of reviewing the agreement. The bunkering facilities and tank farm project at Hambantota port includes 14 tanks with 80,000 cubic metre capacity. The construction of the bunkering facility has already

been completed and handed over to the SLPA by the contractor at the end of 2014. Due to operational losses incurred in bunkering operations during the period from June 2014 to February 2015, the SLPA requested proposals to attract a strategic partner with experience in the field to operate the bunkering facility on lease basis.

**The financial performance of the SLPA declined marginally during the year 2015.** As per unaudited provisional financial statements, the SLPA recorded an operational profit of Rs. 6.0 billion, compared to Rs 7.3 billion in 2014. This was the combined outcome of an increase in total revenue by 8.8 per cent to Rs. 40.8 billion and increase in operating expenditure by 15.3 per cent to Rs. 34.8 billion. Meanwhile, the construction of the Port City project, which was suspended in 2015, is expected to recommence in the first half of 2016.

## Water Supply and Irrigation

**The water supply sector continued to expand its services to meet the rising demand for pipe borne water.** Sri Lanka has achieved targets set under the Millennium Development Goals (MDGs) for access to safe drinking water and proper sanitation facilities, and stands well above the other South Asian countries. In 2015, the National Water Supply and Drainage Board (NWS&DB) established several goals to be achieved, mainly to provide safe drinking water to eradicate Chronic Kidney Disease of unknown etiology (CKDu), minimisation water losses and water quality deterioration, and provide safe drinking water and adequate sanitation facilities to all. Accordingly, the NWS&DB provided 122,671 new water connections for domestic, commercial and industrial purposes during the year, thereby raising total connections by 6.7 per cent to 1.95 million by end 2015. In 2015,

there were 35 ongoing small and medium water supply projects implemented by the NWS&DB in all provinces except the Uva province to provide safe drinking water through the country, of which 6 projects have been completed. The percentage of non-revenue water islandwide declined to 27.3 per cent in 2015, from 28.5 per cent in 2014. However, the percentage of non-revenue water in Colombo city remained high at 46.2 per cent in 2015 and declining only marginally from the level of 46.6 per cent recorded in 2014. The Ministry of City Planning and Water Supply (MCPWS), directly involved in controlling CKDu, has allocated Rs. 1.0 billion through the National Budget 2015, to implement long, medium and short-term programmes to curb the incidence of this disease, particularly by providing safe drinking water to the affected areas. The MCPWS implemented the UNICEF funded Water, Sanitation and Hygiene (WASH) programme in collaboration with the Ministry of Health, Nutrition and Indigenous Medicine (MHNIM), the Central Environmental Authority (CEA), NWSDB and the Department of National Community Water Supply (DNCWS). The DNCWS, which was established in late 2014, with the objective of providing safe drinking water and sanitation facilities to rural communities, drew up plans to increase the number of new connections outside the NWS&DB's network area. The World Bank

Table 3.7

### Water Supply by National Water Supply & Drainage Board

Item	2014	2015 (a)	Growth Rate (%)	
			2014	2015 (a)
Total Number of Water Supply Schemes (b)	329	331	1.2	0.6
Total Number of New Connections provided during the Period	124,251	122,671 (c)	3.5	-1.3
Total Number of Connections (b)	1,831,998	1,954,669 (c)	7.3	6.7
Total Water Production (MCM) (d)	575	600 (c)	5.1	4.3
Unaccounted Water (%)				
Colombo City	46.6	46.2 (c)	-1.9	-1.0
Islandwide	28.5	27.3 (c)	-5.5	-4.4

(a) Provisional  
(b) As at year end  
(c) Estimates  
(d) MCM=Million Cubic Metres

Source: National Water Supply and Drainage Board

funded Water Supply and Sanitation Improvement Project, which commenced in 2015 and covers suburban and rural areas in seven districts of the country, is expected to be completed in 2020. The NWS&DB and DNCWS established a three-pronged strategic approach to enhance access to water resources. Under this approach, 89 projects are being implemented at present, comprising 21 large scale projects, 56 small and medium scale projects, six local bank-funded water supply projects and six sewerage projects. The MCPWS is targeting to increase pipe borne water availability to 60 per cent of the population by the year 2020, and piped sewerage is also expected to increase to 7 per cent by 2020, from the present levels of 46 per cent and 2 per cent, respectively. Meanwhile, sand mining, which affects the yield in downstream intake points, water and industrial pollution, deforestation and soil erosion, and obtaining permission to carry out pipe laying under roads and road reinstatement costs, remain concerns in the water supply sector. Further, the lack of a central authority to decide on competing water uses for agriculture, power generation, drinking water, industry, inland fisheries, recreation etc., needs to be resolved, enabling the respective parties to deliver an efficient service.

**Financial position of the NWS&DB deteriorated during the year 2015.** As per unaudited provisional financial statements, the NWS&DB recorded a marginal operational loss of Rs. 100 million, compared to Rs. 2.5 billion operational profit recorded in 2014. Its total revenue increased by 5.4 per cent to Rs. 21.3 billion, while operational and maintenance cost also increased by 21.0 per cent to Rs. 21.4 billion. Capital expenditure by the NWS&DB decreased by 22.8 per cent to Rs. 27.5 billion during the year.

**Given the importance of irrigation service delivery in farming activities, the construction and rehabilitation of several major irrigation projects continued in 2015.** Timely and regular maintenance of reservoirs and tanks is extremely important to curb significant increases of future maintenance costs, and to avoid underutilisation and minimise the risk of structural failures. The Irrigation Department allocated funds amounting to Rs. 8.7 billion for the rehabilitation of 16 major existing irrigation schemes, of which Rs. 8.6 billion were utilised during 2015. The expenditure incurred on major irrigation schemes during the year included Rs. 5.6 billion for Yan Oya Reservoir, and Rs. 1.5 billion for the Deduru Oya Reservoir. Two major irrigation projects, namely Bentara Ganga Right Bank Drainage and Salt Water Extrusion Scheme, and Rugam Kithul Reservoir, were initiated in 2015. These projects will facilitate the cultivation of around 15,810 hectares of land, directly serving 3,450 families directly. As water is a scarce resource particularly in the dry zone of the country and agricultural productivity is intimately connected with the availability and use of water, effective water management has become an important factor in the agricultural sector. In this context, efficient use of irrigation water and improvement of the irrigation systems will have to be continued with renewed effort.

### 3.3 Social Infrastructure Policies, Institutional Framework and Performance

#### Health

**In 2015, the government adopted a number of new health policies directed at improving the wellbeing of the general public, while taking measures to enhance the quality of healthcare services.** A National Policy and Strategy on Health of Young Persons was introduced with the broad

objective of addressing health and related issues of young individuals and improving their health. This policy is also related to other programmes and policies, including the National Policy on Maternal and Child Health, National Nutrition Policy, Population and Reproductive Health Policy, National HIV/AIDS Prevention Policy and Non Communicable Diseases (NCDs) Policy. Considering the fact that the excess consumption of alcoholic beverages has an adverse effect on public health, poverty alleviation and economic development, the Ministry of Health also approved a National Policy on Alcohol Control in 2015, which incorporated the obligations of the government under the World Health Organisation (WHO) Global Alcohol Policy Initiative and the WHO Global Plan to reduce mortality caused by NCDs by 25 per cent by 2025. Moreover, the Parliament approved the National Medicines Regulatory Authority Act in March 2015, to ensure that necessary medical drugs and devices of high quality are available at affordable prices all over the country. The Ministry of Health took several measures to enhance the quality of healthcare services during the year, which included the establishment and improvement of planning and development units in hospitals, the development of health care norms, and conducting of capacity building programmes. Meanwhile, total government expenditure on health amounted to Rs. 177.8 billion in 2015 compared to that of Rs. 138.4 billion in 2014.

**The human resource and physical infrastructure base of the government health sector improved further during 2015.** In government hospitals, there were 19,429 doctors (including interns); a doctor for every 1,079 persons, and 32,272 qualified nurses; a nurse for every 650 persons, by end 2015. There were 610 government hospitals with 76,781 beds in the country, recording 3.7 beds for 1,000 persons by end 2015. The cadre

of the state health service, including provincial health departments, was further improved with new staff recruitments. The physical infrastructure development projects that were in progress during the year included the construction of the Epilepsy Unit at the National Hospital, Helmut Kohl Maternity Hospital in Karapitiya, the development of District General Hospitals in Hambantota and Nuwara Eliya and the construction and upgrading of the peripheral blood banks. There were 1,187 qualified Ayurvedic physicians working in government Ayurvedic hospitals while the total number of registered Ayurvedic physicians was 22,672 as at end 2015. There were 99 government Ayurvedic Hospitals with 4,926 beds. The Bandaranaike Memorial Ayurveda Research Institute (BMARI), Gampaha Wickramarachchi Ayurveda Institute and Institute of Indigenous Medicine under the University of Colombo continued to work actively in indigenous medical research intended for the prevention and management of illnesses with emphasis on Cancer, Chronic Kidney Disease with unknown etiology (CKDu), Cardiovascular Diseases, Diabetes and Dengue.

**Table 3.8** Salient Features of Health Services

Item	2014	2015(a)
<b>1. Government (No.)</b>		
Hospitals (Practicing Western Medicine)	601	610 (b)
Beds	76,918	76,781 (c)
Primary Health Care Units	484	475
Doctors	17,903	19,429 (d)
Assistant Medical Practitioners	1,055	1,017
Nurses	31,964	32,272
Attendants	8,215	8,689
<b>2. Ayurvedic (No.)</b>		
Ayurvedic Physicians (e)	22,422	22,672
<b>3. Total Govt. Expenditure on Health (Rs. billion)</b>		
Current Expenditure	116.2	140.6
Capital Expenditure	22.3	37.2

(a) Provisional

(b) Upgrading some of the Primary Health Care Units to Hospitals is mainly attributable for the increase in the number of hospitals

(c) Decline in the hospital beds is mainly due to the on going reconstruction work in the hospitals

(d) Including post intern

(e) Registered with the Ayurvedic Medical Council

Sources: Ministry of Health, Nutrition and Indigenous Medicine  
Department of Ayurveda  
Ministry of Finance  
Central Bank of Sri Lanka

**The private sector continued to play a major role in providing healthcare services in Sri Lanka.** The number of private hospitals registered with the Private Health Services Regulatory Council stood at 241 by end 2015, with a capacity of 5,883 beds. This included 20 Ayurvedic hospitals with 287 beds. Increased income levels, changing lifestyles and greater preference to receive health services in a more comfortable environment has increased the demand for private health services. Convenient access to medical consultants and the use of latest technologies with state-of-the-art facilities and equipment are also attributable for the increasing popularity of private health services. The growth of private sector participation in indigenous healthcare services, which consists of Desheeya Chikitsa together with Ayurveda, Siddha, Unani, and Homeopathy, is notable, as reflected by the sharp increase in private Ayurvedic hospitals and dispensaries to 20 and 110, respectively, in 2015, from 10 and 35, respectively, in 2014. Significant developments observed in the private healthcare sector and significant improvements taking place in the tourism industry provide an opportunity for Sri Lanka to promote medical tourism to become a global health destination, offering best and diverse medical treatments. While encouraging private sector participation in the healthcare sector, it is, however, essential to take steps to ensure improved service quality by regulating and accrediting these services, in compliance with accepted standards.

**Sri Lanka has performed well in achieving health related Millennium Development Goals (MDGs) set for 2015, in the areas of child mortality, maternal mortality, re-productive health and combating epidemics, such as Malaria.** The maternal mortality rate has declined from 92 deaths per 100,000 live births in 1990 to 30 in 2015, while child mortality rate has declined from 21 per 1,000

live births in 1990, to 10 by 2015. Institutional deliveries have improved to almost 100 per cent while the coverage of Rubella vaccination, Tetanus toxoid and Venereal Disease Research Laboratory (VDRL) test are also approaching towards 100 per cent, for expectant mothers. Further, the expanded immunisation programmes on Measles, Mumps and Rubella have achieved impressive results in reducing preventable diseases. In addition, no indigenous cases of Malaria have been reported for three consecutive years, thereby qualifying as a Malaria-free country. The country has also maintained a low HIV/AIDS record. The Ministry of Health plans to screen all pregnant women for HIV from this year so that Sri Lanka would be able to eliminate mother to child transmission of HIV in two years through the expansion of universal counselling and anti-retroviral drugs programmes.

**In September 2015, Sustainable Development Goals (SDGs) adopted by the UN, to be achieved over the next 15 years, has broadened the set of health related goals.** Sri Lanka has already achieved the SDG targets for maternal, child and infant mortality, while some progress has been made in relation to communicable diseases as well. With respect to the third goal of the SDGs, "Ensure healthy lives and promote wellbeing for all, at all ages", new targets such as reducing premature mortality from NCDs, prevention and treatment of substance abuse, reducing deaths and injuries from road traffic accidents, achieving universal health coverage and reducing deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination have been established.

**Reducing premature mortality from NCDs by one-third by 2030 through prevention and treatment and promoting mental health and wellbeing as per SDGs, has helped set targets to mitigate the threat posed by NCDs,**



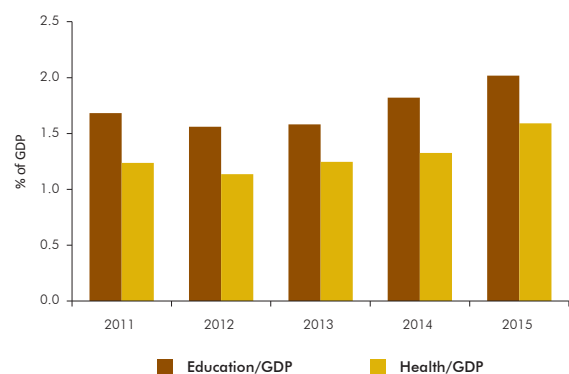
which is the leading cause of mortality in Sri Lanka. Cardiovascular diseases, diabetes, cancer and chronic respiratory diseases are generally considered as the leading NCDs. The strategy on preventing chronic NCDs includes addressing risk factors, such as smoking, alcohol, obesity, unhealthy diet and sedentary lifestyles, especially in adults and adolescents. The prevalence of smokers, consumption of higher percentage of saturated fats compared to unsaturated fat, high daily intake of salt and added sugar, inadequate consumption of fruits and vegetables based foods, poor engagement with regular recreational activities and the increase in the usage of alcoholic beverages have been identified as the main causes for the increasing NCDs in the country. “Healthy Lifestyle Centres” (HLCs) have been established across the country to provide primary healthcare facilities as the National NCD Policy emphasises the promotion of health and wellbeing of the population. Accordingly, there were 814 HLCs functioning throughout the country as at end 2015, which provide services to check fasting blood sugar, Body Mass Index (BMI), total cholesterol and blood pressure. The continuation of the strategic decision toward re-orientating population based prevention, and clinic and hospital based care policies are essential to effectively face the issues emanating from NCDs in the future.

**Outbreaks of Dengue fever dropped significantly, while CKDu continued to be a serious concern.** Dengue cases dropped to 29,777 in 2015, compared to 47,502 cases recorded in 2014, while the case fatality rate dropped to 0.17 per cent in 2015, compared to 0.21 per cent recorded in 2014, due to various activities carried out for early diagnosis and proactive case management. However, Dengue continues to be a challenge as a sustainable reduction in outbreaks

has not materialised over the last few years. Meanwhile, the countrywide childhood vaccinations and surveillance on outbreaks of Dengue fever, Measles, Filaria, Tuberculosis, Avian Influenza and Leptospirosis continued during 2015. Further, new entomologists and entomological assistants were recruited to serve high risk districts and to strengthen entomology surveys in the country. Purchasing and systematically distributing adulticides and larvicides for mosquito control activities were strengthened while ensuring the regular removal of possible mosquito breeding sites from the environment and conducting educational activities. CKDu has been a serious medical concern for nearly two decades for people in 10 districts in particular. Research findings suggest several possible causes for the occurrence of CKDu, including excessive use of agrochemicals with significant amounts of heavy metals, hard water that contain high levels of naturally occurred Calcium and Fluoride, and dehydration due to inadequate drinking of water. The Presidential Task Force on Chronic Kidney Disease Prevention reports that approximately 20,000 people are admitted to government hospitals and 2,000 deaths occur annually due to CKDu. The government medical services continued treatment of CKDu patients through dialysis, transplant programmes and medication, in addition to screening communities in high risk areas.

Chart 3.8

## Government Expenditure on Health and Education



## Education

**Continuous improvements in all levels of education, i.e., primary, secondary and tertiary are essential to achieve rapid growth and development in the country.** In this context, the government continued with its role as the main education provider in the country, while the private sector investment on education has increased significantly. The growth in the private sector education has helped fill various gaps in the public sector driven education system in the country. The existing gap between the skills required by the industry and the skills of the students, regional disparities in general education and resource constraints of the government are among the key issues in the education sector.

**The Ministry of Education was in the process of developing a medium-term strategic plan for 2016-2020, using a rolling planning approach in collaboration with the relevant parties, and a proposal for increasing the budgetary allocation for education as a percentage of GDP.** The overall education policy framework comprised three key themes, namely, increasing equitable access to primary and secondary education, improving the quality of primary and secondary education and strengthening governance and service delivery in the education sector. The major policy themes of the education reforms included formulating a national education policy on general education, establishing school boards, making 13 years of education mandatory, reforming curriculum, reforming examination and evaluation systems, strengthening teacher education and teacher management, establishing an independent school inspectorate, supervising and regulating international schools, establishing e-libraries, improving Tamil medium education, and modernising textbooks. In addition, the

Ministry of Education planned the implementation of “The closest school is the best” project during 2016-2020 to achieve the objective of providing equal education opportunities for all. Meanwhile, the National Institute of Education (NIE) made changes to the Teacher’s Guides for Grades 8 and 12, and syllabi for Grades 9 and 12/13, to be implemented in 2016/2017. The NIE established a National Curriculum Committee and Subject Committees in 2015, for curriculum development and rationalisation.

**Indicators in the general education sector improved further, while efforts to upgrade the quality of basic infrastructure facilities in primary and secondary education continued.** According to the Labour Force Survey, Sri Lanka’s population literacy rate was 93.3 per cent in 2014, in comparison to 92.5 per cent in the previous year. As per the Ministry of Education, the student net enrolment ratio (NER) of age group 5-14 of the country stood at 99.22 per cent in 2014 (computed 2015), as against 98.39 per cent in 2013. School participation, as measured by the Survival Rate to Grade 11 stood at 85.09 per cent in 2014, while male and female student survival rates were 82.04 per cent and 88.25 per cent, respectively. The total number of schools in the country was 10,997 (excluding international schools) in 2015, out of which 10,144 were government schools. The total number of students and teachers in general education (including international schools) were 4.4 million and 259,967, respectively. During the year 2015, the government recruited 5,707 teachers under different qualification categories, out of which 1,154 were absorbed to national schools while the remainder was posted to provincial schools. Various special programmes were launched by the government to create a pleasant learning environment with basic infrastructure facilities in all primary and secondary schools in the island. As a

Item	2014	2015 (a)
1. Total Number of Schools	10,971	10,997
Government Schools	10,121	10,144
Primary	3,577	3,704
Secondary	6,544	6,440
o/w National Schools	352	352
Other Schools	850	853
Pirivenas	747	749
Private & Special Schools (b)	103	104
2. Total Number of Students	4,354,011	4,418,173
Government Schools	4,078,798	4,129,534
Other Schools	194,294	201,034
Pirivenas	62,897	64,806
Private & Special Schools (b)	131,397	136,228
International Schools (c) (d)	80,919	87,605
3. Total Number of Teachers	253,649	259,967
Government Schools	232,990	236,999
Other Schools	12,932	13,851
Pirivenas	6,461	6,776
Private & Special Schools (b)	6,471	7,075
International Schools (c) (d)	7,727	9,117
4. New Admissions (e)	348,288	323,337
5. Student/Teacher Ratio		
Government Schools	18	17
Other Schools	15	15
International Schools (c) (d)	10	10
6. Primary Net Enrolment Ratio (5-9 yrs)	98.51	n.a.
7. Secondary Net Enrolment Ratio (10-14 yrs)	94.78	n.a.
8. Age Specific Enrolment Ratio (5-14 yrs)	99.22	n.a.
9. Total Number of Teacher Training Schools	7	8
10. Number of Teachers Trained during the Year	547	n.a.
11. Total Number of National Colleges of Education	19	19
Total Number of Teacher Trainees	7,200	6,501
Number Passed Out during the Year	3,066	2,595

- (a) Provisional  
 (b) Private schools approved by the government and schools for children with special needs (This figure excludes international schools which are registered under the Companies Act)  
 (c) 2014 data are based on a survey carried out by the Central Bank of Sri Lanka in 2014 covering 120 international schools. Data reported in the table relate only to schools that responded. The response rate was 63 per cent  
 (d) 2015 data are based on an islandwide survey carried out by the Ministry of Education in 2015  
 (e) Government schools only

Sources: Ministry of Education  
 Central Bank of Sri Lanka

part of this programme, 149 national schools with a primary section have been granted Rs.600,000 each for the improvement of physical infrastructure during the year. In addition, the construction of technology laboratories and technology faculties in secondary schools continued during this year. Meanwhile, ongoing construction and repair work continued in National Schools, National Colleges of Education and Teacher Colleges, during the year. The lack of sufficient teachers in key subjects, such as Mathematics, English and Information Technology, and continuous deficiencies in the

physical infrastructure in regional and rural schools are important areas that need urgent attention of the government in order to improve the access and quality of general education.

The university education system expanded further during the year, although substantial quantitative and qualitative improvements are needed if Sri Lanka is to emerge as a knowledge hub in the region. There were 103,423 students enrolled with state universities in 2015, of which 20,523 students were attached to the Open University of Sri Lanka. The University Grants Commission (UGC) approved 27 new undergraduate degree programmes and 10 postgraduate degree/diploma programmes in 2015 to cater to the market and industrial needs. To further expand academic activities in the respective areas of study, the UGC approved the establishment of five new faculties and two new departments at state universities during the year. There were 16 standing committees functioning under the UGC,

Item	2014	2015 (b)
1. Universities (No.)	15	15
2. Other Higher Educational Institutions (No.)	18	18
3. No. of Students (Undergraduates) (c)		
Universities (d)	80,222	82,900
Institutes	3,317	3,353
Open University	20,916	20,523
4. Total No. of Staff (All Universities)		
Academic	5,610	5,525
Non-Academic	11,953	12,374
5. Student/Teacher Ratio	18.7	17.1
6. Age Specific Undergraduate Enrolment Ratio (19-23 yrs) (c)	6.6	6.6
7. Progression to University from GCE (A/L)		
Eligible for University Admission (%)	58.27	60.46
Admission as a Percentage of Eligible (%)	17.53	17.13
8. No. Graduated (e)		
Basic Degree	28,231	n.a.
Postgraduate Degree	8,141	n.a.
9. New Admissions for Basic Degrees (f)	25,200	25,624
10. No. Eligible to be Admitted to Universities	143,740	149,572

- (a) Universities and higher education institutions that come under the purview of University Grants Commission  
 (b) Provisional  
 (c) Excluding external degree course  
 (d) Excluding Open University  
 (e) Including external degrees and Open University  
 (f) Excluding external degrees and Open University

making recommendations on matters pertaining to higher education in respective areas. The UGC has also established a Quality Assurance System for the higher education sector, to create and inculcate a quality oriented culture for academic programmes offered by public universities and higher education institutions. Internal quality assurance units have been established at advanced technological institutes, established under the Sri Lanka Institute of Advanced Technological Education (SLIATE).

**The Technical and Vocational Education and Training (TVET) sector actively contributed to strengthen tertiary education during 2015.**

The secondary and post-secondary level vocational education institutions play an important role in developing competencies of middle level technical officers in the country. These institutions offer career specific programmes that are typically shorter and more focused than a traditional degree programme. By end of 2015, the TVET sector consisted of 635 public institutions and 718 registered private and Non-Governmental Organisation (NGO) institutions, providing 2,291 accredited courses in the fields of ICT, construction, languages, finance, automobile maintenance, textile and garments, hotel and tourism, design and media, office management, agriculture plantation and livestock, gem and jewellery, printing, etc. The key public institutions included the Department of Technical Education and Training (DTET), Vocational Training Authority (VTA) and Sri Lanka National Apprenticeship and Industrial

Training Authority (NAITA). Under the National Vocational Qualification (NVQ) system, 44,148 NVQ certificates were issued by the Tertiary and Vocational Education Commission (TVEC) to students who have successfully completed relevant technical courses. This was a sharp increase compared to the 28,535 NVQ certificates issued in 2014.

**The non-state sector participation in education continued to expand during the year.**

There were 104 private schools approved by the government (including schools for children with special needs) functioning in Sri Lanka by end 2015. The student population in private and international schools increased to 5.1 per cent of the total number of students in the general education system in 2015, from 4.9 per cent in 2014. Although 149,572 students were eligible for admission to a university at the GCE Advanced Level examination in 2014/2015, only 25,624, i.e., 17 per cent, were admitted to state universities due to capacity limitations. The limited number of places in the state university system, as well as changing preferences, have been typically accommodated by increased international migration for higher education purposes, thereby creating a significant outflow of foreign exchange reserves and a drain of talent from the country. However, a parallel system of non-state higher education institutes affiliated with foreign universities has developed in recent times to fill these gaps to a certain extent, which, if managed properly, could help retain a large amount of foreign exchange within the country. As at end 2015, 16 Non State Higher Education Institutes have been recognised as “Degree Awarding Institutes”, conducting 64 degree programmes. There were 2,035 students following such programmes, either on an full time or part time basis, who graduated during the year. In addition, more than 60,000 students were enrolled in various programmes, including diploma and affiliated degree programmes in these institutions. The Ministry of Higher Education and Highways (MHEH) facilitated review panels and the Standing Committee on Accreditation and Quality Assurance (SCAQA).

**Table 3.11** Salient Features of Tertiary and Vocational Education and Training

Item	2014	2015 (a)
1. Number of Registered TVET Institutions	1,191	1,353
Public	531	635
Private and Non-Governmental Organisations	660	718
2. Total Number of Accredited Courses	2,277	2,291
Public	1,754	1,588
Private and Non-Governmental Organisations	523	703
3. Number of Issued NVQ Certificates	28,535	44,148
DTET	3,481	4,171
NAITA	6,185	11,787
VTA	7,711	10,484
NYSC	720	1,244
Private	10,438	16,462

(a) Provisional

Source: Tertiary and Vocational Education Commission

## BOX 5

## Non-state Sector Participation in Providing Higher Education in Sri Lanka

“The education is the most powerful weapon which you can use to change the world”<sup>1</sup>

- Nelson Mandela, Former President of South Africa and 1993 Nobel Peace Prize Laureate

### Background

In the present context of knowledge-driven global economy, manifested by profound advancements in research and innovation, higher education is paramount and plays a vital role in enabling the exploration of new frontiers of knowledge to meet the changing demands and face the realities. In an environment where the knowledge, technological progress and productivity improvement act as the key drivers of growth, higher education has been well recognised as a priority in improving productivity and innovation to sustain economic growth and prosperity amidst the evolution of human needs, technology and globalisation as well as demographic changes.

In Sri Lanka also, there is an unprecedented demand for higher education provided by universities or other educational establishments in both state and non-state sectors. This has been fuelled by the increased awareness of its importance in acquiring new skills, knowledge and ideas needed to maximise new opportunities and improve living standards in a highly competitive world. This has necessitated a rethink of the existing model of providing higher education, given the limited fiscal space in the government budget.

In Sri Lanka, the public university system has been facing a severe capacity constraint to accommodate all those who are eligible to receive higher education, over the past few decades. In the academic year 2014/15, for instance, only 17 per cent (25,624) of the 149,572 students who were eligible for university education were admitted to state universities, out of a total number of 247,376 students who sat for the General Certificate in Education, Advanced Level (GCE (A/L)) examination, due to capacity limitations. Despite the fact that the government has been providing free education for all at primary and secondary school levels, it cannot yet fully accommodate all or a satisfactory number of eligible students in state universities.

Therefore, the presence of non-state sector higher education institutions has evolved gradually over the years helping to partially fill the gap created by capacity limitations in the state university system. At present, a large number of affiliated non-state sector universities and higher educational institutions in Sri Lanka offer foreign degrees or equivalent qualifications. A variety of courses in various disciplines, including Information Technology (IT), Management, Accounting, Marketing, Law, Business, Finance, Science, Medicine and Engineering, are offered by these institutions, contributing to create a qualified skillful workforce in Sri Lanka. Further, non-state sector contribution would also be crucial to develop Sri Lanka as a regional hub for learning and innovation, and as a destination for investments in higher education. These

developments highlight the need for encouraging non-state sector participation in the provision of higher education in the country.

### Benefits of non-state sector participation in higher education

Greater participation of non-state sector institutions in higher education would generate significant economic and social benefits. At present, a considerable number of Sri Lankan students seek admission to overseas universities in developed and developing countries, including neighbouring countries such as India, Nepal, Bangladesh and Malaysia, at a significantly high financial and non-financial cost. Therefore, expansion of higher education opportunities in Sri Lanka enables the students to graduate locally, at a substantially lower cost and save foreign reserve to a greater extent. Establishment of non-state universities in Sri Lanka will lead to improve the quality of education through competition and enhance the access to university education. Further, it could attract foreign investment as well as foreign students, particularly from Asian region. Moreover, increased non-state sector presence in the education sector leads to create more academic and non-academic employment opportunities as well as many other indirect employment opportunities in the country. Facilitating the establishment of world-class non-state sector universities and university townships in the country will contribute to producing a competitive skilled work force in Sri Lanka. The non-state sector higher education institutions would also be able to actively participate in research and development (R&D) and technology transfer activities thereby facilitating the economic growth process of the country. The knowledge based services sector which includes IT software development, Engineering, Medicine, Management, Finance, Science and Technology, etc. IT and IT enabled services has tremendous potential to emerge as a key growth sector in Sri Lanka, where educational opportunities are severely limited at present.

Interestingly, it is observed that an increasing number of foreign students enroll in these non-state higher education institutions in Sri Lanka. Accordingly, Ministry of Higher Education and Highways (MHEH) recommended entry/ residence visa for foreign students who intend to do higher studies in such institutions in Sri Lanka. During the year 2015, nearly 224 visa applications have been processed by non-state higher education division of the MHEM.

### Degree awarding non-state higher education institutions in Sri Lanka

#### (a) Registered under Ministry of Higher Education and Highways

The authority of granting degree awarding status to any non-state higher education institution is vested with the Hon. Minister to the Ministry of Higher Education and Highways according to the Section 25 A of the University Act No. 16 of 1978 and the Specified Authority Rules No. 01 of 2013. Accordingly, there are 16 non-state higher education institutions that have been recognised as

<sup>1</sup> Source: <http://www.un.org/en/globalissues/briefingpapers/efa/quotes.shtml>

“Degree Awarding Institutions” and they offered 64 degree programmes in various academic disciplines, as at end 2015. Their performance is given in Table 1.

**Table  
B 5.1**

**Student enrollment in degree programmes in non-state institutions**

Degree Type	Student enrollments in local degree awarding Programmes		Student enrollments in Local and Affiliated Programmes	
	Total Enrollment as at end 2014	New Enrollments in 2015	Total Enrollment as at end 2014	New Enrollments in 2015
Art & Oriental Studies	902	286	645	412
Commerce & Management Studies	2,778	843	46,067	5,577
Law	-	-	27	28
Science	106	87	41	45
Engineering	648	410	471	121
IT	3,459	1345	2,478	1,328
Other	234	33	2,232	1,032
MBBS	765	70	-	-
<b>Total Student Enrollment</b>	<b>8,892</b>	<b>3,074</b>	<b>51,961</b>	<b>8,543</b>

Source: Ministry of Higher Education and Highways

As per the data collected from these 16 institutions, 8,892 students were enrolled for different programmes by end 2014 and another 3,074 students have been newly admitted to these registered non-state higher education institutions in Sri Lanka. Further, 2,035 students registered in both fulltime and part time programmes graduated from these institutions, during 2015. The majority have followed Commerce/Management and IT related courses

**Table  
B 5.2**

**Graduation statistics of programmes conducted by non-state institutions**

Programme Type	Graduate numbers in Local Programmes		Graduate number in Local <sup>2</sup> and Affiliated <sup>3</sup> Programmes	
	Student Graduates at end 2014 <sup>4</sup>	Total Graduated in 2015	Total Graduates at end 2014	Total Graduated in 2015
Certificate	-	-	38	35
Diploma/HND	-	-	6,094	1,634
Basic Degree	6,626	1,476	3,328	1,026
Postgraduate Diploma	742	149	-	-
Masters	31	410	270	17
PhD	-	-	-	-
<b>Total No. of Students Graduated</b>	<b>7,399</b>	<b>2,035</b>	<b>9,730</b>	<b>2,712</b>

Source: Ministry of Higher Education and Highways

2 Local Programme: these courses include Certificate, Diploma and Higher National Diploma courses.

3 Affiliated programme: these courses include Basic Degree and Post graduate degree level courses.

4 This represents the accumulated total number of students who have graduated from these institutions since they were recognised by the UGC.

5 Conducted by the Central Bank of Sri Lanka (CBSL) in 2016.

**(b) Not registered under the MHEH**

According to the sample survey<sup>5</sup> of 26 non-state higher education institutions, 16 institutions which responded are not registered under the MHEH of Sri Lanka. A significant contribution has been made by the non-registered respondents in providing higher education in Sri Lanka, having 4,260 and 4,518 students enrolled in degree programmes, in 2014 and 2015 respectively. These institutions enroll students for both fulltime as well as part time programmes and produced 2,222 and 2,405 graduates in 2014 and 2015, respectively. For a vast majority of these degree programmes, GCE(A/L) results served as the entry requirement and more than half of the students followed degree programmes in Commerce and Management disciplines both in 2014 and 2015.

**Table  
B 5.3**

**Student enrollment and graduation from degree awarding programmes in Non-state higher education institutions not-registered under MHEH**

Details	2014	2015
<b>Degree Type</b>		
Basic Degree	1,619	1,598
Postgraduate Degree	603	807
<b>Total No. of Graduates</b>	<b>2,222</b>	<b>2,405</b>
<b>Entry Requirement</b>		
A/L	2,890	2,896
O/L	166	152
Other	1,204	1,380
<b>Total No. of Student Enrollment</b>	<b>4,260</b>	<b>4,518</b>
<b>Degree Type (Basic Degree)</b>		
Arts & Oriental Studies	126	102
Commerce & Management Studies	629	573
Law	141	147
Science	107	97
Engineering	383	470
IT	233	209
<b>Total No. of Graduations (Basic Degree)</b>	<b>1,619</b>	<b>1,598</b>
<b>Degree Type (Postgraduate Degree)</b>		
Arts & Oriental Studies	-	-
Commerce & Management Studies	546	700
IT	33	55
Engineering	-	-
Law	24	52
<b>Total No. of Graduations (Postgraduate)</b>	<b>603</b>	<b>807</b>

Source: Survey on non-state sector higher education institutions by CBSL, 2016

**4. Way Forward**

In the backdrop of Sri Lanka's prospects for reaping benefits in the global knowledge economy, the higher education sector has a major role to play in strengthening the required human capital of the country. Given the capacity limitations in state universities and fiscal constraints of the government, it is important to encourage and facilitate non-state higher educational institutions, including foreign universities and professional institutions, to actively participate in the higher education sector of the country. There is a remarkable increase in non-state sector participation in the higher education sector of Sri Lanka over the past 15 years, which has taken place mainly through demand driven market forces<sup>6</sup>, although the progress in establishing non state universities in the country is very minimal. In line with these developments and the evolving nature of this sector, the existing rigid regulations have to be relaxed and the provision of tertiary education by non-state sector has to be encouraged. It is also important to

6 An analysis on “Tertiary Education in Sri Lanka: Issues, Reforms and Prospects” has been published in Box Article No. 3 of the Central Bank Annual Report of 2000.

establish an independent National Quality Assurance and Accreditation Council (NQAAC), which is a long felt need, to ensure standards, quality and the accountability of higher education. NQAAC will set up a robust and comprehensive quality assurance and accreditation system for both state and non-state sector higher education institutions and introduce rules and regulations for establishing and managing higher educational institutions in the country.

At the same time, while encouraging non-state sector participation in the provision of higher education in the country, public sector higher education system also needs to be strengthened and expanded to increase opportunities while improving the quality and relevance to labour market demand. Non-state sector higher education institutions can grant scholarships to low income talented students. Introduction of an effective higher education cost financing

mechanism also would help low income students to get admission to fee levying non-state sector higher education institutions.

The establishment of high quality non-state sector education institutions in vocational and technical fields is also important. Vocational education can prepare students to work in professional fields such as Hospitality, Nursing, Mechanical, Plumbing, Technical, Carpentry, Pharmaceutical and Quantity Surveying, etc. Hence, these institutions can create a qualified skillful workforce to cater to growing market and industrial needs, domestically and abroad.

#### References

Board of Investments  
Ministry of Education  
Ministry of Higher Education and Highways  
University Grants Commission  
Non-state Sector Higher Education Institutions

Furthermore, the institutions affiliated with foreign universities awarding foreign qualifications, as well as institutions awarding international professional qualifications, continued to attract a large number of students. It is observed that these developments have evolved over the years due to the acute shortage of educational opportunities in the country. Given the limitations that the government faces in providing required resources, private sector education has evolved as a natural alternative. This has to be taken in to account exclusively when making education policies in the future. As education is a catalyst in the development process, Sri Lanka should carefully restructure its strategy in education where both public and private sectors exist in parallel. The need for proper monitoring and quality assurance is essential in this context, to ensure that there would be no space for low quality education.

## Housing and Urban Development

**The demand for housing and improved urban infrastructure has been growing with the growth of the economy.** It is estimated that the annual demand for housing in Sri Lanka is over 50,000 units. In meeting this demand, the government continued to play its dual role of providing public sector housing for the general public, including low income groups and the shanty dwellers, as well as facilitating other non-governmental housing

projects. Meanwhile, the planning and execution of urban development projects were also conducted by the government in achieving economic, social and physical development of respective areas.

**The government initiated a number of housing development programmes in 2015.** The National Housing Development Authority (NHDA) introduced the programme Semata Sevana in 2015, where the NHDA contributes Rs. 100,000 for irregular income earners to construct a house. During the year, the NHDA completed 35,771 houses under this programme. In addition, the NHDA implemented a Plastering Housing programme which provided 10 bags of cement per house with technical assistance, and upgraded 28,673 housing units during the year. Further, the NHDA continued several other housing programmes such as Jana Sevana Upahara, Rural and Semi Urban and Sasunen Sevana targeting low income groups. During the year, 7,775 low income families were benefitted by these schemes, of which 5,047 families were accommodated in new housing units. Furthermore, the NHDA completed 1,955 houses under the housing programmes in the Northern Province during the year. In addition, the NHDA issued 2,947 title deeds to dwellers residing in government housing schemes without property rights, while 1,000 land plots were also distributed. Meanwhile, the construction of 467

housing units was in progress under housing development programmes in Lunawa, Lindula and Chilaw, implemented by the Urban Settlement Development Authority (USDA). Further, the Janasewana Swashakthi Human Development programme under the USDA was expanded to 394 underserved settlements covering 39,230 households with the objective of empowering communities in underserved settlements in socio economic and cultural conditions. Meanwhile, the Urban Development Authority (UDA) continued several housing projects, aimed at people in urban underserved settlements. During the year, the UDA completed the Ferguson Road housing project, providing 872 housing units to urban underserved families, while 17 large scale housing projects were in progress, comprising 14,509 housing units. Further, the UDA completed several township development projects in Maharagama, Homagama and Hanwella. The National Advisory Council in Construction, established under the provisions of the Construction Industry Development Act, drafted a National Policy on Construction, which is expected to be submitted to the Cabinet approval soon.

The government unveiled its 'Megapolis Development Plan' formulated to facilitate urban development throughout the island, including the Western Province. The plan is envisioned and conceptualised to achieve the spatial transformation of urban agglomerations in the Western region of the country and the structural transformation of the national economy as a whole. The plan comprises mega projects to develop physical infrastructure that would support international trade, commercial and financial activities, and introduce mega mixed developments to facilitate business, residential, accommodation, shopping and dining, and entertainment, which will enable to evolve the Colombo Central Business District as one of the most attractive cities in the world. The Port

City project is also expected to continue, tapping the intrinsic values of the region and providing an environment to create a new ideal modern community for business, living and leisure.

## Poverty Alleviation and Safety Nets

Increased economic activity and mobility in the post conflict period have led to a significant progress in poverty reduction at a national level. The poverty headcount ratio (PHCR), the common indicator used to measure poverty, as computed based on the results of the Household Income and Expenditure Survey (HIES), declined from 8.9 per cent in 2009/10, to 6.7 per cent in 2012/13. In terms of the PHCR, in 2012/13, approximately 1.3 million individuals were below the poverty line, in comparison to 1.8 million in 2009/10. Sri Lanka's poverty level is comparably low as per the World Bank, which uses an extreme poverty line of US dollars 1.25 per person per day (in 2005 purchasing power parity (PPP) terms) for comparison purposes. Under this definition, extreme poverty in Sri Lanka fell from 13 per cent in 2002, to less than 3 per cent in 2012/13.

Having achieved the MDG of halving poverty between 1990-2015, Sri Lanka now faces the challenge of eradicating poverty in all its forms everywhere, as per the first SDG while addressing regional disparities and income inequality. In spite of the decline in poverty at the national level in the last few decades, wide disparities can be observed across sectors and districts. In 2012/13, the PHCR in the estate and rural sectors was substantially higher than

**Table 3.12** Poverty Head Count Ratio (per cent)

Sector	1995/96	2002	2006/07	2009/10	2012/13
Sri Lanka	28.8	22.7	15.2	8.9	6.7
Urban	14.0	7.9	6.7	5.3	2.1
Rural	30.9	24.7	15.7	9.4	7.6
Estate	38.4	30.0	32.0	11.4	10.9

Source: Department of Census and Statistics



**BOX 6** **Sustainable Development Goals**

World leaders unveiled the new global Sustainable Development Goals<sup>1</sup> (SDGs) at the United Nations Headquarters in New York in September 2015, as the successors to the Millennium Development Goals (MDGs) drawn up in 2000. In contrast to the MDGs, SDGs are an outcome of a number of long and complex discussions in different public and private fora, including various UN working groups. The framework of the SDGs is essentially an action plan to end poverty, protect the planet, and ensure prosperity for all. SDGs recognise poverty as the major hindrance for sustainable development and greatly emphasise eradicating poverty in all its forms and dimensions, including extreme poverty. This framework is aimed at bold and transformative initiatives which will lead the world to a sustainable and resilient development path. SDGs are integrated and inter-connected, and balance the three aspects of sustainable development, i.e., the economic, social and environmental aspects and seek to build on the MDGs and complete what they did not achieve. These goals and targets inspire a wide array of initiatives which are crucial for humanity and the planet and are expected to be achieved by 2030 in five broad areas (5Ps) as given in Table B 6.1 below<sup>2</sup> :

Accordingly, the SDGs agenda embark on this collaborative journey by announcing 17 SDGs, each of which consists of a collection of several specific targets that add up to a set of 169 targets, covering a broad range of sustainable development issues.

- Goal 1 - End poverty in all its forms everywhere
- Goal 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3 - Ensure healthy lives and promote well being for all at all ages
- Goal 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5 - Achieve gender equality and empower all women and girls
- Goal 6 - Ensure availability and sustainable management of water and sanitation for all
- Goal 7 - Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9 - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
- Goal 10 - Reduce inequality within and among countries
- Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12 - Ensure sustainable consumption and production patterns
- Goal 13 - Take urgent action to combat climate change and its impacts
- Goal 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation, and halt biodiversity loss

**Table B 6.1** **The Five Broad Focus Areas of SDGs**

Board Area	Description
People	To end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
Planet	To protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.
Prosperity	To ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.
Peace	To foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.
Partnership	To mobilise the means required to implement this agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and the most vulnerable and with the participation of all countries, all stakeholders and all people

Source: <https://sustainabledevelopment.un.org/post2015/transformingourworld>

<sup>1</sup> There are different ways of defining Sustainable Development, including the following landmark definition: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." - The Brundtland Commission (1987).

<sup>2</sup> For details see: <https://sustainabledevelopment.un.org/post2015/transformingourworld>



Source: <https://sustainabledevelopment.un.org/sdgs>

Goal 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17 - Strengthen the means of implementation and revitalise the global partnership for sustainable development

The consolidated nature of the SDGs with multiple inter-linkages is of high importance in achieving the multidimensional aspects of sustainable development. Hence, the implementation of SDGs would need integrating them into national/regional planning priorities and documents while encouraging different sectors to work together as the 17 SDGs are highly linked, and cannot be implemented in isolation. It also requires meeting the needs and capacities in implementation, monitoring and reporting as well. Collaboration and participatory actions across different levels of government and stakeholder groups

with priorities would also be required. The efforts of all levels will have to be focused across the full extent of the SDGs agenda, if the lives of all to be improved significantly.

Sri Lanka has already achieved some, out of the total number of 169 targets under SDGs, particularly in relation to maternal, child and infant mortality. Further, the new initiatives such as the Blue-Green Development Strategy of the government developed along the lines of the Blue-Green economy concept of the United Nations Environment Programme (UNEP), will address the environmental concerns while fulfilling the relevant SDGs. Despite this progress, a strong collective effort of all stakeholders is required in the country to accomplish SDGs by 2030.

#### References:

1. World Commission on Environment and Development (the Brundtland Commission), Our Common Future, Oxford University Press (1987).
2. <https://sustainabledevelopment.un.org/post2015/transformingourworld>
3. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
4. <https://sustainabledevelopment.un.org/sdgs>

that in the urban sector, although poverty in all sectors has declined from the levels observed during previous HIESs. At the provincial level, the lowest PHCR of 2.0 per cent was reported from the Western province, while the highest PHCR of 15.4 per cent was observed in the Uva province. At the district level, the PHCR ranged from 1.4 per cent in Colombo to 28.8 per cent in Mullaitivu. In absolute terms, a large number of poor population was reported in Ratnapura, Kurunegala, Galle,

Batticaloa, Monaragala and Badulla districts. The incidence of poverty in the Northern and Eastern provinces, which are in the process of recovery following the end of the internal conflict, was recorded at 10.9 per cent and 11.0 per cent, respectively. Meanwhile, the Gini coefficient for household income improved from 0.49 in 2009/10 to 0.48 in 2012/13 although the Gini coefficient for household expenditure deteriorated from 0.37 in 2009/10 to 0.40 in 2012/13.

Table 3.13

### Main Welfare Programmes Number of Beneficiary Families and Value of Grants

Year	Divineguma / Samurdhi Subsidy Programme		Nutrition Allowance Programme		Dry Ration Programme
	Number of Families (a)	Value (Rs. million) (b)	Number of Families (a)	Value (Rs. million)	Value (Rs. million)
2011	1,541,575	9,043	44,739	360	100
2012	1,549,107	10,553	55,299	250	54
2013	1,477,313	15,256	40,403	204	33
2014	1,479,811	15,042	47,858	279	28
2015	1,453,078	39,994	n.a.	2,422	118

(a) As at year end

(b) Including the kerosene subsidy

Sources: Department of Divineguma Development  
Ministry of Women and Child Affairs  
Ministry of Finance

The government strengthened its safety net schemes further, in order to uplift the livelihoods of the poor and economically vulnerable segments of the population. The government continued to channel resources to livelihood development initiatives through Samurdhi / Divineguma in 2015, with the objective of improving socio economic conditions of low income households in the country. The Samurdhi relief was increased by 100 per cent to Rs. 3,000 per month, from Rs. 1,500 per month, commencing from January 2015. This was further increased to Rs. 3,500 per month with effect from April 2015. A special loan scheme, "Divineguma Diriya Saviya" was implemented through Divineguma Community based banks. At present, there are 35,896 Samurdhi/Divineguma banking societies and 332 Samurdhi/Divineguma Maha Sangam. Further, 1,074 community based bank branches operated 14 loan schemes during the year. Under the Divineguma subsidy programme, the allocated total fund was Rs. 40.0 billion in 2015, with the targeting of 1.45 million low income households that represent about 27 per cent of the total population of the country. Further, an expenditure of Rs. 2.4 billion was incurred in distributing food packages, each worth Rs. 20,000, for the expectant mothers under the Nutritional Allowance programme. Under the Divineguma Social Security programme, Rs. 831 million was allocated in respect of 330,443 beneficiary families. Further, the Divineguma programme continued to develop rural and regional infrastructure facilities so as to improve the effectiveness of livelihood initiatives.

## Environment

Protection and caring for the environment has become more important today than ever before. Global warming, freshwater depletion, biodiversity reduction and depletion of the ozone layer are often cited as key threats to the environment globally. Sri Lanka, like many other emerging countries, has also to confront the wide range of environment challenges that are associated mainly with its economic development. Severe land degradation, poor management of water resources, impacts of large scale deforestation and destruction of wildlife and plant habitats, loss of biodiversity, coastal erosion, scarcity of water, air pollution, inadequate facilities for waste disposal and loss of agricultural productivity are among the key issues related to the environment in the Sri Lankan context. Despite, the government is vested with the responsibility of protecting, preserving and improving the environment of the country, it should be complemented by the obligation of every citizen to protect nature and conserve its riches.

In line with the SDGs of the United Nations introduced in September 2015, Sri Lanka continued to strengthen its focus on preserving environmental and natural resources in the process of economic development. Sri Lanka is a signatory to several international environmental treaties and protocols and accordingly has recognised the necessity to maintain a proper

balance between economic growth and environment protection in implementing its development agenda. With increased human activities, several environmental challenges, including the depletion of the forest cover, coastal erosion, air pollution, inland and marine water pollution, endangered ecosystems, land degradation and waste disposal have become prominent concerns, which need continued attention in the future.

**Sri Lanka has been proactively involved in designing relevant environmental policies, disseminating them and executing the same through stakeholder consultation.** Accordingly, the Cabinet has approved an accelerated national programme Punarudaya (2016-2018), aimed at conserving the environment. This programme focuses on a number of key environmental issues and problems: controlling environmental pollution, conserving and developing forests, sustainable land management, resolving the conflict between wild animals and humans, conservation of bio-resources, and promoting and restructuring institutions engaged in environmental conservation. The programme also aims at developing existing frameworks, while eradicating social ills which contribute to the degradation of the environment. As per the overall plan, area-specific zones will be identified in the management of environmental challenges. Several supplementary programmes, which have been identified under each of these areas, such as, Wana Ropa, Wana Arana Rekavarana and Wana Sarana coming under the “Conservation and Development of Forests” programme are already being implemented. All programmes have been allocated time specific targets, including the setting up of district-level environmental tasks. Meanwhile, the Ministry of Mahaweli Development and Environment adopted several initiatives under the National Action Plan (NAP) of the Haritha Lanka programme in 2015. Accordingly, the NAP for combatting land degradation was revised and aligned with the 10-

year strategic plan and framework of the United Nations Convention to Combat Desertification (UNCCD). As a key step to make industries more eco-friendly, the National Ozone Unit (NOU) of the Ministry of Mahaweli Development and Environment continued the implementation of the Montreal Protocol on Ozone Depleting Substances (ODS) and commenced introducing Air conditioners with zero ODSs and low Global Warming Potential (GWP) refrigerants, during the year.

**The government announced an era of Blue-Green Development in January 2016, aimed at exploiting the natural resources of the country towards sustainable and resilient development, in line with the SDGs of the UN.** World leaders who attended the 21st session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris in end 2015, have resolved that all possible action be taken to curtail the rise of global warming to a value below 2 degrees Celsius by 2100. Sri Lanka being a signatory to these resolutions, announced a national Blue-Green Development strategy for sustainable development in the country to provide a more fruitful, happy and healthy livelihood for current and future generations. In this approach, the Blue economy denotes sustainable growth in the oceanic economy, consisting of coastal and marine resources, enhanced with innovative approaches, while the Green economy denotes an environmental friendly economy inclusive of agricultural and industrial practices, with the enhanced use of low-carbon emission methods in sectors including energy, transport, and construction. While highlighting the importance of preserving the oceanic environment, Blue Economy identifies several development opportunities such as, oceanic fish/marine biological resources, oceanic mineral resources, oceanic navigation and port facilities, development of tourism industry utilising coastal and oceanic resources, and oceanic energy generation.

Similarly, Green Economy development strategy emphasises on eco-friendly approaches in sectors such as industrial production, agriculture, energy, construction and transportation.

**The Central Environmental Authority (CEA), which aims at protecting and managing the quality of the environment by promoting public participation, enforcement, advanced technological interventions and environmental education, initiated various measures to protect the environment in 2015.** During the year, the CEA conducted a wide spectrum of programmes, including a certificate course on 'Environmental pollution control and management', a workshop on the 'Finding new alternatives to control mosquitoes in Sri Lanka', an international symposium on environmental management and planning, e-waste drop events under which 6.8 metric tons of electronic waste were collected, and also declared environmental protection areas under the National Environmental Act (NEA) No. 47 of 1980. Evaluating the possible environmental impact of proposed projects, the CEA issues Environmental Impact Assessment (EIA) and Initial Environment Examination (IEE) certificates. Accordingly, the CEA issued 2 EIA certificates and 334 IEE approvals in 2015. Under the provisions of the NEA, the CEA continued to issue Environmental Protection Licenses (EPLs) to industries and activities. Accordingly, CEA issued 3,065 fresh

EPLs and renewed 5,751 EPLs during the year. As a part of its mandate to provide standards, criteria and guidelines related to environmental matters at a national level, the CEA drafted a number of regulations in 2015. The CEA also continued with environmental promotional/ monitoring activities, including the awarding of the Environmental Pioneer President's (EPP) medal, celebrating World Environment Day and implementing the National Green Award scheme. The National Post-consumer Plastic Waste Management Programme and the project for the construction of solid waste disposal facilities were expanded during the year while the water quality monitoring of the Kelani river project and the Green Park Waste Management Centre projects continued to operate during the year. The Pilisar National Solid Waste Management Project that aims to solve solid waste problem in the country, was managed by encouraging the reduction of waste generation to the maximum possible extent and the treatment and disposal of residual waste in an environmental friendly manner. However, in the context of increased urbanisation, it is essential to expedite programmes to strengthen waste management with the use of new technology and improve public awareness on the adoption of environment friendly practices, whilst strengthening the enforcement of environmental laws and regulations.

