

ECONOMIC AND SOCIAL INFRASTRUCTURE

3.1 Overview

Recognising the importance of economic and social infrastructure in facilitating inclusive growth and development, the government continued its investment in enhancing the infrastructure base during 2016 amidst tight budgetary constraints. Economic infrastructure enables the provision of services that are consumed by the public while serving as an input into private sector economic activities. Hence, economic infrastructure augments output, enhances output capacity and productivity and reduces regional and social disparities. Development of social infrastructure is critically important to build a strong human capital base, which promotes high productivity, while ensuring the well-being of individuals for equitable and inclusive development. Moreover, quality and access to infrastructure are key determinants in improving the competitiveness of an economy. Hence, for Sri Lanka to harness its full growth potential and attract foreign direct investments (FDI), the country needs to maintain its infrastructure development drive. However, with limited fiscal space, tax-based funding by the government is not adequate to meet the pressing needs for infrastructure. Continuation of existing financing

arrangements in Sri Lanka for infrastructure development will further increase the government debt and may place the country's repayment capacity under serious stress. In that perspective, it is important for the government to attract private investment for the provisioning of infrastructure through Public Private Partnerships (PPPs). Meanwhile, by encouraging the private sector to invest more in economic infrastructure, the government will be able to create fiscal space to allocate more funds to improve the provisioning of essential social infrastructure, such as education and health. Recognising the necessity for encouraging private sector in infrastructure development, the Cabinet has approved the establishment of a PPP unit at the Ministry of Finance in January 2017, with the support of the World Bank and USAID. This unit is designed to attract private equity investment for public infrastructure development projects. The government policy framework for encouraging PPPs for infrastructure development needs to focus on increasing awareness among all stake holders, including politicians and policy makers, while creating necessary regulatory and administrative mechanisms to encourage private investment and to ensure quality of services and

fair pricing. It should also be noted that consistent policies, good governance and transparency, institutional capacity building, effective regulations and efficient financial markets are prerequisites in promoting private investment in both economic and social infrastructure projects. In addition, infrastructure development projects should be subjected to thorough feasibility assessments to prioritise projects with high returns to the economy to ensure efficiency of resource allocation.

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While various public infrastructure projects were in progress during 2016, the main focus of the government's infrastructure development drive was on improving regional connectivity through an efficient road network. Accordingly, the government continued to invest in the construction of expressways, namely, the Southern Expressway Expansion project, the Outer Circular Highway and the Central Expressway that enhance the connectivity between Western, Southern, North Central and Central Provinces. In addition, the i-ROAD programme, Priority Roads Project, Northern Road Connectivity Project and several bridge construction projects were underway during the year through funding from local and foreign sources. Further, the government has invested considerably in railroad construction, urban and town centre development and irrigation systems while adhering to the government's policy on free health and education, and ensuring the availability

of a safety-net for the poor. Furthermore, the government launched its flagship project, the Western Region Megapolis Master Plan, in 2016 with an anticipated cost of US dollars 40 billion aimed at transforming the Western Province into a vibrant, liveable cosmopolitan region. This would help to resolve issues related to urbanisation, such as traffic congestion, poor housing conditions, waste disposal and access to basic utility services by improving essential infrastructure, such as Information and Communication Technology (ICT), transport, power and energy.

New investment, cost-reflective pricing strategies and productivity enhancements boost the financial viability of State-Owned Business Enterprises (SOBEs). The financial performance of the Ceylon Electricity Board (CEB) deteriorated in 2016 largely due to the low hydropower generation in response to drought conditions that prevailed in the country. Planned development activities, such as Western Region Megapolis Master Plan, including the Colombo Financial City, the development of industrial zones in Hambantota, Trincomalee and the North Western Province, as well as anticipated higher economic activities, are expected to rapidly increase the energy requirement of the country within the next few years. Therefore, priority must be attached to investment in power generation sources to meet the incremental base energy requirement and ensure energy security by catering to the expanding energy demand of the economy. Hence, the government's infrastructure development plan needs to give due consideration towards setting up of a mega plant with 500 MW generation capacity by 2020 in line with CEB's long term generation expansion plan, in order to ensure energy security. At the same time, it is crucial for the economy to select cost-effective energy sources, since very high generation costs will further

Table 3.1
Government Investment in Infrastructure

Year	Economic Services		Social Services		Total	
	Rs. billion	As a % of GDP	Rs. billion	As a % of GDP	Rs. billion	As a % of GDP
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	4.3
2015	429.0	3.8	124.4	1.1	553.4	4.9
2016 (a)	424.0	3.6	117.3	1.0	541.3	4.6

(a) Provisional

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

deteriorate the financial viability of the CEB, and ultimately affect the margins of the entrepreneurs and their competitiveness in the export market. At present, Sri Lanka's electricity tariff is already high in comparison to other countries in the South Asian region. Therefore, the appropriate energy mix for the country should be selected through a thorough cost-benefit analysis, considering capital and operational costs of the power plants as well as the cost of their environmental effects. Simultaneously, fair and cost-reflective pricing strategies are necessary for the financial viability of SOBEs to reduce the financial burden on the government coffers and curb the balance sheet deterioration of state banks due to heavy borrowings by loss-making SOBEs. Since the Ceylon Petroleum Corporation (CPC) is one of the strategically important SOBEs, tax payers of the country have to ultimately bear any financial losses of the CPC. Current market trends indicate a potential weakening of the financial position of the CPC in near future. Hence, strengthening the debt collection mechanism of the CPC and accelerating the process of introducing a market-based pricing mechanism for petroleum products are vital steps to ensure the financial viability of the CPC. These measures are necessary to ensure a healthy cash-flow position and reduce the dependence of the CPC on the borrowings from state banks. Further, maintaining a massive loss making SOBE, such as SriLankan Airlines (SLA), is a huge burden to the government budget. Therefore, the measures taken towards securing a strategic partner for the SLA are important in the current context and have to be accomplished to resolve the need for capital injection and debt consolidation and thereby remove the burden on the government fiscal operations. Demand-driven productivity enhancements are necessary for SOBEs operating in railway, civil aviation and postal services to improve their financial

performances. In addition, the government and regulatory authorities need to monitor the progress of the larger SOBEs in terms of achieving the targets of strategic business plans. The decision of the Cabinet of Ministers to introduce the 'Statements of Corporate Intent' for five key SOBEs, in March 2017, is a commendable step towards improving long-term financial viability of these SOBEs and their accountability. It is important for all SOBEs to develop their own strategic business plans with medium term and long term targets that are clearly linked with the national economic strategy.

The importance of private sector participation in provisioning of social infrastructure has been rapidly increasing during the last few years with the rising purchasing power of the middle income group in the society. With increased purchasing power, consumers tend to demand efficient and high quality health and education services. Social goods, such as primary and secondary education and health, have higher social returns than private returns and hence, private investments are likely to fall short of what is required by the economy. As a result, state intervention has become prominent in the provision of such social infrastructure. While ensuring that low income groups have sufficient access to these facilities, the government also needs to enhance the provision of these services by facilitating the private sector to meet the increased demand by high and middle income groups. Therefore, it is imperative for the government to develop the institutional frameworks, such as quality assurance guidelines, regulatory and monitoring mechanisms and legal frameworks that are applicable across both private and state sector institutions while providing other complementary resources, such as institutional support for the private sector to take-on social infrastructure projects. This is necessary in order to ensure that private institutions balance their

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profit making objectives and social responsibilities, thereby contributing to the economy at large. Quality assurance and monitoring mechanisms are necessary for government entities also to ensure efficient and effective use of government funds and continuous quality enhancements in their service delivery to cater to the expectations of individuals and requirements of markets. This needs to be augmented by implementing much needed reforms, particularly in general and higher education sectors, to address the mismatch between demand and supply in the labour market. Considering the budgetary constraint and the natural expansion in the private sector, clear and consistent policies related to the private sector provision of higher education are necessary in order to provide opportunities for students, who seek higher education from the private sector, as the state is able to provide opportunities for approximately 19 per cent of those who qualify for tertiary education each year.

3.2 Economic Infrastructure Policies, Institutional Framework and Performance

Communication Services

The telecommunication industry continued its growth momentum in 2016 largely supported by increased telephone and internet connections. The total number of mobile telephone connections available in the country increased by 7.6 per cent to 26.2 million by end 2016 in comparison to the previous year. Meanwhile, fixed wireline telephone connections increased by 3.4 per cent to 1.2 million connections from 1.1 million connections as at end 2015. However, the total fixed wireless connections available in the country continued to decelerate during the period under review, with a

decline of 6.0 per cent to 1.4 million connections in comparison to 1.5 million connections recorded at end 2015. Consequently, total fixed telephone connections also declined by 2.0 per cent by end 2016. The reduction in total fixed wireless connections was mainly due to the conversion of fixed wireless to mobile connections and fixed wireline telephone connections for the purpose of obtaining broadband connections. With these developments, the fixed telephone penetration (connections per 100 persons) and the mobile telephone penetration stood at 12.0 and 123.7, respectively, by the end of the period under review. With regard to internet services, total internet connections grew by 20.3 per cent to 4,920,554 during the year, increasing the internet penetration to 23.2 by end 2016. The growth in internet connections was largely supported by the fixed internet connections, which recorded an accelerated growth of 36.1 per cent during 2016. Meanwhile, mobile internet connections grew by 17.1 per cent to 3,991,465 connections by end 2016, in comparison to 3,408,408 connections recorded in the previous year. Meanwhile, active usage of ICT services in economic activities, such as e-banking, e-business, mobile banking, e-bus ticketing, and mobile point of sale (POS), has also increased in recent years. Higher penetration in telecommunication services in

Chart 3.1
Telephone Penetration

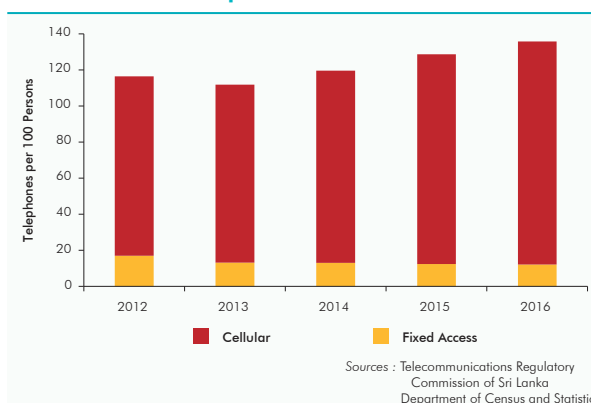


Table 3.2
Telecommunication Sector Performance

Item	2015	2016 (a)	Growth Rate (%)	
			2015	2016
1. Fixed Access Services (No.) ('000)	2,601	2,550	-4.0	-2.0
Wireline Telephones in Service	1,128	1,166	0.5	3.4
Wireless Local Loop Telephones	1,473	1,384	-7.2	-6.0
2. Cellular Phones (No.) ('000)	24,385	26,228	10.2	7.6
3. Other Services				
Public Pay Phones (No.)	5,809	5,301	-12.5	-8.7
Internet Connections (No.) ('000) (b)	4,091	4,921	20.5	20.3
4. Telephone Penetration (c)	128.7	135.7	7.7	5.4
Fixed Telephones	12.4	12.0	-4.9	-3.0
Cellular Phones	116.3	123.7	9.2	6.4
5. Internet Penetration (c)	19.5	23.2	19.3	18.9

(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

Sri Lanka has supported the socioeconomic development of the country and played an important role in narrowing down the rural-urban digital divide.

The government has identified telecommunication and digital infrastructure as two core areas that enhance digital ecosystems and economic development. The widespread use of ICT stimulates inclusive growth and job creation, especially by empowering the self-employed and small enterprises. Improved access to telecommunication services enables individuals to access the market through digital modes of marketing, thereby increasing income and profits while reducing transaction costs. Further, digital infrastructure can offer work opportunities for people who generally face obstacles to work outside of their homes, due to geographical remoteness, physical disability or cultural barriers. The progress in telecommunication services fosters individual productivity through increased access to education. Meanwhile, the growing penetration of connectivity and increasing affordability of devices are expected to provide a range of financial services to both small-scale entrepreneurs and low-income households, enabling them to grow

their businesses and make financial transactions smoothly. Innovations in mobile payment systems and peer-to-peer lending platforms enhance the access to financial services and credit while reducing the cost of businesses. Therefore, recognising the vital role of telecommunication and digital infrastructure for economic growth, the Ministry of Telecommunication and Digital Infrastructure and Telecommunications Regulatory Commission of Sri Lanka (TRCSL) organised the Sri Lanka Broadband Forum for the first time in the country in 2016. Global and local broadband landscape was analysed by industry experts at this forum, with the participation of industry leaders. In addition, several policy measures were proposed in the Budget 2017 to boost telecommunication and digital infrastructure of the country. The government has instructed all mobile telephone operators to convert their infrastructure to provide 3G coverage to all metro areas of the country by end June 2017 with the aim of stimulating the country's digitalisation process. Any operator who fails to provide 3G coverage within the first six months of 2017 will be liable for a surcharge of Rs.100 million per district. Furthermore, mobile telephone service providers are requested to provide 4G coverage to all metro areas of the country by end June 2018.

The TRCSL continued to promote quality-oriented fair competition among licensed telecommunication service providers while ensuring consumer protection. The TRCSL has prepared a set of 'Quality of Service (QoS)' parameters for fixed and mobile voice services after a public consultation. The telecommunication service providers are required to submit monthly reports on the use of QoS parameters and indicate any factors beyond their control that may have prevented

them from achieving the targets specified by the TRCSL in terms of QoS. Further, the TRCSL has planned to conduct a network audit, a process in which the network is mapped both in terms of software and hardware once in two months, to check the authenticity of measured parameter values submitted by the service providers on a monthly basis. Moreover, with the increase in internet penetration in Sri Lanka, the speed of the internet connection has become a key concern among internet users. Therefore, the TRCSL has installed an 'Internet Speed Test Tool' for internet users to measure the speed of connections. Meanwhile, the TRCSL decided to place three 'test end servers' in Singapore, Europe and USA data centres, as most of the content used by the Sri Lankan internet community are hosted in these countries. In addition, the TRCSL installed a 'Net Speed' tool to measure the internet speed of connections provided by the telecommunication service providers on a common platform and publish the test results for public information. The TRCSL also introduced a process to prepare a 'National Broadband Policy' for Sri Lanka, in consultation with the government and private sector stakeholders. The aim of this initiative is to develop a high level framework to promote and facilitate the expansion and utilisation of broadband services in the country. This policy document is expected to be finalised by end 2017, initially covering a five year period. It is expected that the national broadband policy would help to improve the availability, affordability and usage of broadband services and thereby enhance opportunities for access to education, health, agriculture and other public services with greater transparency, and cost effective options for delivery of various government and commercial services. The Colombo Lotus Tower project of the TRCSL, which has an estimated cost of US dollars 104.3 million, is expected

to be completed in the second half of 2017, facilitating the transmission of signals of over 50 radio stations and 50 digital video broadcasting channels while providing numerous commercial and entertainment amenities.

The Information and Communication Technology Agency (ICTA) continued its effort to enhance the accessibility of ICT services in the country. The number of government institutions that are connected to the Lanka Government Network (LGN) increased to 860 during the year, providing remote services to citizens through a secure electronic platform. Several government eServices were developed during the year, such as eServices to monitor registration of motor vehicles, issuance of driving licenses and the provision of location based information on the Sri Lankan heritage to promote tourism. The ICTA also focused on skills development of public sector workers at all levels by conducting various capacity building programmes to improve the capacity of public services in handling ICT.

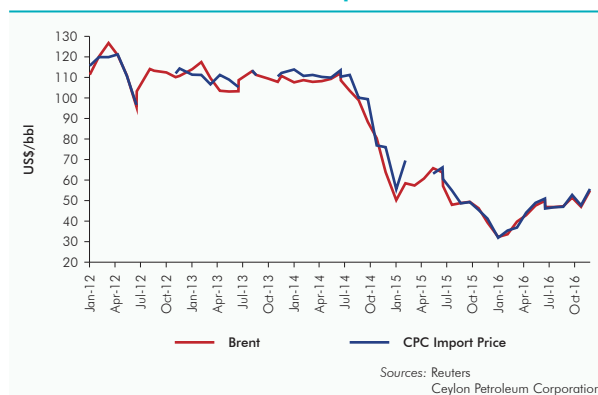
The Department of Posts (DOP) continued its services amid high penetration in telecommunication services in the country. By end 2016, the postal service comprised 652 main post offices, 3,410 sub post offices, 524 agency post offices, 101 rural agency post offices and four estate agency post offices. The DOP continued to diversify its services with the objective of enhancing the financial position of the DOP. Accordingly, measures were taken to introduce new agency services, including distribution of insurance premiums and insurance certificates through the post office network in 2016. Meanwhile, the government decided to keep the postage tariffs unchanged in 2016. The financial position of the DOP further weakened in 2016. The operating loss of the DOP increased

by 13.1 per cent to Rs. 5.7 billion in 2016, in comparison to the loss of Rs. 5.0 billion in 2015. This was the net outcome of the decline in total revenue by 2.0 per cent to Rs. 6.6 billion and the increase in operating expenditure by 4.5 per cent to Rs. 12.3 billion in 2016 in comparison to the preceding year. The increased losses of the DOP could be attributed to the increased availability of alternative modes of communication and the lack of a cost-effective pricing mechanism apart from the fact that the operational structure of the postal services has remained broadly unchanged. However, given the increased financial losses incurred by the DOP, new initiatives have to be undertaken by the DOP to enhance its revenue by diversifying and expanding the services to reap the full benefit of improved technology while curtailing expenditure to reduce the burden on the government budget.

Petroleum

Despite the rising trend seen in international prices since the beginning of 2016, the annual average international crude oil (Brent) price in 2016 was lower than the previous year, as global crude oil prices were higher in the first half of 2015 in comparison to 2016. The annual average price of Brent in the international market declined by 16.2 per cent to US dollars 45.03 in 2016 from US dollars 53.75 in 2015. Prices fell to a record 12-year low level in January 2016 amidst worries on a glut in global supply on the backdrop of an expected increase in oil exports with the lifting of sanctions on Iran. Accordingly, the monthly average international Brent price fell to US dollars 32.23 per barrel in January 2016. However, average Brent prices gradually recovered from US dollars 33.63 per barrel in February 2016 to US dollars 49.82 per barrel in June 2016, based on market speculations on possible oil supply cuts by the Organisation of the Petroleum Exporting Countries (OPEC) and

Chart 3.2
Average Price of Crude Oil (Brent) in the International Market and the Crude Oil Import Price of the CPC



non-OPEC oil producing countries. However, at the end of June 2016, the uncertainty over the Brexit from the European Union (EU) resulted in a temporary drop in petroleum prices in global markets. During the second half of the year, the average Brent crude oil price fluctuated around US dollars 48.95 per barrel due to the excess supply, stronger dollar and the market expectations of supply cuts by the oil producers. In December 2016, the OPEC agreed to cut production for six months from January 2017 by around 1.2 million barrels per day (bpd) to 32.5 million bpd while the non-OPEC member Russia agreed to cut output by 0.3 million bpd. Although there were persistent doubts that this production cut would not be sufficient to end a supply overhang, the average Brent crude oil price increased up to US dollars 54.74 per barrel in December 2016 after other non-OPEC oil producers also agreed to reduce their output by 0.3 million bpd. This was the first coordinated action by the OPEC and non-OPEC countries to jointly reduce output since 2001.

The average price of crude oil imported by the CPC largely followed trends in global oil markets. Consequently, the average price of crude oil imported by the CPC declined by 15.5 per cent to US dollars 46.30 per barrel in 2016 from the annual average price of US dollars 54.80 per barrel in the preceding year. The average import price of

total refined petroleum products also declined by 19.9 per cent to US dollars 434.62 per MT in 2016, from US dollars 542.61 per MT in 2015.

While the cost of imported petroleum products remained subdued, domestic retail prices of petroleum products remained unchanged in 2016 due to the significant downward revision to retail petroleum prices in 2015. However, the retail price of kerosene was reduced by Rs. 5 per litre with effect from 09 January 2017 to Rs. 44 per litre, to transfer the benefit of lower global oil prices to the consumers.

The demand for petroleum products from energy generation and transportation sectors increased substantially during the year, mainly due to the increased demand for transport service as well as the higher thermal-based power generation caused by erratic weather patterns during the latter part of 2016. Petroleum sales to the energy generation in Sri Lanka grew by 103.9 per cent in 2016 in comparison to the previous year. Petroleum sales to the transportation and aviation sectors in 2016 grew by 8.7 per cent and 11.3 per cent, respectively. Domestic sales of diesel increased by 19.9 per cent in 2016 in comparison to the previous year. Further, the domestic sales of petrol products increased by 16.0 per cent during 2016 relative to the preceding year, reflecting the higher demand for petroleum products from the transport sector. The furnace oil sales also increased by 29.8 per cent in 2016 in comparison to 2015 due to the higher dependency on thermal power for power generation. The kerosene sales increased by 5.6 per cent during 2016 in comparison to the preceding year owing to the higher demand for kerosene.

The CPC's financial position improved in 2016 recording a substantial operating profit as against an operating loss recorded in 2015. As per the provisional unaudited financial statements, the CPC reported a profit of Rs. 69.6 billion,

Table 3.3
Petroleum Sector Performance

Item	2015 (a)	2016 (b)	Growth Rate (%)	
			2015	2016
Quantity Imported (MT '000)				
Crude Oil	1,763	1,685	-3.4	-4.4
Refined Products	3,321	3,885	-1.9	17.0
Coal	1,883	2,407	17.1	27.8
L.P. Gas	277	345	39.9	24.3
Domestic L.P. Gas Production (MT '000)	10	9	-65.5	-8.4
Value of Imports (CIF)				
Crude Oil (Rs. million)	100,578	86,969	-46.4	-13.5
(US\$ million)	739	596	-48.6	-19.4
Refined Products (Rs. million)	244,148	246,233	-37.7	0.9
(US\$ million)	1,802	1,688	-39.9	-6.3
Coal (Rs. million)	21,613	28,692	4.2	32.8
(US\$ million)	159	197	-0.2	23.9
L.P. Gas (Rs. million)	22,326	24,208	-13.7	8.4
(US\$ million)	164	166	-17.1	1.2
Average Price of Crude Oil (CIF)				
(Rs./barrel)	7,459	6,757	-45.3	-9.4
(US\$/barrel)	54.80	46.30	-47.6	-15.5
Quantity of Exports (MT '000)	908	807	128.1	-11.1
Value of Exports (Rs. million)	50,461	41,794	14.3	-17.2
(US\$ million)	374	287	10.6	-23.3
Local Sales - Refined Products (MT '000)	4,124	4,937	-6.4	19.7
o/w Petrol (92 Octane) (c)	911	1,036	18.7	13.7
Petrol (95 Octane)	100	137	45.5	36.5
Auto Diesel	1,779	2,125	-8.6	19.4
Super Diesel (d)	74	97	21.2	31.3
Kerosene	130	137	6.5	5.6
Furnace Oil	630	817	-31.2	29.8
Avtur	382	425	-2.3	11.3
Naphtha	99	120	5.7	21.1
Local Sales - L.P. Gas (MT '000)	293	356	26.5	21.4
Local Price (End Period) (Rs./litre)				
Petrol (92 Octane)	117.00	117.00	-22.0	0.0
Petrol (95 Octane)	128.00	128.00	-19.0	0.0
Auto Diesel	95.00	95.00	-14.4	0.0
Super Diesel	110.00	110.00	-17.3	0.0
Kerosene	49.00	49.00	-39.5	0.0
Furnace Oil				
800 Seconds	82.20	82.20	-10.8	0.0
1,500 Seconds	80.00	80.00	-11.1	0.0
3,500 Seconds	80.00	80.00	-11.1	0.0
L.P. Gas (Rs./kg)				
Litro Gas	107.68	105.68	-29.0	-1.9
Laugfs Gas	107.68	105.68	-29.0	-1.9
International Market Crude Oil Prices (US\$/bbl)				
Brent	53.75	45.03	-46.1	-16.2
WTI	48.91	43.38	-47.5	-11.3
World Oil Supply (million barrels per day)	96.6	97.0	3.1	0.4
World Oil Demand (million barrels per day)	95.0	96.6	2.1	1.7

(a) Revised
(b) Provisional
(c) Including XtraPremium Euro 3
(d) 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

before taxes, in 2016 in comparison to a loss of Rs. 19.9 billion, before taxes, in the preceding year. The lower average level of crude oil prices that prevailed in international markets contributed

heavily for the substantial profits generated by the CPC. At the same time, gross liabilities of the CPC to the banking sector declined by 27.2 per cent from Rs. 264.5 billion to Rs. 192.6 billion by end 2016. Meanwhile, local currency deposits of the CPC with the state banks registered an increase of 65.0 per cent from Rs. 19.9 billion in 2015 to Rs. 32.8 billion by end 2016. However, the CPC's outstanding trade receivables from government entities increased by 101.8 per cent to Rs. 31.1 billion as at end 2016, from Rs. 15.4 billion as at end 2015. The government entities in the electricity generation sector contributed to 64.3 per cent of the trade receivables of the CPC.

Ensuring financial viability of the CPC is crucial since financial losses made by the CPC adversely affect the government budget, while higher borrowings by the CPC lead to balance sheet deterioration of the state banks.

The rising trend in oil prices owing to production cuts by leading oil producers and the depreciation of the exchange rate are likely to increase the cost of oil imports to the CPC. Therefore, current market trends indicate a potential weakening of the financial position of the CPC in near future. Since the CPC is a SOBE, financial losses of the CPC ultimately will have to be borne by the tax payers of the country. Therefore, accelerating the process of introducing a market-based pricing mechanism for petroleum products and strengthening the debt collection mechanism of the CPC are important measures to be taken to ensure the financial viability of the CPC. These measures will ensure a healthy cash-flow position and reduce the dependency of CPC on the borrowings from state banks.

The Cabinet of Ministers has taken several important decisions during 2015 and 2016 to accelerate oil and gas exploration and development activities. The government of Sri Lanka entered into an agreement with

US-based IHS Energy in December 2016 to develop a marketing strategy, bid documents and partner selection criteria for consideration by the Sri Lankan government in relation to Block M2. It is expected to award the M2 exploration block to a suitable oil and gas company by the fourth quarter of 2017 to further explore and develop natural gas reserves. Moreover, the government entered into a Joint Study Agreement with the French major, Total, in February 2016 to explore the hydrocarbon potential in two ultra-deep water blocks (JS5 and JS6) off the East coast of Sri Lanka by conducting geological, geophysical and technical surveys, and analysing and interpreting the acquired data with the view to ultimately assessing the presence of commercially viable oil gas. Another agreement was signed between the Sri Lankan government and WesternGeco Seismic Holding Limited, a major oil and gas service company, to reprocess, market and sell 2D seismic data of Mannar Basin. This value-added reprocessed data will help to enhance interpretation and basin modelling capabilities of Sri Lanka.

Electricity

Total electricity generation in 2016 increased by 8.1 per cent to 14,149 GWh in comparison to 13,090 GWh recorded in 2015. Although hydro based power generation gradually improved during the second quarter of the year with increased rainfall received during May 2016, the drought conditions that prevailed during the first quarter and the latter part of the year caused a reduction in the share of hydropower in the total annual power generation in 2016. Accordingly, hydropower generation, excluding mini hydro generation, registered a decline of 29.0 per cent to 3,481 GWh, while the fuel oil-based power generation witnessed an increase of 96.1 per cent to 4,461 GWh in 2016 in comparison to the previous year. Meanwhile, total

coal power generation increased by 13.6 per cent to 5,047 GWh in 2016, relative to the previous year, despite breakdowns in the Norochcholai coal power plant. The generation of electricity through non-conventional renewable energy (NCRE) sources, including mini-hydro generation, decreased by 20.9 per cent to 1,160 GWh in 2016 from 2015. Accordingly, the share of hydro, fuel oil, coal and NCRE in total power generation remained at 25 per cent, 32 per cent, 36 per cent and 8 per cent, respectively. Meanwhile, the contribution of the power plants owned by the CEB to the total power generation decreased to 76.5 per cent in 2016 from 79.4 per cent in 2015. As in the previous years, the remainder of the total power generation in 2016 was purchased from Independent Power Producers (IPPs). Meanwhile, overall transmission and distribution loss as a percentage of total power

Chart 3.3
Electricity Generation Mix

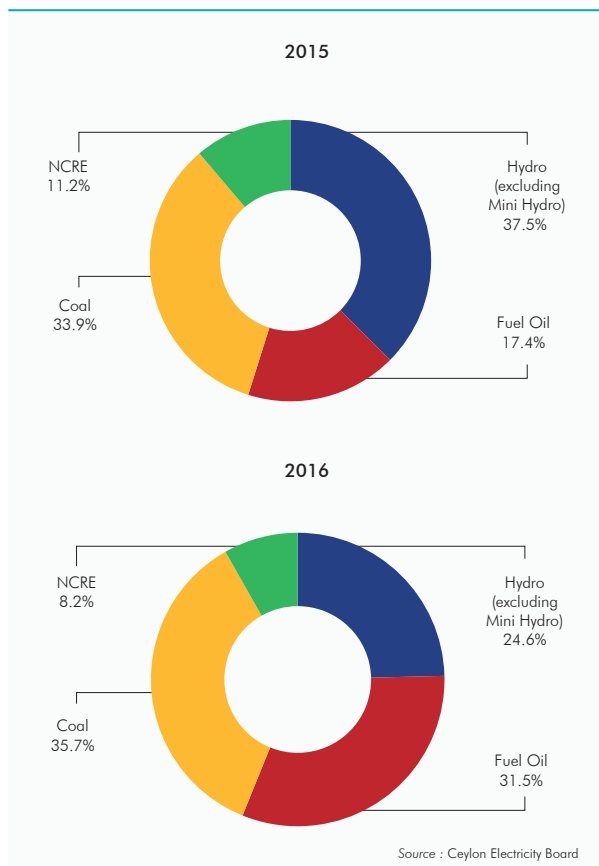


Table 3.4
Electricity Sector Performance

Item	2015 (a)	2016 (b)	Growth Rate (%)	
			2015	2016
Installed Capacity (MW)	3,847	4,018	-2.2	4.4
Hydro (c)	1,377	1,384	0.0	0.5
Fuel Oil (d)	1,115	1,215	-8.2	9.0
Coal	900	900	0.0	0.0
NCRE (e)	455	519	3.3	14.1
Units Generated (GWh)	13,090	14,149	5.9	8.1
Hydro (c)	4,904	3,481	35.0	-29.0
Fuel Oil (d)	2,275	4,461	-47.1	96.1
Coal	4,443	5,047	38.8	13.6
NCRE (e)	1,467	1,160	20.5	-20.9
Total Sales by CEB (GWh)	11,786	12,785	6.5	8.5
Domestic and Religious	3,943	4,272	10.0	8.3
Industrial	3,608	3,864	3.1	7.1
General Purpose and Hotel (f)	2,681	2,987	6.4	11.4
Street Lighting	108	109	0.0	0.3
Bulk Sales to LECO	1,446	1,553	6.9	7.4
LECO Sales (GWh)	1,352	1,465	6.4	8.4
Domestic and Religious	565	613	7.2	8.5
Industrial	264	276	4.8	4.5
General Purpose and Hotel (f)	497	553	6.7	11.3
Street Lighting	26	23	0.0	-11.5
Overall Transmission and Distribution Loss of CEB (%)	10.0	9.6	-4.5	-4.0
Number of Consumers ('000) (g)	6,170	6,500	4.1	5.3
o/w Domestic and Religious	5,444	5,732	4.0	5.3
Industrial	60	62	3.4	2.9
General Purpose and Hotel (f)	665	704	5.1	5.9

(a) Revised

(b) Provisional

(c) Excluding mini hydro power plants

(d) Inclusive of Independent Power Producers (IPPs)

(e) Refers to Non-Conventional Renewable Energy including mini hydro

(f) Inclusive of sales to government category

(g) Inclusive of LECO consumers

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

generation reduced to 9.6 per cent in 2016, from the 10.0 per cent in the previous year due to measures taken to reduce transmission losses by improving transmission lines.

The total sales of electricity in 2016 increased by 8.5 per cent to 12,785 GWh from 11,786 GWh recorded in 2015. High growth in electricity sales in recent years can be mainly attributed to low tariffs prevailing at present compared to 2014. Sales to the 'Industry' category that absorbed 32.6 per cent of the total electricity sales, increased by 6.9 per cent in 2016 in comparison to an increase of 3.2 per cent in 2015. During 2016, sales to 'Hotel' and 'General Purposes' categories accounted for 2.4 per cent and 24.2 per cent of the total

electricity sales, respectively. Meanwhile, in 2016 the electricity sales to 'Hotel' and 'General Purposes' categories recorded a growth of 18.0 per cent and 11.1 per cent, respectively, in comparison to the preceding year. In 2016, the electricity consumption by the 'Domestic' category, which absorbed 37.8 per cent of total electricity sales, grew by 8.3 per cent.

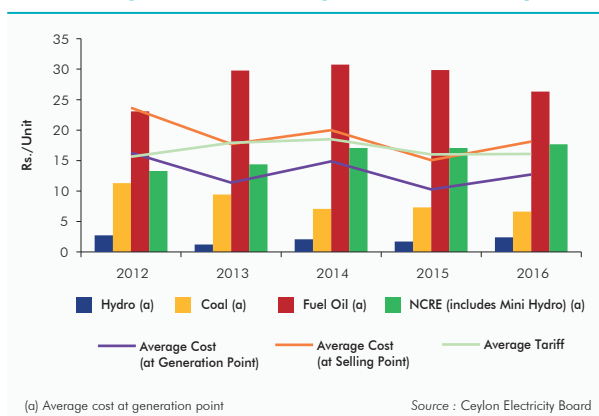
The financial performance of the CEB deteriorated in 2016 largely due to the low hydropower generation during the second half of the year in response to drought conditions that prevailed in most parts of the country.

The breakdown of the Norochcholai coal power plant also partly contributed to the increased requirement for thermal power generation during 2016. In 2016, the CEB's average cost of hydro, coal and fuel oil-based power generation was Rs. 2.38, Rs. 6.61 and Rs. 24.38 per unit, respectively. Further, the CEB purchased electricity from IPPs at an average purchasing price of Rs. 24.64 per unit. Accordingly, the CEB's average cost of electricity amounted to Rs. 18.08 per unit at the selling point, while the overall average tariff was Rs. 16.18 per unit, reflecting a loss margin of Rs. 1.90 per unit at the selling point. The average tariff charged by the CEB from domestic, general purpose, government, industrial and hotel

sectors stood at Rs. 13.41, Rs. 23.94, Rs. 18.25, Rs. 14.62, and Rs. 17.69 per unit, respectively. According to provisional financial data, the CEB recorded a loss of Rs. 13.2 billion in 2016, in contrast to a profit before tax of Rs. 19.4 billion recorded in 2015. The increased requirement for fuel oil-based power generation in response to low hydropower generation elevated the CEB's cost on fuel oil by 116.6 per cent to Rs. 50.1 billion in 2016. Meanwhile, the CEB's short term borrowings from commercial banks and other short-term liabilities to the CPC and IPPs increased by Rs. 35.7 billion to Rs. 91.7 billion by end 2016, while long-term outstanding liabilities, mainly to the banking sector and the government, decreased by Rs. 21.6 billion to Rs. 284.5 billion as at end 2016.

During 2016, several measures were undertaken to enhance the electrification level in the country. The government initiated a programme named 'Ratama Eliyai - Andura Duralai' with the aim of providing electricity at concessional rates to low-income families in order to achieve 100 per cent electrification in the country. According to CEB's provisional data, the level of electrification of the country has been raised to 99.3 per cent by end 2016 from 98.5 per cent at end 2015. Construction work of the Uma Oya Hydropower Project and Braodlands Hydropower Project was in progress during 2016 and these power plants are expected to be connected to the national grid by mid-2018 and mid-2019, respectively. In addition, preparatory work was in progress to construct the Gin Ganga Hydropower Project (20MW), three hydropower units in the Moragahakanda Hydropower Project (total of 25MW), Moragolla Hydropower Project (30.5MW) and the Mannar Wind Power Project (100MW). Further, plans are underway to establish two thermal power plants to meet the growing energy demand in the medium term until major thermal power plants are added to the system.

Chart 3.4
Average Cost and Average Tariff of Electricity



Accordingly, a 170MW furnace oil fired power plant will be established in the Southern region, which is expected to commission in 2017. In addition, a 300MW natural gas fired combined cycle power plant will be established in Kerawalapitiya, where the open cycle and combined cycle are expected to be commissioned in 2019 and 2020, respectively. It is expected that the major power generation projects that are currently being constructed and those that are in the pipeline will add a total of 757.5 MW altogether to the national grid by end 2020. In addition, by end 2016, the CEB has signed agreements for 105 NCRE projects, with a capacity of 288 MW.

The Ministry of Power and Renewable Energy launched a new community based power generation project called 'Soorya Bala Sangramaya' in collaboration with the Sri Lanka Sustainable Energy Authority (SLSEA), the CEB and the Lanka Electricity Company (Private) Limited (LECO) in 2016. The purpose of this project is to promote self-energy generation by households, religious places, commercial establishments and industries. Promotion of electricity generation through renewable sources has become a major focus of the government as well as private sector investors in the recent period. Under the 'Soorya Bala Sangramaya' project, any household or premises owner with a valid electricity account will be exempted from the requirement of obtaining a generation license to generate solar power. Further, the households that produce solar power in excess of their requirement can sell the excess to the national grid or bank it for later use. According to the electricity usage, the consumer can select a preferred option out of three schemes: Net Metering, Net Accounting and Net Plus (Micro Solar Power Producer). Such electricity consumers will be compensated for the damages of equipment caused by abnormal voltages and phase reversals in the electricity distribution systems with

effect from 13 January 2017. This programme is expected to add 200 MW of solar electricity to the national grid by 2020 and 1,000 MW by 2025.

The share of NCRE generation of the total power generation remained at 8 per cent of the total power generation in 2016. However, as many households and business enterprises are increasingly utilising standalone renewable power generation modes, the actual share of NCRE generation in total electricity generation is likely to be higher than this. The SLSEA, which has been actively engaged in promoting increased adoption and sustainable use of renewable energy sources in the country, has taken steps to issue energy permits and provisional approvals for on-grid renewable energy projects aimed at accelerating the development of indigenous renewable energy resources into commercial scale projects. Up to the end of 2016, 172 mini hydropower projects, 15 wind power plants, nine biomass power plants and five solar power projects have been commissioned, adding approximately 342.2 MW, 128.5 MW, 24.1 MW and 21.4 MW, respectively, to the national grid. Accordingly, the total electricity generation using renewable energy in 2016 amounted to 1,160 GWh. The SLSEA implemented several energy conservation programmes, focusing on regulatory interventions and strengthening energy efficiency in the services sector. In addition, two major renewable energy projects, namely solar rooftop power generation project, and estate micro hydro rehabilitation and repowering project, initiated by the SLSEA with financial assistance from the Asian Development Bank (ADB) are currently in progress. As the power sector faces many challenges, especially in relation to the supply of uninterrupted electricity for the entire country at affordable prices, the government has set targets to address the adverse impacts arising from high reliance on

imported fuel for power generation. Accordingly, as an alternative to imported fossil fuel, the government has targeted to attain 20 per cent of electricity generation of the national grid through new renewable energy sources by 2020. The government also targeted a reduction of around 10 per cent of the total energy consumption by 2020 through various energy conservation measures.

Although the generation of electricity through NCRE sources, including mini-hydro generation and solar power, is important to improve the energy security, the CEB needs to expand its base power capacity to meet the increasing demand. The energy security of the country has to be improved by reducing the dependence on hydropower generation that is contingent on weather factors. However, in order to meet the growing energy demand, mainly in the industrial sector and to facilitate private sector investments, the country will have to enhance its energy security by obtaining energy supplies at affordable prices. A more conducive policy environment, coupled with an effective regulatory regime, is important for widening the generation sources while minimising potential social unrest caused by power shortages. Energy security in the country requires integrated actions by all stakeholders. Further, the base power has to be further strengthened by giving due attention to low-cost power generation while meeting any positive deviation during the peak demand through hydro based power generation. In this context, establishing a mega scale power plant in the national grid is essential as per the generation expansion plan of the CEB. This will also improve the financial position of the CEB through reduced dependence on more expensive fuel oil based power generation and help to ensure energy security in the short to medium term.

Road Development

Road development and rehabilitation continued to be an area of priority in public investments by the government. The Road Development Authority (RDA) spent Rs. 49.3 billion on expressway development and Rs. 43.3 billion on highway development while spending Rs. 10.9 billion on widening and improvement of roads during 2016. At the same time, the RDA has invested Rs. 10.6 billion on the construction of bridges and flyovers and Rs. 118 million on the rehabilitation of roads, which were affected by natural disasters, such as landslides and floods, during 2016. Therefore, the total investments of RDA on roads and bridges amounted to Rs. 114.2 billion in 2016. During the year under review, the total length of National Highways (Class A and Class B roads) and Expressways maintained by the RDA were 12,210 km and 169.84 km, respectively.

Several road construction, rehabilitation and maintenance projects were implemented in 2016 with the financial support of foreign and local sources. The i-ROAD programme, funded by the ADB, intends to rehabilitate selected rural and national roads in the Southern, Sabaragamuwa, Central, North Central, North Western and Western Provinces. These rehabilitated roads will be mandatorily maintained by the i-ROAD programme for a three year period. The ADB is providing US dollars 800 million for the i-ROAD programme through a Multi-tranche Financing Facility (MFF), of which three tranches, amounting to US dollars 407 million, were released by end 2016. The Sri Lankan government also contributes to the project by investing US dollars 106 million under the i-ROAD programme. Accordingly, during 2016, Rs. 16.9 billion had been used to rehabilitate roads in selected districts. The Priority Roads Project, financed by the China Development Bank (CDB), focuses on rehabilitating sections of the national highway network

that are selected on a priority basis. Priority Roads Project-1 and Priority Roads Project-2 have been completed in 2015 and currently, the first phase of the Priority Roads Project-3 is in progress. The CDB provided US dollars 300 million for the first phase of the Priority Roads Project-3. The Northern Road Connectivity Project (NRCP), which rehabilitated and improved 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 and North Central Provinces, was completed in 2016. The total expenditure on national roads by the NRCP was US dollars 145.85 million, for which ADB contributed 89 per cent and the government contributed 11 per cent of the funds. Since US dollars 20 million loan proceeds were on surplus from the NRCP, the government requested the ADB to scale-up the financing through the NRCP-Additional Financing Project. Accordingly, the rehabilitation of 118 km of national highways, consisting of 61.2 km of Class A roads and 56.2 km of Class B roads in the Northern and North Central Provinces, was completed during 2016 using US dollars 133.5 million. In addition, the World Bank has allocated US dollars 36 million to the RDA under the Climate Resilience Improvement Project (CRIP) in order to improve the climate resilience of road infrastructure and a substantial amount of work under this project has already been completed. Further, several projects on bridge construction and rehabilitation were implemented through bilateral funding arrangements with Japan, France, Austria, Saudi Arabia, the United Kingdom, Kuwait and the OPEC Fund for International Development (OFID) during 2016. A new bridge over the Kelani River at Peliyagoda is planned to be constructed to mitigate and disperse the traffic congestion caused by the heavy traffic flow that is coming into the Colombo City through the Colombo-Katunayake Expressway. Preliminary work related to this project was completed in 2016 and the construction of the bridge will commence in May 2017. The Maga Neguma

Rural Road Development Programme also continued during 2016 targeting to rehabilitate 157 km of rural roads in several districts achieving 56 per cent of the physical progress by end 2016.

The construction work of several new expressways continued in 2016. The construction work of the Southern Expressway Extension project from Matara to Hambantota continued in 2016 and is scheduled to be completed in 2019. In addition, land acquisition work was in progress in respect of the 168.7 km long Central Expressway project, which will link Kadawatha and Dambulla. This project will also have an expressway component that connects Pothuhera and Galagedara. Further, work related to land acquisition, civil work contract, supervision consultancy, and survey and field testing work have been carried out for the Phase-III of the Outer Circular Highway (OCH) project. The section of the highway from the Kerawalapitiya Interchange to the Kadawatha Interchange will be constructed under the Phase-III of the OCH. Meanwhile, expressways that are currently in operation have generated a revenue of Rs. 7.0 billion during 2016, whereas the total revenue from expressways in 2015 stood at Rs. 5.3 billion. The total vehicle traffic in the Southern Expressway grew by 33.8 per cent to 10.4 million vehicles in 2016. Further, revenue generated from the toll collections from the Southern Expressway grew by 29.0 per cent to Rs. 3.2 billion during 2016 in comparison to the previous year. Traffic in the Colombo Katunayake Expressway grew by 17.0 per cent to 8.8 million vehicles, while the total revenue collection grew by 15.5 per cent to Rs. 2.5 billion during 2016 in comparison to 2015. The volume of vehicle traffic in the OCH in 2015 and 2016 stood at 2.3 million and 5.9 million, respectively. Accordingly, the total revenue collection from the OCH increased by 104.1 per cent to Rs. 1.4 billion during the year under review in comparison to the preceding year. The steady increase in

the usage of expressways indicates the higher purchasing power of the commuters and increased willingness to pay for such expressway networks. Therefore, it is important to carryout feasibility studies to construct additional expressways through PPPs to link all major cities and regions and thereby develop an efficient road network system throughout the country.

Several steps were taken during 2016 to improve road safety and reduce traffic congestion in major cities. Construction work in relation to flyovers at the Rajagiriya junction and Polgahawela and Ganemulla railway crossings was in progress during 2016. In addition, a technical assistance project for the establishment of an Advance Traffic Management System in the Colombo metropolitan region, supported by a grant from Korea International Cooperation Agency (KOICA), was in progress during the year. This project aims to support the economic activities of the Colombo metropolitan region by relieving traffic congestion, strengthening the traffic safety and improving public transport. Currently, the project is at the detailed design stage and the traffic management strategy is to be established by considering the current traffic congestion and traffic management capability of Colombo. Further, Pelican Crossings and traffic signals were installed in several locations throughout the country during 2016.

Road Passenger Transportation

Public road passenger transportation continued to play an important role in the provision of transport facilities throughout the country. The total operated kilometres of the Sri Lanka Transport Board (SLTB), at 451.5 million km, witnessed an increase of 2.5 per cent in 2016 from the previous year, while total passenger kilometrage increased by 6.1 per cent to 16.1 billion km. In 2016, the operated kilometrage

of private buses increased by 1.8 per cent to 1,030.5 million km, while passenger kilometrage improved by 2.0 per cent to 52.1 billion km in comparison to 2015. Meanwhile, annual bus fares were revised with effect from 01 August 2016 for both state and private bus operations. Accordingly, bus fares were increased by 6 per cent with the minimum bus fare increasing from Rs. 8.00 to Rs. 9.00.

The fleet operations of both the SLTB and the private bus sector improved, although the fleet position of the SLTB marginally deteriorated in 2016. The SLTB undertook a series of auctions in 2016 to dispose obsolete buses. As a result, the total number of buses owned by the SLTB declined by 266 to 7,781 by the end of 2016. During the year, Rs. 1,069 million was spent by the SLTB to rehabilitate and repair the existing bus fleet and the General Treasury provided Rs. 800 million to finance the expenses. In addition, the Ministry of Transport and Civil Aviation commenced a crash project with the objective of enhancing the fleet position of the SLTB and accordingly, 87 buses were rehabilitated. Due to the introduction of new bus trips and the resumption of bus trips that were stopped previously, the average number of buses operated per day by the SLTB improved to 5,315 in 2016 as compared to 5,284 operated in 2015. The number of buses owned by private operators increased to 19,614 in 2016 from 19,397 in 2015, while the average bus fleet operated by private bus operators increased to 17,131 in 2016, from 16,942 in the previous year. The number of inter-provincial permits issued by the National Transport Commission (NTC) for private bus operations increased from 3,114 to 3,212 during 2016, while the number of intra-provincial permits decreased from 16,503 to 16,322.

The NTC continued to provide transport facilities for needy and vulnerable groups. The NTC continued Sisu Seriya, Gemi Seriya and Nisi Seriya programmes through the SLTB to provide

socially obligatory transport services, which are not provided by the private sector. Accordingly, 1,299 Sisu Seriya services were in operation by the end of 2016 to cater the school children. Further, 10 Gemi Seriya bus services were in operation by the end of 2016 to provide economic and reliable transport facilities to the rural areas that lack proper transport modes. In addition, 123 Nisi Seriya bus services were in operation by end 2016 to provide reliable and safe transportation mode to the people who travel in late nights and early mornings. Accordingly, steps were taken to recommence 29 late-night intercity trips that initiate from the Central Bus Station in Colombo during 2016.

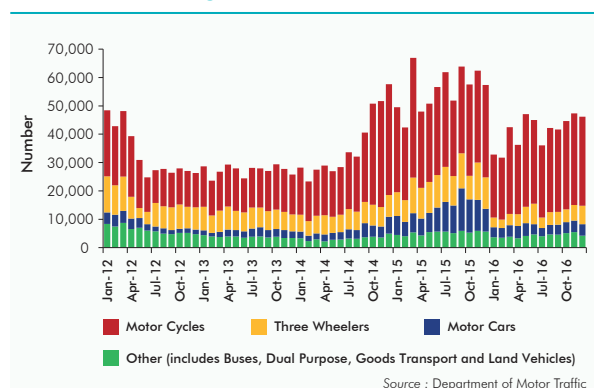
The financial performance of the SLTB improved moderately during 2016. The total revenue of the SLTB, at Rs. 40.9 billion, registered an increase of 14.2 per cent in 2016 in comparison to the previous year. Passenger fares, which account for about 65.6 per cent of the total revenue, registered an increase of 7.4 per cent in 2016 in comparison to 2015. Operating expenditure also increased by 3.6 per cent to Rs. 42.0 billion. Consequently, SLTB incurred an operating loss of Rs. 1.1 billion in comparison to an operating loss of Rs. 4.7 billion reported in 2015.

Several measures were undertaken to enhance the efficiency of state owned bus services in 2016, though substantial reforms within both the public and private bus transportation sectors are necessary to provide a cost effective, reliable and safe transport mode for the general public. At the end of 2016, the number of electronic ticket machines available at the SLTB was 7,500 machines, while around 3,800 new machines were purchased during the year under review. In this regard, Rs. 115.0 million was allocated for purchasing of new electronic machines. Meanwhile, feasibility studies were undertaken to strengthen the SLTB and railway

coordinated services. Currently, individual public transport modes are operating independently with very limited inter-modal connectivity. The efficiency of the overall transport system diminishes due to this lack of interconnectedness. Consequently, commuters tend to use their own private transport modes, particularly in urban areas, leading to heavy traffic congestions, fuel wastage and environmental pollution. Therefore, interconnected transport services, preferably based on integrated network schedules along with integrated ticketing, sales and marketing of different transport modes, will improve the overall service delivery. However, this requires strong co-operation and co-ordination among various institutions involved in providing transport facilities in the country. Further, necessary parking facilities should also be established at various transport hubs such as railway stations, in order to link the home of the commuter and the transport hub.

The registration of motor vehicles slowed down in 2016. The revision of taxes on motor vehicle imports, depreciation of the domestic currency against the US dollar, the macro-prudential measures implemented by the Central Bank and the gradual increase in interest rates have contributed to the deceleration in registration of new vehicles. In 2015, the Central Bank imposed a macro-prudential measure in the form of a Loan to Value ratio of 70 per cent in

Chart 3.5
New Registration of Motor Vehicles



respect of loans and advances granted by banks and financial institutions for the purchase of motor vehicles. The macro-prudential measure was aimed at limiting the number of new vehicle imports into the country. Consequently, the number of new vehicles, which registered a substantial increase of 55.7 per cent in 2015, declined significantly by 26.2 per cent to 493,328 in 2016. Registration of all vehicle categories, excluding goods transport vehicles and land vehicles, recorded a negative growth in 2016. Meanwhile, the registration of dual purpose vehicles and three wheelers declined by 31.9 per cent and 56.0 per cent, respectively, and the registration of motor cars declined by 57.2 per cent in comparison to the preceding year. New registration of buses also witnessed a 35.1 per cent decline during 2016 relative to 2015.

Rail Transportation

The Sri Lanka Railways (SLR) recorded a gradual improvement in its operational activities in 2016. Rail passenger kilometrage increased marginally by 0.1 per cent to 7,413 million km in 2016 in comparison to 7,407 million km in 2015, supported by relatively low tariffs, increased road traffic and the expansion of railway services to the Northern Province. Meanwhile, the goods kilometrage increased by 7.6 per cent to 140 million MT km in 2016 from 130 million MT km in 2015 mainly due to the commencement of the transportation of coal, and increased oil and cement transportation.

Several measures were taken to improve railway infrastructure in 2016. The SLR took steps to replace new bridges under the Belgium Bridge Project (BBP) with financial assistance from the Belgium government. Under this project, three bridges at Wellawatta, Angulana and Katugoda were replaced in 2016 and four more bridges are expected to be replaced in 2017.

Table 3.5
Salient Features of the Transport Sector

Item	2015 (a)	2016 (b)	Growth Rate (%)	
			2015	2016
1. New Registration of Motor Vehicles (No.)	668,907	493,328	55.7	-26.2
Buses	4,140	2,685	7.5	-35.1
Motor Cars	105,628	45,172	172.4	-57.2
Three Wheelers	129,547	56,945	63.9	-56.0
Dual Purpose Vehicles	39,456	26,887	89.7	-31.9
Motor Cycles	370,889	340,129	35.9	-8.3
Goods Transport Vehicles	7,142	7,563	39.5	5.9
Land Vehicles	12,105	13,947	33.3	15.2
2. Sri Lanka Railways				
Operated Kilometres ('000)	11,797	12,102	6.5	2.6
Passenger Kilometres (million)	7,407	7,413	8.3	0.1
Freight Ton Kilometres (million)	130	140	-0.3	7.6
Total Revenue (Rs. million)	6,335	6,623	7.2	4.6
Operating Expenditure (Rs. million)	14,049	13,396	-17.1	-4.6
Operating Loss (Rs. million)	7,714	6,773	-30.1	-12.2
3. Sri Lanka Transport Board				
Operated Kilometres (million)	440	452	18.6	2.5
Passenger Kilometres (million)	15,210	16,144	19.6	6.1
Total Revenue (Rs. million)	35,825	40,928	6.4	14.2
Operating Expenditure (Rs. million)	40,555	42,004	14.2	3.6
Operating Loss (Rs. million)	4,730	1,076	154.1	-77.2
4. Sri Lankan Airlines				
Hours Flown	96,494	96,225	-0.8	-0.3
Passenger Kilometres Flown (million)	12,747	12,855	0.2	0.8
Passenger Load Factor (%)	80	81	1.0	0.1
Weight Load Factor (%)	50	56	-2.9	11.5
Freight (MT '000)	103	108	7.5	5.0
Employment (No.)	7,020	7,020	1.7	0.0
(a) Revised				
(b) Provisional				
Sources: Department of Motor Traffic				
Sri Lanka Railways				
Sri Lanka Transport Board				
Civil Aviation Authority of Sri Lanka				

Initiatives have been taken by the SLR to conduct a feasibility study in collaboration with the ADB for the Colombo Suburban Railway Project (CSRP), which aims at improving railway services in the Capital City of Colombo and its suburbs. Under the CSRP, a feasibility study on a railway track between Veyangoda to Panadura is underway to improve the capacity and operating speed by modernising and upgrading the tracks, improving signalling and telecommunication infrastructure, and electrifying the suburban railway lines. The CSRP is expected to facilitate the procurement of fast and modern commuter trains and modernise the rolling stock maintenance facilities and upgrade selected railway stations to provide improved intermodal connectivity with other modes of public transport. Further, initiatives were taken by the

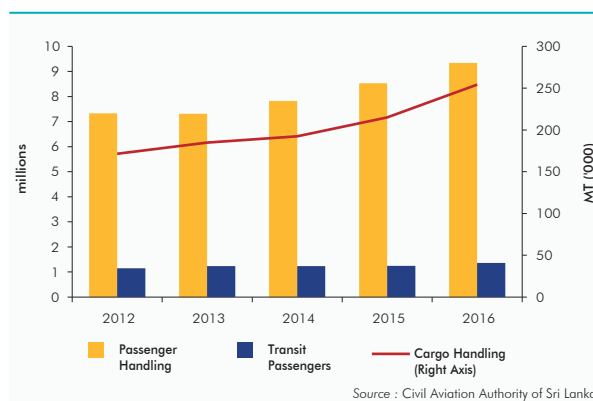
SLR in 2016 to commence transporting coal from Trincomalee to Norochcholai with the Lanka Coal Company (Pvt) Limited under a PPP agreement. Meanwhile, the SLR introduced rail buses for Kandy-Peradeniya and Kelani Valley lines in 2016. In addition, the SLR started to procure a number of new rolling stock with the view to strengthening rail travel in relation to other modes of transportation. Since road transportation is often subject to heavy traffic congestion, leading to energy wastage and increased losses of man-hours, it is highly necessary to introduce alternative modes of transportation in the period ahead. Hence, modernisation of the existing railway system, enhancing of the railroad coverage and improvements in the efficiency and reliability of railway services are essential to meet the increasing demand for transportation.

The financial position of the SLR moderately improved during 2016. The total revenue of the SLR increased by 4.6 per cent to Rs. 6.6 billion, while current expenditure decreased by 4.6 per cent to Rs. 13.4 billion, benefitting from low oil prices. The increase in revenue and the reduction in expenditure resulted in reducing operating losses of the SLR to Rs. 6.8 billion in 2016 from a loss of Rs. 7.7 billion in 2015. Capital expenditure of the SLR also witnessed a decline of 48.4 per cent to Rs. 15.7 billion in 2016 from Rs. 30.4 billion in the previous year, mainly due to the completion of the expansion of railway services in the Northern Province. In the meantime, the government decided to keep the rail tariff unchanged in 2016.

Civil Aviation

The civil aviation sector showed a considerable growth momentum in 2016. The air passenger movements through the Bandaranaike International Airport (BIA) increased by

Chart 3.6
Air Passenger and Air Cargo Handling



11.9 per cent to 9.5 million passengers in 2016 owing to the increase in tourist arrivals. In 2016, the BIA handled 4.9 million arriving passengers and 4.7 million departing passengers, inclusive of 1.4 million transit passengers. Further, the BIA handled 64,693 aircraft movements that consisted of 58,790 scheduled movements and 5,903 unscheduled movements. The total cargo handling at the BIA was 253,941 MT in 2016, which is an 18.1 per cent increase in comparison to the previous year. During 2016, BIA's flight network was further expanded with the commencements of commercial flights of Himalaya Airlines, Ukraine International Airlines as well as with the resumption of KLM Royal Dutch Airlines flights to Colombo. Mattala Rajapaksa International Airport (MRIA) handled 916 aircraft movements in 2016 in comparison to the 884 aircraft handled in the preceding year. Throughout the year, 4,772 passengers used the MRJA in comparison to 2,739 passengers in 2015. There were 37 international airlines in the civil aviation sector, including nine charter airlines, SLA and three cargo lines, while seven domestic airlines were in operation by the end of 2016. Mihin Lanka Airlines ceased its operations in October 2016 and SLA took over Mihin Lanka's schedule by upgrading all routes to full service operations from the budget flight operations.

The SLA incurred an operating loss of Rs. 14.1 billion in 2016 in comparison to a loss of Rs. 4.9 billion in 2015, mainly due to higher costs related to aircraft maintenance and lease. In 2016, the SLA replaced its last four-engine Airbus A340 aircraft that was used for two decades with two fuel efficient, modern, brand new, twin-engine A330-300 aircraft. In addition, two aircraft of Mihin Lanka were also absorbed to the SLA fleet. In 2016, the SLA had to incur the full maintenance and lease costs of the fleet introduced in 2015, leading to a higher operating expenditure and substantial operating losses in 2016 in comparison to 2015. By end 2016, the fleet of the SLA comprised 13 wide body aircraft and eight narrow body aircraft. This includes seven A330-300s, six A330-200s, six A320s and two A321 aircraft. Maintaining a massive loss making airline, which is funded through the government cash flow, is a huge burden to the government budget. Hence, the measures taken towards securing a strategic partner have to be accomplished to resolve the need for capital injection and debt consolidation and thereby remove the burden on the government budget.

Plans were underway to renovate and expand the BIA to improve the facilities at the airport and curb the capacity constraints. During the first half of 2016, bids were called for the overlaying of the BIA's runway to improve the surface condition of the runway and safe operation of aircraft. This project consisted of widening and overlaying the existing runway, overlaying of the northern part of the existing parallel taxiway, widening of existing taxiways, construction of new rapid exit taxiways and new bypass taxiways, installation of new airfield ground lighting system, and modification of the existing apron of the aerodrome of the BIA. The BIA runway was closed from 06 January 2017 to 05 April 2017 between 8.30 am to 4.30 pm for the

resurfacing activities. However, all possible flights were rescheduled within the revised operational hours. As a result, only 8.6 per cent of the flights to the BIA operated by the foreign airlines and 17.3 per cent of the SLA flights had to be cancelled during the period of runway resurfacing. In addition, the construction of the second terminal at the BIA is planned to commence in 2017 and will continue till 2020 with an investment of Japanese Yen 45,428 million. A concessionary loan agreement was signed in March 2016 between the Airport and Aviation Services (Sri Lanka) Limited (AASL) and the Japan International Cooperation Agency (JICA) to construct a multi-level terminal building with two pier passenger terminals, where arrivals and departures are separated vertically. Upon completion of the construction of the second terminal at the BIA, the current capacity of 6 million passenger movements per annum would increase to 15 million.

Port Services

The overall performance of port related services, which consists of handling containers, transshipments and cargo, improved in 2016, mainly supported by the increased operations at the Colombo International Container Terminal (CICT) and South Asia Gateway Terminal (SAGT). The total container handling in 2016 increased by 10.6 per cent to 5.7 million twenty foot equivalent container units (TEUs), from 5.2 million TEUs handled in 2015. The CICT handled mega container vessels that cannot be operated either at the Jaya Container Terminal (JCT) of the Sri Lanka Ports Authority (SLPA) or SAGT. Container handling at the CICT and SAGT in 2016 increased by 28.2 per cent and 19.0 per cent, respectively, in comparison to that of the preceding year. However, container handling at the JCT and Unity Container Terminal (UCT), which are fully owned by the SLPA,

Table 3.6
Performance of Port Services

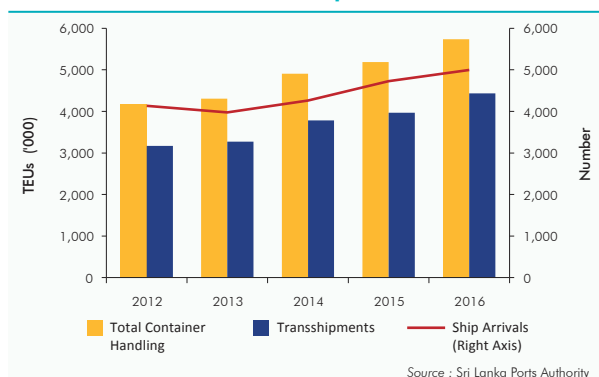
Item	2015	2016 (a)	Growth Rate (%)	
			2015	2016
1. Vessels Arrived (No.)	4,728	4,998	10.9	5.7
Colombo	4,197	4,405	12.2	5.0
Galle	72	96	20.0	33.3
Trincomalee	164	216	29.1	31.7
Hambantota	295	281	-11.9	-4.7
2. Total Cargo Handled (MT '000)	77,579	86,519	4.3	11.5
Colombo	73,718	81,879	4.1	11.1
Galle	542	771	37.5	42.4
Trincomalee	3,027	3,514	10.2	16.1
Hambantota	293	355	-38.3	21.2
3. Total Container Traffic (TEUs '000) (b)	5,185	5,735	5.7	10.6
4. Transshipment Container Handling (TEUs '000) (b)	3,967	4,435	4.9	11.8
5. Employment (No.) (c)	9,550	9,651	-0.5	1.1

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

Source: Sri Lanka Ports Authority

recorded a negative growth of 6.8 per cent in 2016 in comparison to 2015. The total transshipment container handling recorded an 11.8 per cent growth during 2016 relative to the previous year. At the same time, total cargo handling registered a growth of 11.5 per cent to 86.5 million MT in 2016, in comparison to the growth of 4.3 per cent recorded in the previous year. Growth in total cargo handling was mainly supported by the cargo handling at CICT and SAGT at the Port of Colombo, which witnessed a growth of 26.6 per cent and 25.5 per cent, respectively. Cargo handling at the terminals of the SLPA registered a negative growth of 1.8 per cent in 2016 in comparison to the preceding year.

Chart 3.7
Container Handling, Transshipment
Volume and Ship Arrivals



Several measures were undertaken during 2016 to develop ports in Sri Lanka in order to exploit the country's potential as a maritime hub in the South Asian region. The ADB and the SLPA signed a transaction advisory services agreement in February 2016 to develop the East Container Terminal (ECT) of the Colombo Port as a PPP. The pre-qualification process of this PPP commenced with the public announcement for Expressions of Interest (EOI) in June 2016. The government is currently in the process of evaluating the EOI applications with the assistance of the ADB. Meanwhile, the construction work of the Colombo Financial City, which was earlier named as Colombo Port City Project (CPCP), was restarted in March 2016. The Ministry of Megapolis and Western Development has allocated around Rs. 94 million in 2017 to develop the infrastructure facilities of the proposed port city development project. Meanwhile, the SLPA has taken steps to prepare a master plan for national ports of Sri Lanka with the assistance of the ADB, aimed at developing the port infrastructure in an optimum manner considering the industries and hinterland economy, multimodal transport networks, harmonisation with urban development as well as future port developments. The master plan covers all ports, including the restructuring of the SLPA, and addresses emerging business activities in oil and gas handling, passenger and cruise ship operations as well as transport sector development plans.

Additional investments under a PPP are required to fully exploit the locational advantage of the Hambantota Port. The Hambantota Port is located at the intersection of major international shipping routes within the world's busiest maritime transportation lanes. The Hambantota Port development was initiated with the objective of developing it as an industrial port, given the land availability in the area, geographical location and developed road networks. One of the key reasons

for poor performance of the Hambantota Port is the lack of sufficient hinterland industries that augment port activities. Therefore, measures taken to attract FDI to set up factories and industries around the Hambantota Port through a viable PPP mechanism would enhance the performance of the Hambantota port allowing it to exploit its full potential as an industrial port. The financial performance of the Hambantota Port has been weak since the commencement of port operations in 2010. In 2016, the Hambantota port registered a loss of Rs. 10.9 billion before taxes, in comparison to the loss of Rs. 18.8 billion before taxes recorded in 2015. The poor financial performance of the Hambantota Port has threatened the financial viability of the project and affected the overall financial progress of the SLPA. Therefore, a PPP is imperative to develop a viable business model and ensure the efficient management of the port.

The financial performance of the SLPA improved in 2016. As per the provisional financial statements, the SLPA recorded a profit of Rs. 1.0 billion in 2016 before taxes, in comparison to the loss of Rs. 14.2 billion before taxes recorded in 2015. The total revenue of the SLPA in 2016 has grown by 7.0 per cent to Rs. 43.0 billion, while the operating expenditure has declined by 7.5 per cent to Rs. 28.7 billion in comparison to the preceding year. However, since the SLPA has a substantial amount of foreign debt, the financial performance of the SLPA is significantly affected by the exchange rate movements. In 2016, the profit before foreign exchange losses stood at Rs. 11.1 billion, while the foreign exchange loss was Rs. 10.0 billion. Conversely, the profit before the foreign exchange losses was recorded as Rs. 6.0 billion in 2015, but the foreign exchange loss amounted to Rs. 20.2 billion. The foreign exchange losses arise due to the increase in rupee value of the foreign currency denominated liabilities caused by domestic currency depreciation.

Water Supply and Irrigation

The water supply and drainage sector witnessed a remarkable improvement in 2016, benefitting from the rising demand for pipe borne water connections. The National Water Supply and Drainage Board (NWS&DB) supplied 138,750 new water connections for domestic, commercial and industrial purposes, reaching 2.1 million total connections by end 2016. With this, the total number of water connections increased by 7.1 per cent in 2016 over the previous year. Accessibility to pipe borne water through large and medium scale water supply schemes managed by the NWS&DB also increased to 47.7 per cent of the total population in 2016, from 45.9 per cent in 2015. Meanwhile, the percentage of island-wide non-revenue water decreased to 25.6 per cent in 2016, from 27.3 per cent in 2015. Further, the percentage of non-revenue water in the Colombo city decreased to 45.7 per cent in 2016, from 46.2 per cent in 2015. While coverage levels and the service quality of water supply have improved significantly over the past decade, the need for water services has outstripped the government's ability to provide sufficient water and sanitation to the public and ensure equitable access to those services throughout the country. Addressing this need, the NWS&DB has commenced 13 new projects in 2016 with financial facilities from both local and foreign funding sources, aimed at providing safe drinking water to public. Meanwhile, the NWS&DB has planned to initiate six new water supply projects covering North-Central, Sabaragamuwa, Western, Uva and Southern Provinces, targeting around 375,915 beneficiaries in 2017. Further, the NWS&DB has continued its work to reduce the incidence of water borne diseases through several projects, by addressing the issue of pollution in rivers and street drains.

Table 3.7
Water Supply by National Water Supply & Drainage Board

Item	2015 (a)	2016 (b)	Growth Rate (%)	
			2015	2016
Total Number of Water Supply Schemes (c)	331	337	0.6	1.8
Total Number of New Connections provided during the period	121,723	138,750	-2.0	14.0
Total Number of Connections (c)	1,953,721	2,092,471	6.6	7.1
Total Water Production (MCM) (d)	600	649	4.3	8.2
Non Revenue Water (%)				
Colombo City	46.2	45.7 (e)	-1.0	-1.0
Islandwide	27.3	25.6 (e)	-4.3	-6.4

(a) Revised

(b) Provisional

(c) As at year end

(d) MCM=Million Cubic Metres

(e) Estimates

Source: National Water Supply and Drainage Board

The financial position of NWS&DB has improved in 2016. As per unaudited provisional financial statements, the NWS&DB has recorded an operational profit of Rs. 1,733 million, in comparison to an operational loss of Rs. 65 million recorded in 2015. Total revenue grew by 17.5 per cent to Rs. 25.1 billion mainly due to the increased number of connections provided during the year, while operational and maintenance costs increased by 9.1 per cent to Rs. 23.3 billion. Further, the NWS&DB incurred a capital expenditure of Rs. 32.7 billion, which is an increase of 18.7 per cent in comparison to the previous year. Meanwhile, as per the Budget proposal 2016, the Public Utilities Commission of Sri Lanka (PUCSL) prepared an action plan to strengthen its regulation on the NWS&DB and submitted this to the Ministry of City Planning and Water Supply for implementation.

The government continued its active role of improving the irrigation system of the country with the aim of increasing agricultural production and productivity. To this end, funds were allocated for 20 major irrigation schemes to ensure the provision of required water supply for agriculture activities in major cultivation areas. Meanwhile, the Climate Resilience Improvement Project (CRIP), which was initiated in 2014 by the Ministry of Irrigation and Water Resources

Management with a view to mitigating the adverse impacts of climate change and developing infrastructure that withstand extreme climate shocks, continued in 2016, covering 21 major irrigation schemes in nine districts of the country. Under the CRIP-Additional Financing Project, plans are underway to rehabilitate 25 major irrigation schemes in eight districts. The CRIP mainly focuses on establishing a process that would build a more climate resilient economy, since the current knowledge on the impact of climate, flood and drought modelling and scenario analysis are not adequate. The government allocated funds amounting to Rs.11.2 billion for the rehabilitation of 20 major existing irrigation schemes in 2016. During the year, the Irrigation Department spent Rs. 8.3 billion on major irrigation schemes, which is a decrease of 4.4 per cent from the previous year. The expenditure incurred on major irrigation schemes during the year included Rs. 5.7 billion invested on the Yan Oya Reservoir and Rs. 0.6 billion spent on the Deduru Oya Reservoir. Nevertheless, the country requires additional water storage facilities to cope with the erratic weather pattern, which has affected crop cultivation and hydropower generation in the recent period. Hence, it is necessary to de-silt existing reservoirs in order to enhance the storage capacity of existing reservoirs and minimise the negative implications originating from both flood and drought conditions.

3.3 Social Infrastructure Policies, Institutional Framework and Performance

Health

During 2016, the government continued to improve the physical infrastructure and human resources in the health sector to provide quality and accessible healthcare facilities to

the public. As per the provisional data, there was one qualified doctor for every 1,036 persons and one nurse for every 652 persons in state hospitals by end 2016. Further, as at end 2016, there were 598 hospitals with 3.6 beds for every 1,000 persons in the state health sector. Numerous physical infrastructure development projects in relation to the state-managed health sector were in progress during 2016. The improvements in emergency treatment units managed by the line-ministry hospitals, construction of a state-of-the-art cancer ward complex at the National Institute of Cancer in Maharagama, development of an ambulatory care centre at the National Hospital of Sri Lanka, development of the clinical building and out-patient departmental complex at the district general hospital in Kalutara, extension of the pre-mature baby unit at De Soyza maternity hospital and the development of estate sector hospitals are some of the infrastructure development projects that were in progress during 2016.

Although Sri Lanka has been successful in mitigating certain communicable diseases, the country still faces numerous challenges in curtailing several other communicable diseases such as Dengue. Sri Lanka was

certified as a Malaria free country by the World Health Organisation (WHO) in September 2016, following the successful completion of three consecutive years without reporting a single indigenous Malaria case. This WHO certification has been granted subsequent to a rigorous country-wide evaluation of the absence of indigenous transmission of Malaria, particularly in the remote and former Malaria prone areas, and by assessing the capacity of the country's healthcare system to prevent a recurrence. Although there were 41 imported Malaria cases reported by tourists, especially from India, Pakistan and African countries during 2016, the Anti-Malaria Campaign has extended prompt service by providing diagnostic and treatment facilities free of charge to both government and private hospitals. In addition, the WHO declared Sri Lanka as a country that has eliminated Lymphatic Filariasis in 2016, since Sri Lanka has reached the required target microfilaria rate of less than one per cent. However, Dengue continues to be a major public health hazard at present. During 2016, a total of 55,150 Dengue cases was reported from the entire country, which corresponds to a rate of 260 cases per 100,000 population. In 2015, the incidence of Dengue was 142 cases per 100,000 population. The increase in the number of Dengue cases in 2016 can be mainly attributed to extreme environmental and weather conditions that prevailed during the year. The Ministry of Health, Nutrition and Indigenous Medicine (MOH) has implemented numerous activities to minimise the incidence of Dengue Haemorrhagic fever by early diagnosis and proactive case management while conducting a series of source reduction programmes and two national Dengue control weeks. Consequently, despite the high number of Dengue cases reported in the year, the fatality rate from Dengue has been limited to

Table 3.8
Salient Features of Health Services

Item	2015	2016 (a)
1. Government (No.)		
Hospitals (Practicing Western Medicine)	610	598 (b)
Beds	76,781	76,829
Primary Medical Care Units	475	487 (b)
Doctors	19,429	20,458
Assistant Medical Practitioners	1,017	1,011
Nurses	32,272	32,499
Attendants	8,689	8,268
2. Ayurvedic (No.)		
Ayurvedic Physicians (c)	22,672	23,082
3. Total Govt. Expenditure on Health (Rs. billion)		
Recurrent Expenditure	177.8	186.1
Capital Expenditure	140.6	155.4
	37.2	30.7

(a) Provisional
(b) 12 divisional hospitals have been demoted to Primary Medical Care Units
(c) Registered with the Ayurvedic Medical Council

Sources: Ministry of Health, Nutrition and Indigenous Medicine
Department of Ayurveda
Ministry of Finance

0.16 per cent. Meanwhile, country-wide surveillance programmes and early diagnosis and treatment programmes were carried out in relation to many other communicable diseases such as Tuberculosis, Zika, Japanese Encephalitis and Leptospirosis. Further, a total of 527 health education and awareness programmes has been conducted in relation to Human Immunodeficiency Virus (HIV) and Sexually Transmitted Diseases (STDs) during 2016 and 4,532 HIV tests have been performed in the country through rapid HIV testing and reach activities among More-At-Risk-Populations (MARPs).

Chronic Kidney Disease of unknown aetiology (CKDu) continues to be a serious public health issue for Sri Lanka.¹ In order to address this serious health hazard, the MOH has expanded the number of sentinel sites in the national CKDu surveillance programme from 30 to 50 hospitals during 2016. Necessary infrastructure development and staff training were completed in the newly established sentinel sites. Meanwhile, the 'National Renal Registry', which is a web-based real-time patient registration system especially for the CKD/CKDu patients, has expanded and approximately 5,500 new CKD patients have been registered in this system during the year under review. With the consensus of technical experts, the screening guidelines for CKD in Sri Lanka were revised during 2016 and health staff were trained according to the new set of guidelines. In addition, the water quality assessment laboratory in Anuradhapura was upgraded during 2016 with new chemical analysers that can detect heavy metals in water. This laboratory will be fully functional in 2017.

¹ The geographical distribution of CKDu indicates that, all areas of Anuradhapura and Polonnaruwa districts, Polpithigama and Giribawa Divisional Secretariat (DS) divisions in the North Western Province, Dehiathakandiya and Padavi Sripura DS divisions in the Eastern Province, Mahiyanganya and Rideemaliyadda DS divisions in the Uva Province and Welioya, Vavuniya and Vavuniya South DS divisions in the North Province and Wilgamuwa DS division in the Central Province are high risk areas for CKDu.

Source: MOH

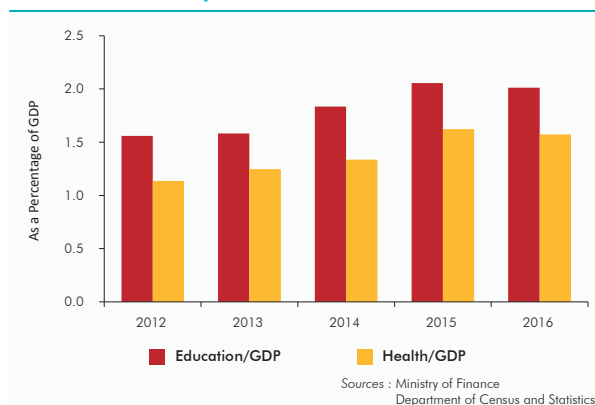
Given the increasing geographical distribution of CKDu prevalence and the serious economic implications of this disease on already poor rural households, it is crucial to strengthen and expedite the efforts of the government, health officials and non-governmental organisations to curtail this health issue. In this regard, provision of clean drinking water to persons in affected areas, improving facilities for early detection of the disease and surveillance, enhancing treatment facilities for CKDu for hospitals in high risk areas, expediting research work on the root cause of CKDu and intensive region-wide programmes for pollution prevention and environmental protection are necessary.

Non-Communicable Diseases (NCD) have emerged as a challenge for the Sri Lankan health sector with socio-economic, demographic and life-style transitions occurring in the country. The MOH continued to strengthen primary care facilities to treat the chronic NCD patients while providing treatments through the essential drug policy. The National Policy on Chronic NCD Prevention focuses on four major shared modifiable risk factors that potentially cause NCDs: smoking, alcohol, obesity, and unhealthy diet and sedentary lifestyles. The strategies for reducing these risk factors are implemented through the existing health network with the assistance of both government and non-governmental organisations in the country. During 2016, the MOH decided to include pictorial warnings covering 80 per cent of the cigarette packet with the aim of developing a high level of awareness of the health risks, suffering and disfigurements caused by tobacco among all categories of age. Further, compulsory colour coding of beverages to indicate their sugar content was also introduced in 2016. The public awareness created by these programmes on

healthy food choices is essential to prevent NCDs. Accordingly, the MOH plans to launch a social marketing campaign on the prevention and control of NCDs and conduct health promotion programmes for children from Grade 6 to 9, by distributing 1 million booklets. Further, the MOH plans to initially establish health corners at 400 schools to educate the children on being conscious about their Body Mass Index (BMI), diet and physical activities. Prevention of injuries also has been a focal point of the NCD Unit. Injury prevention strategies of the NCD Unit involve planning of programmes, developing guidelines and policies to prevent almost all types of injuries that could occur during one's lifetime, covering all ages from infancy to adulthood. Accordingly, an injury surveillance programme was launched in base and above hospitals in Sri Lanka in June 2016. In addition, a social media campaign and several public awareness programmes were also conducted to create public awareness on injury prevention.

During the period under review, the private sector participation in healthcare service delivery continued to expand. By end 2016, there were 225 private hospitals, with a total bed capacity of 6,330, administering western medicine. In addition, there were 22 Ayurvedic private hospitals with a total of 326 beds. As at end 2016, there were 26 private medical ambulance services, 146 full-time private dental surgeries, 521 full-time general practices/ dispensaries/ medical clinics, 24 full-time medical specialist practices, 967 medical laboratories and 502 medical centres/ screening centres/ day-care medical centres/ channel consultations registered under the MOH. In 2016, the MOH, in collaboration with the Private Health Services Regulatory Council and the National Apprenticeship and Industrial Training Authority (NAITA), initiated

Chart 3.8
Government Expenditure on Health and Education



the conduct of refresher/ gap filling courses for nurses and dental surgery assistants, who are currently employed at private hospitals, medical centres and dental surgery practices. With increased demand for healthcare and screening for NCDs, the private sector plays a critically important role in providing healthcare services in the country. Nevertheless, it is important to regulate private healthcare providers to ensure the maintenance of appropriate and consistent standards, and safe practices of healthcare delivery.

Education

Quality and equitable access to primary and secondary education for all children is essential for the economic and social development of the country. According to the Ministry of Education, the student Net Enrolment Ratio (NER) of the age group of 5 to 14 years stood at 97.35 per cent, whereas NER for male and female student categories was 98.38 per cent and 96.31 per cent, respectively in 2016. Conversely, the gross survival rate through Grade 1 to Grade 11², which measures the school participation, increased to 86.54 per cent during 2016, from

² The gross survival rate through Grade 1 to Grade 11 is the proportion of students who are currently studying in Grade 11 as a percentage of the total students who enrolled in Grade 1 ten years ago.

85.09 per cent in 2014. The survival rate to Grade 11 of male and female students stood at 83.31 per cent and 89.9 per cent, respectively. The Western Province recorded the highest gross school survival rate of 92.21 per cent and the lowest levels were recorded for the Eastern Province (75.59 per cent) and the Northern Province (79.91 per cent). The gross survival rate through Grade 1 to Grade 11 is particularly low among the male students in the Eastern Province (71.59 per cent) and the Northern Province (75.36 per cent). The low gross survival rate in the Eastern and Northern Provinces is a consequence of severe poverty levels prevailing in these areas that compel the children, particularly the male students, to drop-out from schools and seek employment in order to contribute to the household income. However, the lack of proper education reduces the employability of these children that can lead to pockets of poverty in these regions.

The Ministry of Education has taken several steps in 2016 to improve school participation levels. With the objective of improving survival rates in education, a new education policy proposal has been introduced by the Ministry of Education in 2016 to provide 13 years of mandatory education for all children, where education meet the aptitudes and expectations of the students as well as job market requirements. In addition, the Ministry of Education conducted several capacity development programmes for the principles, deputy principles and teachers targeting the low performance education zones, such as the Northern Province, to enhance their knowledge and teaching capacity. Further, free vouchers were provided to approximately 4.3 million school children in 10,145 schools to purchase school uniforms. In addition, the Ministry of Education has spent Rs. 4.0 billion on the mid-day meal programme, which benefitted 973,245 students from 6,946 schools. Further,

the World Food Programme implemented in the Northern Province benefitted 162,272 students in 965 schools. However, an incentive programme for school participation, targeting the children of low-income households, is necessary to improve the school survival rates, especially in the rural and estate sectors.

The Ministry of Education in 2016 implemented several measures to reduce the disparity in general education for school children throughout the country. The concept of 'Nearest school is the best school' has been

Table 3.9
Salient Features of General Education

Item	2015 (a)	2016 (b)
1. Total Number of Schools	10,997	11,021
Government Schools	10,144	10,162
Primary	3,704	3,778
Secondary	6,440	6,384
o/w National Schools	352	353
Other Schools	853	859
Privenas	749	754
Private & Special Schools (c)	104	105
2. Total Number of Students	4,418,173	4,345,517
Government Schools	4,129,534	4,143,107
Other Schools	201,034	202,410
Privenas	64,806	66,003
Private & Special Schools (c)	136,228	136,407
International Schools (d)	87,605	n.a
3. Total Number of Teachers	259,967	249,374
Government Schools	236,999	235,999
Other Schools	13,851	13,375
Privenas	6,776	6,503
Private & Special Schools (c)	7,075	6,872
International Schools (d)	9,117	n.a
4. New Admissions (e)	323,337	326,966
5. Student/Teacher Ratio		
Government Schools	17	18
Other Schools	15	15
International Schools (d)	10	n.a
6. Primary Net Enrolment Ratio (5-9 yrs)	97.52	95.91
7. Secondary Net Enrolment Ratio (10-14 yrs)	95.14	95.91
8. Age Specific Enrolment Ratio (5-14 yrs)	98.36	97.35
9. Total Number of Teacher Training Schools	8	8
10. Number of Teachers Trained during the Year	994	2,294
11. Total Number of National Colleges of Education	19	19
Total Number of Teacher Trainees	6,624	9,478
Number Passed Out during the Year	2,467	2,073

(a) Revised

(b) Provisional

(c) 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)

(d) 2015 data are based on an islandwide survey carried out by the Ministry of Education in 2015

(e) Government schools only

Source: Ministry of Education

introduced by the Ministry of Education to provide equal opportunities in education for all students, irrespective of the region or the school type. Under the '1000 secondary schools development' project, 995 technological laboratories have been constructed, out of which 961 laboratories were functioning by the end of 2016. In addition, technology faculty buildings are proposed to be constructed in selected 251 secondary schools. Accordingly, 226 technology faculties have been constructed, out of which 216 faculties were in function by the end of the year under review. Under the 'Sanitation First' programme, which aims to improve the sanitary and water facilities in selected 1,166 schools, the construction work of sanitary facilities in 908 schools have been completed by the end of 2016. In addition, several infrastructure development activities were carried out during the year to enhance the physical condition of public schools.

Improving the quality of general education is crucial for the personal and professional development of individuals, and thereby generate a productive labour force for the future. Accordingly, teacher training programmes to improve the teaching quality in primary and secondary schools were conducted in 2016 by the Ministry of Education. Several programmes were conducted through seven Teacher Training Colleges to improve the teaching capacity. Meanwhile, 45,000 teachers were trained through 109 teacher training centres, using short-term teacher development workshops and teacher professional training programmes. In 2013, the Technology subject stream was introduced for the GCE Advanced Level through 251 schools. While recognising the importance of scientific literacy and mathematic skills for knowledge generation, and discovery and innovation, the Ministry of Education has implemented several

training programmes for teachers in the Science and Mathematics subjects. Furthermore, exposure to ICT from the primary and secondary school level is important to develop technological adaptability among children, which in turn enhances their career opportunities and employability in the future. During the year under review, 300 ICT graduate teachers and 200 teachers that passed out from the National Colleges of Education were further trained by the National Institute of Education on teaching ICT at the school level. Meanwhile, the construction work of five new Zonal ICT centres in several districts were completed, while eight are in progress. In addition, the Ministry of Education with the assistance of the ICTA, which is functioning under the Ministry of Telecommunication and Digital Infrastructure, has planned to introduce digital education system by establishing digital classrooms with smart devices. A pilot programme will be conducted from 2016 to 2018 by establishing 300 digital classrooms in 150 schools.

The non-state participation in primary and secondary education continued to increase in 2016. During the year under review, there were 105 private schools (excluding international schools) and 754 Pirivenas functioning in the country. The total number of students in private schools (excluding international schools) increased to 136,407 in 2016, from 136,228 in the previous year. The number of students enrolled in Pirivenas was 66,003 during 2016. Currently, the government approved private schools are under the supervision of provincial and zonal authorities. However, the regulation, supervision and monitoring of international schools are not under the purview of the Ministry of Education or the provincial or zonal authorities. At present, the number of students enrolled in international schools is on the rise and it is important to have some mechanism to regulate and monitor these schools to ensure the quality of education provided by these

institutes. However, the regulation and monitoring of international schools by the government should not hinder the smooth functioning of high-standard international schools.

Recognising the importance of meeting requirements in the labour market in a knowledge driven economy, the Ministry of Higher Education and Highways and the University Grants Commission (UGC) have taken several initiatives in 2016 to uplift the university education in terms of quality and quantity. The UGC admitted 28,952 students to the state universities for the 2015/2016 academic year through the normal and special intakes, based on the results of GCE (A/L) examination held in 2015. During the year, the UGC finalised the admission of 1,333 students through special provision for the 2014/2015 academic year, based on the results of GCE (A/L)-2014. Further, 38 undergraduate degree programmes and 15 post-graduate degree programmes were approved by the UGC during 2016. In addition, nine new faculties, 34 new departments and three new centres were established within the public universities during the year. However, the successive governments have identified that the limited resources in the existing 17 state universities are not sufficient to provide higher education opportunities to a large number of the student population. Therefore, the government has taken measures to allow private investors to invest in higher education and establish Non-State Higher Education Institutes (NSHEIs), which offer degree programmes. These NSHEIs are important to minimise the foreign currency outflows caused by domestic students who enrol in foreign universities and to attract foreign inflows via enrolling foreign students in these NSHEIs. As of end 2016, 17 NSHEIs have been recognised as degree awarding institutes by the Ministry of Higher Education,

while 96 accredited local degree programmes are offered by these institutes. According to the Ministry of Higher Education, more than 4,000 students annually enrol in these recognised degree programmes conducted by NSHEIs. Further, around 11,500 students were following local degree programmes in 15 degree awarding NSHEIs in 2016. Further, approximately 7,000 students have enrolled for affiliated degrees offered by these NSHEIs. However, NSHEIs need to be accountable for their social responsibility in providing education services while attaining profit making objectives. Maintaining the quality of education provided by the NSHEIs is essential to meet the expectations of enrolled students as well as to produce right skilled labour, who can contribute to the economy. Hence, while encouraging private investments in the higher education sector, it is crucial to monitor the quality of the degree programmes offered by these private institutions and the accreditation of degree

Table 3.10
Salient Features of University Education (a)

Item	2015 (b)	2016 (c)
1. Universities (No.)	15	15
2. Other Higher Educational Institutions (No.)	18	18
3. No. of Students (Undergraduates) (d)		
Universities (e)	83,778	86,061
Institutes	3,307	3,376
Open University	22,097	22,546
4. Total No. of Staff (All Universities)		
Academic	5,199	5,422
Non-Academic	10,726	11,096
5. Student/Teacher Ratio	17.8	17.5
6. Age Specific Undergraduate Enrolment Ratio (19-23 yrs) (d)	6.6	6.9
7. Progression to University from GCE (A/L)		
Eligible for University Admission (%)	60.46	51.43
Admission as a Percentage of Eligible (%)	17.14	18.61
8. No. Graduated (f)	37,058	38,501
Basic Degree	29,545	30,819
Postgraduate Degree	7,513	7,682
9. New Admissions for Basic Degrees (g)	25,676	28,952
10. No. Eligible to be Admitted to Universities	149,572	155,550

(a) Universities and higher education institutions that come under the purview of University Grants Commission Source: University Grants Commission

(b) Revised

(c) Provisional

(d) Excluding external degree courses

(e) Excluding Open University

(f) Including external degrees and Open University

(g) Excluding external degrees and Open University

programmes. In order to fulfil this long-felt need, the Ministry of Higher Education is in the process of drafting a bill to establish a 'Quality Assurance and Accreditation Commission', which will regulate all the higher education institutions.

The Technical and Vocational Education and Training (TVET) sector continued to provide educational opportunities to a large number of students by offering career specific educational programmes to meet the dynamic labour market requirements. The expansion of the TVET sector is important to provide educational opportunities to the students who miss the opportunity of secondary or tertiary education through schools and state universities and to cater to their different expectations, skills and aptitudes. By the end of 2016, the TVET sector consisted of 313 public institutions and 451 private and non-governmental institutions providing 2,656 accredited courses in relation to a wide array of subjects, such as automobile repair and maintenance, building and construction, electrical, electronics and telecommunications, finance, banking and management, food technology, ICT and multimedia, textile and garments, leather and footwear and refrigeration and air-conditioning. The Technology subject stream introduced for the GCE Advanced Level enables the students to

build a link between their secondary and tertiary education through the TVETs, even if they miss the opportunity of university entrance. At the same time, in order to minimise the possible negative impact relating to scarcity of skilled labour, the government has allocated around Rs. 500 million to train 10,000 personnel through the NAITA, Sri Lanka Vocational Training Authority (SLVTA) and the Department of Technical Education and Training (DTET). Under these training programmes, 9,306 youths have been registered at the NAITA for training at model projects of the National Housing Development Authority (NHDA) and construction projects of major contractors.

Housing and Urban Development

The government continued to implement several housing development programmes with the aim of enhancing the living standards of low and middle income groups in the country. The NHDA and the Urban Settlement Development Authority (USDA) continued to play an important role in providing housing facilities to meet the increasing demand from low and middle income groups. In this regard, the Ministry of Finance has allocated around Rs. 6,432.0 million in 2016. In line with this, the Ministry of Housing and Construction has initiated a number of new housing development projects, such as scattered housing programme, houses for families of CKDu patients, housing programme for widows, reawakened villages programme, Welioya special project, Sevana villages housing programme, Sampath Sevana housing programme, and middle class housing programme, through the NHDA and Urban Development Authority (UDA). During 2016, the NHDA completed around 101,729 housing units, of which 7,559 units were newly built. Further, the NHDA implemented a programme to grant title deeds and deeds of lease to beneficiaries. Accordingly, around 1,851 title deeds and 7,599

Table 3.11
Salient Features of Tertiary and Vocational Education and Training

	2015	2016 (a)
1. Number of Registered TVET Institutions (b)	1,353	764
Public	635	313
Private and Non-Governmental Organisations	718	451
2. Total Number of Accredited Courses	2,291	2,659
Public	1,588	1,876
Private and Non-Governmental Organisations	703	783
3. Number of Issued NVQ Certificates	44,148	47,017
DTET	4,171	4,169
NAITA	11,787	11,182
VTA	10,484	17,517
NYSC	1,244	1,957
Private	16,462	12,192

(a) Provisional
(b) As at year end

Source: Tertiary and Vocational Education Commission

deeds of lease have been granted during 2016. Meanwhile, the NHDA and USDA planned to increase the housing stock through various programmes targeting the low-income and middle income groups who undergo immense difficulties in the absence of a house of their own. The construction work under the Lindula and Chilaw housing development programmes was completed in 2016, while construction of 356 housing units was in progress under the Lunawa housing project by the USDA. Further, the USDA implemented several human development programmes, including establishment of the Swashakthi community based organisations, empowering women of underserved settlements, and conducting community action workshops, covering Colombo, Hambantota, Kalutara, Trincomalee, Anuradhapura, Kurunegala, Galle and Ampara districts, to uplift the living conditions of the low income communities. The responsibility of coordination with regard to ongoing housing projects in the Hambantota district was also entrusted to the USDA.

Several policy measures were taken in 2016 with a view to providing access to sustainable housing for low income households. Steps were taken to revise the national housing policy to reflect the vision of the government while focusing on mitigating the impact of natural disasters and implementing the concept of sustainable human settlement development. Meanwhile, the absence of reliable and updated data and information on the current housing needs of the country posed a major problem to the Ministry of Housing and Construction in making policy decisions and planning in order to meet the housing requirements of the country. Therefore, steps were taken to conduct a survey at the Divisional Secretariat level, to collect data on the housing needs of all Grama Niladhari divisions' level covering the entire country. Thus far, the Ministry of Housing and Construction has received data from 315

Divisional Secretariat Divisions out of 331 Divisions that have been surveyed. According to the current findings of the survey, around 2.4 million families will be in need of a new house in the future, due to various reasons, such as poor condition of existing houses, and permanent and temporary migration to other areas of the country, while around 1 million families are in need of infrastructure facilities, such as electricity, sanitary facilities and road access.

The UDA continued to play an important role in improving housing facilities of people in urban underserved settlements while being actively involved in the development of urban infrastructure. During 2016, the UDA completed 266 housing units under the Siyasetha Sevana housing programme, while the construction of 12,963 housing units was in progress. The development of the Colombo Fort-Pedestrian web and the construction of relocation shops commenced during 2016 with the objective of improving the utilisation of lands, which are currently not in use due to unorganised development, for organised activities. The UDA continued its priority investments on developing major towns under its town development programmes. Accordingly, several town development projects, such as drainage and land development, town centre development, road development and construction of multi-storied car park, commercial complexes, and public markets, were in progress during 2016.

Urbanisation, if managed properly, fosters businesses and industries, provides employment and high income opportunities to the residents, including migrants from rural areas, while ensuring the general wellbeing of individuals. Therefore, urban transition is considered as one of the major challenges to a developing country, requiring massive expansion in urban infrastructure and services. Currently,

many areas in Sri Lanka are undergoing rapid urbanisation, leading to a higher demand for infrastructure. Therefore, as urbanisation is taking place, the demand for infrastructure in the form of housing, efficient transportation networks, parking facilities, traffic management, health facilities, water supply and drainage, sanitation facilities, waste management, sustained energy supplies and recreational amenities, such as parks, facilities for leisure and physical activities will also increase. Recognising this growing need, the Ministry of Megapolis and Western Development has already commenced various projects, such as the Western Region Megapolis Master Plan Project, establishment of strategic cities centralised in Kandy, Jaffna and Trincomalee, flood mitigation projects within metropolitan areas, flood control at Kelani River basin etc. The Megapolis Project consists of seven city development projects that include the Colombo Financial City (Port City) Development Project, Administrative Capital City in Sri Jayawardenapura Kotte, Science and Technology City in Homagama-Malabe, Industrial City in Horana and Mirigama, Aero City in Katunayake, Plantation City in Avissawella and Forest City in Baduraliya.

Poverty Alleviation and Safety Nets

Poverty Headcount Ratio (PHCR) in Sri Lanka has significantly declined in the recent past, though the spatial distribution of poverty, moderate poverty and income disparity remain as obstacles for inclusive economic development. According to the Household Income and Expenditure Survey (HIES) conducted by the Department of Census and Statistics (DCS), the PHCR based on the official poverty line (OPL) registered 6.7 per cent in 2012/13 in comparison to 8.9 per cent recorded in 2009/10 and 15.2 per cent in 2006/07. At a provincial level,

the Western Province recorded the lowest level of PHCR of 2.0 per cent, while the Uva Province showed the highest level of poverty with a PHCR of 15.4 per cent. At a district level, the lowest PHCR of 1.4 per cent was recorded in the Colombo district, while the Mullaitivu district recorded the highest PHCR of 28.8 per cent. Meanwhile, the PHCR in the estate and rural sector remained at 10.9 per cent and 7.6 per cent, respectively, while the PHCR at the urban sector registered a lower level of 2.1 per cent. The spatial distribution of poverty indicates the existence of severe poverty pockets in several districts. In addition to Mullaitivu, the poverty levels in Moneragala, Batticaloa, Mannar, Badulla and Kilinochchi were fairly high, with PHCR ratios of 20.8 per cent, 19.4 per cent, 20.1 per cent, 12.3 per cent and 12.7 per cent, respectively. However, the spatial distribution of poverty indicated by the high PHCR does not necessarily reflect the depth of poverty in different areas. Although the PHCR in Mullaitivu and Mannar are 28.8 per cent and 20.1 per cent, respectively, these two districts account for only 3.4 per cent of the poor population in the country. However, Kurunegala, which records a PHCR of 6.5 per cent, accounts for 7.6 per cent of the poor population in the country. Therefore, these regional disparities in poverty levels pose a considerable challenge for the overall poverty reduction programme. Further, there is an urgent need to update the OPL to obtain correct measurements of poverty in the country. The current OPL of Rs. 3,624 per person per month for 2012/13 is based on the consumption patterns derived from

Table 3.12
Poverty Headcount 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

HIES-2002, which has been conducted excluding eight districts in the Northern and Eastern provinces that account for approximately 13 per cent of the national population. Hence, HIES-2002 will neither represent the current consumption patterns nor the national level consumption patterns. Further, the OPLs for each HIES years are estimated by inflating the OPL of 2002 with the Colombo Consumer Price Index (CCPI). However, the CCPI is based on retail prices and the consumption patterns of households in the Colombo district. Therefore, the CCPI may not reflect the consumption patterns and retail prices prevailing in other areas. The international best practice in estimating poverty is to revise the OPLs on a regular basis to reflect the dynamic consumption patterns. Considering the deficiencies in the current OPL of Sri Lanka and the necessity of adhering to international best practices, it is important to revise the current OPL in order to accurately assess the poverty levels across the country.

According to the World Bank poverty line (in 2011 Purchasing Power Parity terms), the extreme poverty in Sri Lanka, i.e., the percentage of population living below US dollars 1.90 per day, stood at 1.9 per cent in 2012/13. Nevertheless, World Bank statistics suggest that the moderate poverty, i.e., percentage of population living below US dollars 3.10 per day in 2011 Purchasing Power Parity terms, is considerably high in Sri Lanka, which stood at 14.6 per cent in 2012. Although, extreme poverty is low in Sri Lanka, approximately one eighth of the population falls in to the 'nearly poor' category, which is defined as the population living above the World Bank poverty line but below US dollars 3.10 per day (in 2011 Purchasing Power Parity terms). The economic vulnerability of this 'near poor' people is high, with a higher probability of this group falling into extreme poverty during vulnerable

situations such as natural disasters. Meanwhile, the Gini coefficient, which measures the depth of the inequality, in terms of household income was 0.48 in 2012/13 in comparison to 0.49 in 2009/10. The Gini coefficient in terms of household expenditure was recorded at 0.40 in 2012/13 in comparison to 0.37 in 2009/10. Therefore, income inequality remains as an issue to be addressed, while inequality in consumption has increased in the recent period. The increased consumption inequality was associated with unequal access to health and education services. Recognising the importance of eradicating poverty for inclusive economic growth in Sri Lanka, the government has declared 2017 as the 'Year of Poverty Alleviation'. This programme is expected to give due recognition to implement a comprehensive programme of poverty alleviation for Sri Lanka while giving priority to attain the Sustainable Development Goals (SDGs) by 2030 through a collaborative approach.

Social protection programmes have increasingly focused on developing the household livelihoods and enhancing an inclusive growth. During 2016, Rs. 40.7 billion was granted under the Samurdhi/Divineguma subsidy programme, which is the foremost social safety net programme in the country, benefiting 1.41 million families. Further, around Rs. 987.6 million was disbursed among 323,396 beneficiaries under the Samurdhi/Divineguma Social Security Fund during the period under review. Additionally, in order to uplift the nutritional status among mothers and children, the Ministry of Women and Child Affairs disbursed around Rs. 5.7 billion and Rs. 106.4 million under the programmes of food packages for pregnant mothers and fresh milk for children between 2-5 years, respectively, in 2016. In addition, the government continued to implement several other social assistance programmes, including the school food programme, Thripasha

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)
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
2016	1,407,235	40,740	n.a.	5,746	111

(a) As at year end

(b) Including the kerosene subsidy

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

programme, disability and relief assistance, elderly payment and disaster relief assistance, during 2016.

While social protection programmes are essential to uplift the consumption levels of the poor in the short-term, the government needs to focus more on enhancing income generating capacities of low-income households so that they would not continue to remain in poverty and be a burden on the government. To this end, institutional support for low-income households, can be provided through numerous ways. Encouraging farming community to diversify their income sources, increasing the contribution of women towards the household income through increased female labour participation and female employment, improving financial inclusion by supporting better financial management and encouraging household savings and skilled migration through vocational training programmes for low income household people are some of the possible policy measures for reducing poverty in the long-run.

Environment

Balancing economic growth and negative externalities created by economic activities has been a challenging task in economic development process. Generally, high economic growth requires increased consumption of natural resources along with the large scale production

of waste material. Therefore, environment conservation needs to be an in-built process within economic development process with the adoption of a sustainable level of natural resource consumption and proper waste disposal to prevent environmental degradation that may cause hazards to all living beings.

The government of Sri Lanka continued to strengthen public awareness and institutional support in relation to environment protection during 2016. Following the United Nations Framework Convention on Climate Change in 2015, the Ministry of Mahaweli Development and Environment commenced a programme called 'Sri Lanka NEXT-A Blue Green Era' in 2016, to create awareness among people on climate change and future development strategies. The Cabinet of Ministers has approved to develop 10,000 'Blue Green Beautiful Lanka Villages' within the 2016 to 2020 period, in collaboration with community organisations such as the SANASA movement of Sri Lanka, the Sarvodaya movement and the organisational network of the Divineguma Department under this programme. In addition, the sixth National Symposium on Air Quality Management in Sri Lanka was held under the theme of 'Air That We Breathe-2016' in May 2016. The event was a platform to discuss the views of technocrats, scientists and other professionals from a number of state and private institutions in the country, involved in air quality research,

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development and implementation activities for a green economy. In addition, several training programmes and workshops were carried out to create awareness among farmers and students on the bio-diversity of flora and fauna in agricultural fields and about toxin free food production. In 2016, Sri Lanka ratified the Paris Agreement and joined with the international community to setup a plan to reduce global warming. The Paris Agreement entered into force on 04 November 2016. The central aim of the Paris Agreement is to strengthen the global response to the threat of climate change by keeping the global temperature within this century at a level below 2 degrees Celsius above the pre-industrial levels. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change.

The Central Environmental Authority (CEA) carried out a wide array of programmes to protect and manage the environment enabling sustainable economic growth. Solid waste management has been a priority for the CEA during the period under review. Accordingly, funds were provided by the CEA's Pilisaru project to various local authorities to establish new compost sites, bio gas plants, sanitary landfills, plastic recycling centres, plastic/polythene waste storage centres during 2016. The CEA also implemented a project to construct integrated solid waste disposal facilities in the form of scientifically proven sanitary landfills, as the final disposal facilities for municipal

solid waste that is currently being disposed in a haphazard manner. Under this project, sanitary landfills are being constructed in Keerikkulama in Anuradhapura, Monroviawatta in Hikkaduwa, Meegaswewa in Medirigiriya and Keerimalai in Jaffna that would serve as cluster based common final disposal facilities to dispose residual waste generated in respective local authority areas. During 2016, the detailed designs of Keerikkulama, Meegaswewa and Monroviawatta sites and the conceptual design of the Keerimalai sites were completed. During 2016, various educational programmes were conducted through the Green Park for staff of local government officers, students and government and non-government officers. In addition, an electronic waste management project and an integrated polythene and plastic management project were initiated by the CEA during 2016. Moreover, several water quality monitoring programmes were carried out in 2016, particularly in the Kelani and Bentota rivers. In addition, the CEA declared areas surrounding waterfalls as Environment Protection Areas (EPAs). Meanwhile, the granting of approval for mini-hydro projects in waterfalls has been limited, in consideration of the direct and indirect environmental impact of such projects on the waterfalls. Further, the CEA monitored nine EPAs that have been previously identified and proposed six more EPAs during the year under consideration.