

## Chapter 5

# ECONOMIC AND SOCIAL OVERHEADS

### 5.1 Overview

Significant shortcomings in certain key infrastructure services in 2001 imposed a heavy burden on the economy. Power cuts were in force for about half of the year. The terrorist attack on the Katunayake Bandaranayake International Airport (KIA) and the subsequent increase in the war risk premium on aircraft passing through KIA brought the airport operations almost to a standstill on some days. An increase in insurance costs due to a war risk premium, as well as labour disputes, had a serious impact on port operations. The weak railway infrastructure led to a large number of derailments and several fatal accidents during the year. Moreover, inadequate supply of infrastructure services, operational inefficiencies and issues relating to areas such as accountability, pricing and overstaffing continued to exist.

In view of the fact that an efficient and adequately accessible infrastructure system is a prerequisite for rapid economic growth and enhanced social welfare, it is essential to pay special attention to developing infrastructure services. The pervasive involvement of the government in financing, managing, regulating and actual delivery of infrastructure services has created various inefficiencies in the system.

Weak financial and operational responsibility of managers, delays in decision making, politicisation, non-optimal pricing, over staffing and inappropriate technological choices are some of these inefficiencies. Some institutional reforms could generate added benefits from the substantial investments that have already been committed to infrastructure services. In this respect, the creation of independent enterprises, service contracts, management contracts, BOO/BOT<sup>1</sup> arrangements, strategic partnerships, privatisation and corporatisation etc. have been suggested as possible institutional arrangements. Any institutional arrangement should however, of necessity have the characteristics of competitiveness, broadened participation, effective regulation, risk sharing and sustainable financial and physical planning. The rapid growth in the telecommunications sector of the country in recent years is mainly attributable to the institutional changes introduced in the 1980s and 1990s and demonstrates the benefits that

could accrue by such changes. The introduction of a flexible pricing policy for petroleum products and proposed reforms to the power, petroleum and postal sectors are welcome moves in this direction.

Public investment in infrastructure development fell short of expectations in 2001, mainly due to budgetary constraints. Public investment in economic infrastructure fell to 3.9 per cent of GDP in 2001 in comparison to the original estimate of 6.0 per cent and 2000 figure of 4.4 per cent. Public investments in social infrastructure also fell to 1.0 per cent from 1.3 per cent in 2000. This level of investment is inadequate when considering the deficient nature of infrastructure facilities in the country. Public investments need to be raised, particularly in areas where the private sector is reluctant to invest, while, at the same time, taking necessary measures to encourage the private sector also to do so. It is, however, now recognised that through appropriate means, the private sector too could provide infrastructure facilities, which were earlier in the state's domain. Along with the peace initiative, public investment would need to increase further to rehabilitate the infrastructure facilities in the North and East. Public investment in 2001 was mainly in the areas of water supply and sanitation, roads, power, ports and transport sectors, while private investment was mainly in the areas of telecommunications, housing, power and health. Of the total foreign direct investment in 2001, about 50 per cent was on infrastructure projects.

**TABLE 5.1**  
**Government Investment in Infrastructure**

| Year    | Economic Services |          | Social Services |          | Total  |          |
|---------|-------------------|----------|-----------------|----------|--------|----------|
|         | Rs.Mn.            | % of GDP | Rs.Mn.          | % of GDP | Rs.Mn. | % of GDP |
| 1992    | 20,444            | 4.8      | 6,137           | 1.4      | 26,581 | 6.2      |
| 1993    | 29,600            | 5.9      | 6,075           | 1.2      | 35,675 | 7.1      |
| 1994    | 29,304            | 5.1      | 7,677           | 1.3      | 36,981 | 6.4      |
| 1995    | 36,106            | 5.4      | 9,854           | 1.5      | 45,960 | 6.9      |
| 1996    | 31,409            | 4.1      | 10,322          | 1.3      | 41,731 | 5.4      |
| 1997    | 32,481            | 3.6      | 11,552          | 1.3      | 44,033 | 4.9      |
| 1998    | 44,677            | 4.4      | 15,528          | 1.5      | 60,205 | 5.9      |
| 1999    | 44,234            | 4.1      | 17,493          | 1.6      | 61,727 | 5.7      |
| 2000    | 54,650            | 4.4      | 16,470          | 1.3      | 71,121 | 5.7      |
| 2001(a) | 54,563            | 3.9      | 14,559          | 1.0      | 69,122 | 4.9      |

(a) Provisional

Source: Central Bank of Sri Lanka

<sup>1</sup> A system by which private sector could engage in the provision of large infrastructure services by obtaining a long-term licence from the state under Build, Own and Operate (BOO) or Build, Own, and Transfer (BOT) conditions.

## 5.2 Health

Sri Lanka has a widespread network of health care institutions, largely run by the state and supported by the private sector. The continuous provision of public health care services free of charge and the implementation of generous social welfare programmes by successive governments for decades have resulted in a significant improvement in the health status of people of the country. In terms of health indicators, Sri Lanka's achievements have been well above those with comparable per capita incomes. However, Sri Lanka's health sector at present is faced with new challenges in the wake of a major demographic transition, rapidly changing life styles and deteriorating environmental conditions. As identified by the health authorities, the major health problems are the following: inequities in the provision of health services, health needs of the elderly and the disabled, increased incidence of non-communicable diseases, accidents, suicides, substance abuse and malnutrition. The resurgence of previously eradicated diseases such as malaria and tuberculosis and the frequent outbreak of new diseases such as Japanese Encephalitis (JE) and Dengue Haemorrhagic Fever (DHF) have also become areas of concern. Further, Sri Lanka is a high-risk country for HIV infection, although at present, its prevalence is low. The major health facilities in the country are congested and the occupancy rates in most public hospitals are over 100 per cent. The Presidential Task Force (PTF) in 1997 recommended major reforms to meet these challenges. However, under-funding, lack of a clear health sector policy in respect of both public and private sector services, organisational problems, a shortage of trained health personnel and inadequate commitment to keep the reforms implemented continue to remain as major issues in the health sector.

According to the Sri Lanka National Health Accounts compiled by the Ministry of Health in collaboration with the Institute of Policy Studies, the share of the public sector expenditure in the total health expenditure of the country is about 50 per cent. Given the current budgetary constraints, its share needs to be further reduced by permitting the private sector to take over a larger portion of the health care services in the country. However, unlike in developed countries where a large part of private health expenditure is borne by health insurers, in Sri Lanka, private health expenditure is almost entirely borne by users. This indicates that there is a vast potential for the entry of health insurance to establish a viable and sustainable health care service in the country.

In 2001, the total government expenditure on health services amounted to Rs. 18,772 million or 1.3 per cent of GDP. The comparable figures for 2000 were Rs 20,696 million and 1.6 per cent respectively. Public expenditure on the health care services, as a per cent of GDP has remained

around 1.5 per cent in recent years. According to the World Development Report 1999/2000, the average public sector expenditure on health as a per cent of GDP was 2.4 per cent in middle-income countries. In the case of Sri Lanka, as pointed out earlier, budgetary constraints have inhibited the expansion of the public sector health care services. Hence, the private sector should be promoted to fill the gap. However, a salutary development in the health care system has been the 'crowding in' of the private sector investments largely due to the under funding and the low quality of public sector health care services. The private sector share in curative health care has gradually grown exceeding 50 per cent over the years. By further strengthening the private sector with an appropriate regulatory framework, the government would be able to release more funds for preventive health care.

Recommendations made by the PTF in key areas have been identified for immediate implementation. These include the development of at least one hospital in each district, strengthening of health services for the disabled, elderly and mental patients, health promotional programmes, improvement of supportive services and reforms in the organisational structure. Under the project to improve hospitals at the district level, 27 hospitals have been selected and development of 2 hospitals in Hambantota and Polonnaruwa has already been completed. In order to provide quality health care services in the estate sector, 50 estate hospitals have been identified to be taken over by the government. Twenty one have been taken over and their services have been improved. Action is being taken to strengthen and decentralise mental health facilities and promote school health. Financial constraints, lack of trained health personnel etc., affected the timely implementation of the proposed reforms.

**TABLE 5.2**  
**Public Health Services**

| Item   | 1999   | 2000   | 2001(a) |
|--|--------|--------|---------|
| Hospitals                                    |        |        |         |
| (practicing Western medicine) (No.)          | 558    | 585    | 585     |
| No. of beds                                  | 55,436 | 58,423 | 59,833  |
| Central dispensaries (No.)                   | 383    | 389    | 389     |
| Total no. of doctors                         | 5,957  | 6,873  | 7,235   |
| Total no. of Assistant Medical Practitioners | 1,340  | 1,332  | 1,330   |
| Total no. of Ayurvedic physicians            | 15,785 | 16,161 | n.a.    |
| Total no. of nurses (b)                      | 14,052 | 14,931 | 15,061  |
| Total no. of attendants                      | 7,178  | 7,309  | 7,163   |
| Number of in-patients ('000)                 | 3,826  | 4,015  | n.a.    |
| No. of out - patients ('000)                 | 41,325 | 43,329 | n.a.    |
| Total health expenditure (Rs.Mn)             | 15,671 | 20,696 | 18,772  |
| Current expenditure (Rs.Mn)                  | 11,215 | 15,394 | 14,785  |
| Capital expenditure (Rs.Mn)                  | 4,456  | 5,302  | 3,987   |

(a) Provisional

(b) 1999-2000 figures were revised as per the Annual Health Bulletin 2000

Sources: Ministry of Health, Nutrition and Welfare  
Central Bank of Sri Lanka

The total number of government hospitals remained unchanged at 585 in 2001. In addition, according to the estimates of the Department of Private Hospitals of the Ministry of Health, there are about 160 private hospitals with about 7,000 beds, which will significantly improve with the opening of the Apollo Hospital in 2002. Further, there were 49 Ayurvedic hospitals with 2,567 beds. Accordingly, the number of beds per 1,000 persons has been estimated at 3.7 at end 2001. The total number of qualified Medical Officers (MO) in government hospitals increased to 7,235 as 1,466 post-intern MOs and 42 specialist MOs were posted to hospitals. During the year, 888 interns were appointed. It has been estimated that there are about 800 qualified doctors in private practice. Accordingly, the number of persons per doctor further dropped to 2,323 by end 2001. As 226 new cadre positions were created for dental surgeons, the Health Ministry was able to appoint 120 new dental surgeons in 2001. However, shortage of medical specialists in the health sector, especially in outstations, continued in 2001 as well. By end 2000, there were 697 medical specialists, in the curative health care service and of whom nearly 55 per cent were attached to hospitals in the Western Province. The number of nurses in government hospitals increased slightly to 15,061 at end 2001. It has been estimated that there are about 3,000 qualified nurses in the private sector. Accordingly, the number of nurses per 100,000 population has been estimated to be 97 at end 2001. However, both government and private hospitals continued to experience a severe shortage of qualified nurses. All hospitals suffer from an acute shortage of qualified para-medical staff, such as pharmacists, laboratory technicians, radiographers, physiotherapists and ECG recordists. It has also been reported that there are a large number of untrained medical personnel in the private sector health care institutions. The persistent shortage of key medical personnel emphasises the need for the expansion of training opportunities in the public sector or accredited private institutions to train the health manpower required in the country.

Disease control campaigns during the year were challenged by an increased incidence of DHF in the country. During 2001, a total of 3,771 DHF cases were reported, out of which 337 cases were found positive. There were 47 deaths due to DHF in 2001, compared to 36 in 2000. The main cause for the spread of the disease has been the poor environmental conditions. As in previous years, the health authorities were able to control the spread of the disease by strengthening surveillance activities, health education and awareness programmes and vector control activities, with the support of local authorities and community organisations. Meanwhile, 47 HIV infected patients in Sri Lanka were reported in 2001, of whom, 13 were diagnosed as AIDS patients. There were 10 deaths from AIDS during the year. It has been estimated that there

**TABLE 5.3**  
**Performance of Private Hospitals<sup>(a)</sup>**

|                        | 2000      | 2001(b)   | Change (%) |
|------------------------|-----------|-----------|------------|
| 1 Hospital beds        | 1,565     | 1,613     | 3          |
| 2 No. of patients      |           |           |            |
| In-patients            | 118,515   | 139,037   | 17         |
| Out-patients(OPD)      | 1,225,141 | 1,365,934 | 11         |
| 3 Doctors              | 1,140     | 1,216     | 7          |
| Permanent              | 182       | 193       | 6          |
| Visiting               | 847       | 906       | 7          |
| Part-time              | 111       | 117       | 5          |
| 4 Nursing staff        | 2,640     | 2,718     | 3          |
| Nurses                 | 1,891     | 1,970     | 4          |
| Qualified              | 1,356     | 1,407     | 4          |
| Trainee                | 535       | 563       | 5          |
| Attendants             | 749       | 748       | 0          |
| 5 Other staff          | 2,495     | 2,624     | 5          |
| Technical staff        | 495       | 526       | 6          |
| Administrative staff   | 450       | 475       | 6          |
| Other (labourers etc.) | 1,550     | 1,623     | 5          |

Source: Central Bank of Sri Lanka

(a) Based on information reported by 34 private hospitals located in the Western Province (22), Southern Province (6), Central Province (2), North Western Province (2), Eastern Province (1) and Uva Province (1).

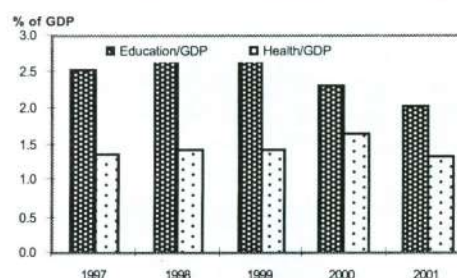
(b) Provisional

are about 8,500 HIV infected persons although the reported number is only 405.

Continuing the recent trend, the incidence of tuberculosis (TB) further increased in 2001. The number of TB cases reported rose by 4 per cent to 8,828, of which the number of positive cases increased by 4 per cent to 4,487. There was a significant progress in the control of malaria in 2001. The number of malaria positive cases reported dropped by 68 per cent, while the number of deaths dropped to 3 (excluding in Killinochchi and Mullaitivu) from 76 in the previous year.

Several health infrastructure projects were in progress during 2001. With financial assistance from Korea, two 8-storey buildings were constructed for the base hospitals at Gampaha and Negombo at a cost of Rs.981 million. The construction work on the National Nephrology Dialysis and

**Chart 5.1**  
**Expenditure on Health and Education**





Transplantation Centre at Maligawatte at a cost of Rs.290 million was in progress in 2001. When completed, this centre will have 111 beds with facilities for diagnosis of kidney diseases and kidney transplant surgery. This would serve a large number of kidney patients who have so far sought treatment in private hospitals or in foreign countries at very high cost. Action has already been taken to establish a Neuro Trauma Unit at the National Hospital, Colombo at a cost of US dollars 12 million.

### 5.3 Education

The development of human capital is recognised as one of the key factors needed for sustained high economic growth and it is most significant in open economies like Sri Lanka. High quality human capital is crucial for productivity growth, promoting competitiveness and improving creativity. Sri Lanka has a higher literacy and school enrolment than most developing countries, and is on par with developed countries. The strong commitment of successive governments to expanding and continuing the free education system has provided universal access to primary education. However, the quality of human capital produced by the public education system has not in general, kept pace with labour market requirements. Although this is a feature that has developed over time, the acuteness of the problem has been felt more strongly in recent years as the role of the private sector in economic activities has grown. Emphasising general and university education and overlooking the importance of technical and vocational training are partly responsible for the shortage of skilled manpower and for the high unemployment among the educated youth.

The educational reforms introduced in 1998 are primarily aimed at improving the quality and focus of education so that the mismatch between educational attainment and labour market requirements would be minimised. Educational reforms are being implemented at primary, secondary and tertiary levels.

#### General Education

General education reforms are being implemented since 1999 on national basis. It may take several more years to make a practical assessment of the success of these reforms. There has been no major criticism of the overall direction of the reforms, though certain practical difficulties have been cited. Shortages of trained teachers, lack of activity rooms, particularly in rural schools, weaknesses in monitoring School Based Assessments and inadequate attention to monitoring progress at school level were some of weaknesses identified in various surveys. However, more comprehensive and scientific studies should be carried out to ascertain the effectiveness of the reforms and identify slippages so that corrective measures can be taken without delay.

According to the School Census of 2001, there were 9,887 functioning government schools and 381 non-

functioning schools at end 2001. The non-functioning schools are those that had been closed due to an insufficient number of pupils. The total number of students in government schools, excluding new Advanced Level students was 4,184,957 at end 2001. This is a marginal decrease over 2000, mainly due to a drop in new admissions as the school going age population has declined. The school density stood at one school per 6 sq. kms at end 2001, indicating easy accessibility. The average student population per school was 423, when compared to 420 in 2000. The pupil/teacher ratio remained unchanged at 22, which is a very good ratio. In addition to government schools, there were 583 Pirivenas with 52,906 students and 78 private schools with 96,155 students. Although there were a large number of international schools operating in the country there were no any reliable sources of information on those schools. Therefore, basic information such as number of international schools, number of students, teachers and other information such as syllabuses, standards were not known. This indicates the urgent need of appointing a regulatory authority for international schools.

Several steps were taken to improve the qualitative aspects of general education. An Educational Reforms Implementation Monitoring Unit (ERIMU) was established with a view to effective monitoring of the implementation of educational reforms. The Secondary Education Modernisation Programme financed by ADB and the Nordic Development Fund (NDF) commenced in 2001, with a view to improving the quality of secondary education, particularly in underprivileged areas and raising efficiency in the management of key educational institutions. An Early Childhood Care and Development (ECCD) programme has been introduced to undertake activities relating to the formulation of national policy on child care, parental education, training, curricular guidance, improve teaching methods and provide educational opportunities for school dropouts between 5 - 14 years of age.

It appears from the pupil/teacher ratio of 22 that there is an excess of teachers at the national level. However, according to the Ministry of Education, when considered medium wise, there is an acute shortage of Tamil medium teachers. When considered school-wise, most rural schools do not have a sufficient number of teachers to teach even core subjects. There is a severe shortage of teachers in the North Central, North Eastern and Uva provinces, and a substantial excess of teachers in the Western province. The expected gains from educational reforms would not be realised unless a rational teacher deployment policy is implemented. In this respect, the proposed National Teacher Transfer Policy must be adopted without further delay for the benefit of the entire education system.

Along with the educational reforms, several programmes have also been undertaken to improve school infrastructure. Under the Divisional School Development

programme, 365 schools have been identified for development, of which 134 have already been developed. In addition, under an accelerated programme, 200 schools in the Northern and Eastern provinces and in the Puttalam District have been selected for development. Further, 115 estate schools and 54 Central Colleges have been selected for development under specific programmes designed for this purpose. Under the Model Primary School Programme, 25 primary schools have been identified to be developed as model schools.

Specific attention was paid to improving the Information Technology (IT) education in schools in 2001, since this area would form a nucleus of future manpower of the emerging

**TABLE 5.4**  
**General and University Education**

| Item  | 1999      | 2000      | 2001(a)   |
|---|-----------|-----------|-----------|
| <b>General education</b>                          |           |           |           |
| 1. Total schools                                  | 10,695    | 10,615    | 10,548    |
| Government schools(b)                             | 10,058    | 9,976     | 9,887     |
| o/w National schools                              | 310       | 317       | 322       |
| Other schools                                     | 637       | 639       | 661       |
| Private   | 77        | 78        | 78        |
| Pirivenas   | 560       | 561       | 583       |
| 2. Pupils   | 4,277,104 | 4,340,412 | 4,334,018 |
| Government schools                                | 4,134,026 | 4,193,908 | 4,184,957 |
| Other schools                                     | 143,078   | 146,504   | 149,061   |
| Private   | 93,445    | 95,383    | 96,155    |
| Pirivenas   | 49,633    | 51,121    | 52,906    |
| 3. New admissions                                 | 343,230   | 332,892   | 330,365   |
| 4. Teachers                                       | 196,726   | 194,773   | 202,991   |
| Government teachers                               | 188,340   | 186,097   | 194,104   |
| Others  | 8,386     | 8,676     | 8,887     |
| 5. Pupil/Teacher ratio<br>(Government schools)    | 22        | 22        | 22        |
| 6. Total expenditure on<br>education (Rs. Mn) (c) | 29,294    | 30,929    | 28,286    |
| Current   | 21,842    | 23,794    | 23,448    |
| Capital   | 7,652     | 7,135     | 4,838     |
| <b>University education</b>                       |           |           |           |
| 1. Universities                                   | 13        | 13        | 13        |
| 2. Students (d)                                   | 41,584    | 48,296    | 48,061    |
| 3. Lecturers (e)                                  | 3,228     | 3,241     | 3,268     |
| 4. Number graduating                              | 8,787     | 9,374     | n.a.      |
| Arts and Oriental studies                         | 3,613     | 3,656     | n.a.      |
| Commerce & Management studies                     | 1,271     | 2,448     | n.a.      |
| Law   | 325       | 173       | n.a.      |
| Science   | 1,418     | 1,264     | n.a.      |
| Engineering                                       | 631       | 548       | n.a.      |
| Medicine  | 1,049     | 904       | n.a.      |
| Dental surgery                                    | 70        | 77        | n.a.      |
| Agriculture                                       | 298       | 249       | n.a.      |
| Veterinary science(f)                             | 35        | 0         | n.a.      |
| Architecture                                      | 46        | 37        | n.a.      |
| Quantity surveying                                | 31        | 18        | n.a.      |
| 5. New admissions for basic degrees               | 11,896    | 11,805    | 11,962    |

Sources: Ministry of Human Resource Development,  
Education and Cultural Affairs  
University Grants Commission  
Central Bank of Sri Lanka

(a) Provisional

(b) Excluding non-functioning schools

(c) Includes government expenditure on higher education

(d) Excluding the Open University of Sri Lanka

(e) At the beginning of the year

(f) There was no output in 2000 as convocation was not held in that year.

knowledge economy. Accordingly, 1,000 computer learning centres and 2,400 multi-media rooms were set-up in schools during the year. It is also expected to provide computers and accessories to 600 more schools under the Second General Education Project financed by International Development Association (IDA). The National Policy on Information Technology in School Education (NPITSE) was introduced in 2001. The main objectives of the policy are development of IT education and introduction of IT literacy among school leavers and among teachers.

Total government expenditure on education decreased by 8.5 per cent to Rs. 28,286 million in 2001. The total expenditure in relation to GDP was 2.0 per cent, in comparison to 2.5 per cent in 2000. In real terms government expenditure on education has declined over time. This has paved the way for crowding in of private investment into the education sector, which is a salutary development, given the present budgetary constraints for public education.

### Higher Education

University education reforms were in progress in 2001. Major reforms proposed for university education include curriculum reforms and development of course units, introduction of modern teaching methods, staff development, career guidance, counselling and training of teaching and research staff. The main objective of the reforms is to develop a dynamic and a vibrant university system, which produces employable graduates in the global market. However, it has been observed that, in comparison to implementation of general education reforms, progress in the university education reforms has been rather slow. University education reforms are as important as other education reforms to train undergraduates who are employable in the present day labour market and to supply competent technical and professional manpower required for faster economic growth.

Graduate unemployment has been a major issue, particularly since the 1970s. It has been the practice so far to offer public sector employment to graduates who find it difficult to secure or are reluctant to accept employment in the private sector. As the public sector is becoming smaller in comparison to the private sector in the emerging economic systems, the government, as an employer of the last resort, will not be able to absorb all the unemployed graduates in the future.

The number of national universities, including the Open University of Sri Lanka, stood at 13 at end 2001. New admissions to universities, except the Open University, were 11,962 for the 2001/02 academic year. Out of the total number of students who fulfilled the minimum eligibility requirement for university entrance, 16 per cent was able to gain admission to a university. The Sri Lanka Institute of Information Technology (SLIIT), which was granted degree-awarding status in 2000, enrolled 759 students to follow various courses offered by the institution.

Meanwhile, the Naval Maritime Academy (NMA), which has also been granted degree-awarding status under the supervision of the University of Kelaniya, continued its academic programmes in 2001. The student enrolment in Open University courses stood at 19,385, of which new admissions were 8,749. Meanwhile, initial steps have been taken to establish a university in the Uva Province, with special courses on the plantation industry.

Particular attention was paid during 2001 to expand training opportunities in IT, as there is a significant demand for IT specialists in the markets both local and foreign. A new IT faculty was established at the University of Moratuwa. Similarly, a multi-media centre was established at the Institute of Computer Technology (ICT) of the University of Colombo. In view of the growing importance of information technology, it is essential that all university students have reasonable training in IT.

There are a large number of private sector educational institutions operating in the country. Some of them are affiliated to foreign institutions and train students to match the demand in the labour market. There are a few local degree-awarding institutions recognised by the UGC. It is, therefore, important to follow a consistent and uniform policy in recognising private sector degree awarding institutions. At the same time, recognition of such institutions will enable the UGC or any other authority to regulate and impose standards, so that the quality of the courses could be maintained. Opportunities for higher education in both public and private sectors need to be expanded considering the large number of student dropouts after O/L and A/L examinations and the limited number of places available in the present university system.

A salutary development in the global university education system has been the emergence of a borderless university system through distance education or Internet learning as the method of delivery. All the best universities in the world have set up this mode of education since it is less costly, more flexible and has a higher outreach. Countries with high communication and IT levels such as Singapore are presently reaping a benefit of this delivery system in a big way. With the current investments in communication technology in Sri Lanka, university education would be made accessible to a large number of students who have been unable to secure admission to a university under a present system.

### **Technical Education and Vocational Training (TEVT)**

Along with reforms in general and university education, reforms have also been introduced to the TEVT sector. A number of public sector institutions such as the Department of Technical Education and Training (DTET), Sri Lanka Institute of Advanced Technical Education (SLIATE),

Vocational Training Authority of Sri Lanka (VTA) and the National Institute of Technical Education (NITE) work in the TEVT sector. A large number of private sector institutions also provide vocational training. The target group is generally diverse and consists of the unemployed youth, rural women, school leavers and other disadvantaged and low-income groups.

The Tertiary and Vocational Education Commission (TVEC) act as the policy setting and regulating body in the TEVT sector. It introduced several training plans and training standards during the year. The TVEC also provided financial assistance to private sector training institutions to organise their training programmes better.

The DTET, a major provider of technical education and vocational training in the public sector, conducted its training through 36 Technical Colleges located in different districts. The total number of students enrolled for various courses was 16,128 at end 2001, a drop of about 7 per cent over the previous year. Meanwhile, the Sri Lanka Institute of Advanced Technical Education (SLIATE) conducted Higher National and National Diploma courses in Engineering, Information Technology, Agriculture, Accountancy, Commerce and Business Studies in 11 colleges and 5,300 students were enrolled by end 2001. The Vocational Training Authority of Sri Lanka (VTA) has most of its training facilities in rural areas. There were 219 rural vocational training centres, 14 District Vocational Training Centres and 12 National and Special Vocational Training Centres in the country. Total enrolment in VTA increased marginally to 19,106 at end 2001. The National Apprentice and Industrial Training Authority (NAITA) conducted 180 courses and the total enrolment was 17,479 in 2001. Meanwhile, NITE continued its work in teacher training and curriculum development in the TEVT sector.

## **5.4 Communication Services**

### **Telecommunications**

A universally accessible and efficient telecommunications network is an essential infrastructure for any knowledge-based economy. Voice, data and multimedia communications together play an important role in economic development by providing new opportunities and enhancing the productive capacity of the economy, while integrating the domestic economy with the global economy. Telecommunication infrastructure has important spill over effects to other sectors of the economy, helping in the reducing cost of production, efficient delivery of public services and reduction of poverty. The telecommunications sector of the country has improved noticeably after deregulation and private sector participation since the 1980s. However, in terms of coverage, capacity, competitiveness and affordability, the national telecommunication infrastructure is in need of further development to bring it to international levels. In this respect further liberalisation

of the telecommunications sector, facilitating new gateways to the country and strengthening the regulatory aspects to promote healthy competition in the market and to curb unlawful activities would be helpful.

The national telephone density (telephones per 100 persons) for fixed access telephones is about 4.4, which is far below the world average of 10 and the developed country density of about 50. The expansion of fixed access telephone services decelerated in recent years mainly due to a drop in new investment. Fixed line telephone services are presently provided only by Sri Lanka Telecom Ltd (SLT), while two private sector operators are licensed to provide fixed wireless telephone services. Meanwhile, there are four private sector companies licensed to provide cellular mobile telephone services.

During 2001, the cellular mobile telecommunication services expanded faster compared to fixed access telephone

services. Improvements in cellular technology, aggressive competition, affordable initial cost and quick supply have been the main reasons for the significant growth in this sector. The mobile telephone network expanded by 55 per cent in 2001 in comparison to 68 per cent in 2000. As a result, the ratio of mobile telephones to fixed access telephones increased to 81 in 2001 from 56 in 2000.

The subscriber network of SLT increased by 8 per cent to 708,200 as SLT provided 77,535 new telephone connections during 2001. In comparison, SLT provided 90,647 new connections in 2000. The demand for fixed line telephones provided by SLT grew faster outside the Colombo Metropolitan area. The number of SLT telephone lines in service in the Colombo Metropolitan area rose by 6 per cent in 2001, while elsewhere in the country, it grew by 11 per cent. Of the total number of subscribers to SLT telephones, 45 per cent were in the Colombo Metropolitan

**TABLE 5.5**  
**Growth of Telecommunication and Postal Services**

| Item   | 1999    | 2000    | 2001(a) | Percentage Change |         |
|--|---------|---------|---------|-------------------|---------|
|  |         |         |         | 2000              | 2001(a) |
| <b>1 Telecommunication services</b>            |         |         |         |                   |         |
| <b>1.1 Sri Lanka Telecom Ltd. (SLTL)</b>       |         |         |         |                   |         |
| Telephone lines in service (No.)               | 580,199 | 653,144 | 708,200 | 13                | 8       |
| New telephone connections given(No.)           | 133,709 | 90,647  | 77,535  | -32               | -14     |
| Applicants on waiting list (No.)               | 236,225 | 248,486 | 257,707 | 5                 | 4       |
| Expressed demand for telephones (No.)          | 616,424 | 901,630 | 965,907 | 10                | 7       |
| Telephone density (Telephones per 100 persons) | 3.2     | 3.6     | 3.8     | 11                | 7       |
| <b>1.2 Other private sector</b>                |         |         |         |                   |         |
| <b>Wireless local loop telephones</b>          |         |         |         |                   |         |
| Operators (No.)                                | 2       | 2       | 2       | 0                 | 0       |
| Subscribers (No.)                              | 88,914  | 114,267 | 121,082 | 29                | 6       |
| <b>Cellular phones</b>                         |         |         |         |                   |         |
| Operators (No.)                                | 4       | 4       | 4       | 0                 | 0       |
| Subscribers (No.)                              | 256,655 | 430,202 | 667,662 | 68                | 55      |
| <b>Public pay phones</b>                       |         |         |         |                   |         |
| Operators (No.)                                | 6       | 6       | 6       | 0                 | 0       |
| Subscribers (No.)                              | 5,799   | 8,222   | 7,261   | 42                | -11     |
| <b>Radio paging services</b>                   |         |         |         |                   |         |
| Operators (No.)                                | 4       | 4       | 4       | 0                 | 0       |
| Subscribers (No.)                              | 10,300  | 7,009   | 6,535   | -32               | -7      |
| <b>Internet &amp; email</b>                    |         |         |         |                   |         |
| Operators (No.)                                | 20      | 21      | 27      | 5                 | 29      |
| Subscribers (No.)                              | 25,535  | 40,497  | 61,632  | 59                | 52      |
| <b>2 Postal service</b>                        |         |         |         |                   |         |
| Delivery areas (No)                            | 6,729   | 6,729   | 6,729   | 0                 | 0       |
| Post offices (No)                              | 4,437   | 4,488   | 4,558   | 1                 | 2       |
| Public   | 4,040   | 4,049   | 4,042   | 0                 | 0       |
| Main Post offices                              | 586     | 597     | 602     | 2                 | 1       |
| Sub Post offices                               | 3,454   | 3,452   | 3,440   | 0                 | 0       |
| Private  | 397     | 439     | 514     | 11                | 17      |
| Agency Post Offices                            | 297     | 316     | 360     | 6                 | 14      |
| Rural agency                                   | 100     | 113     | 144     | 13                | 27      |
| Estate agency                                  | -       | 10      | 10      | -                 | 0       |
| Area served by a post office (Sq.Km)           | 14.8    | 14.6    | 14.4    | -3                | -1      |
| Population served by a post office             | 4,338   | 4,243   | 4,103   | -2                | -3      |
| Letters per inhabitant                         | 23      | 25      | 26      | 9                 | 4       |

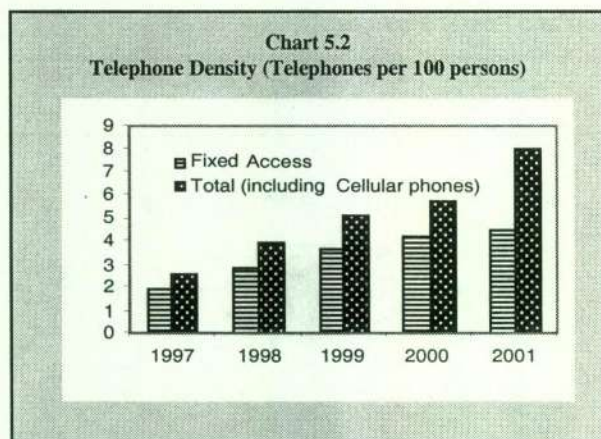
a) Provisional

Sources: Sri Lanka Telecom Ltd.  
Telecommunications Regulatory  
Commission of Sri Lanka  
Department of Posts



region at end 2001, compared to 47 per cent a year before. The network capacity of SLT was augmented by providing 84,836 exchange lines and 266,553 main cable pairs during 2001. The total number of international circuits increased by 32 per cent during the year. SLT paid special attention to network maintenance in order to reduce the fault occurrence rate, while taking steps to rectify reported faults as soon as possible.

The telecommunications market in Sri Lanka has become relatively competitive, especially in the areas of wireless fixed access services, cellular mobile services, data communication services and pay-phone services. The monopoly of SLT in respect of fixed land telephones and international calls is to expire in 2002. Therefore, a competitive market is expected for the provision of fixed line phones and international calls in the near future. The demand for wireless fixed access telephones increased by 6 per cent to 121,082 compared to a 29 per cent increase



in 2000. The subscriber network of cellular mobile phones grew by 55 per cent to 667,662 during the year. Subscribers to Internet and e-mail services grew sharply by 52 per cent in 2001. The number of public pay phone booths installed by 6 operators including SLT decreased by 11 per cent in 2001 as one company ceased its operations during the year. However, the number of subscribers to radio paging services further declined, mainly due to the shifting of subscribers from paging services to cellular mobile services. The total investment by SLT declined by 49 per cent to Rs. 4,461 million in 2001.

SLT implemented several projects to expand network capacity. The Regional Telecommunication Development Project II and the Telecommunication Network Expansion Project I funded by the Japan Bank for International Co-operation (JBIC) were two major projects. With the objective of providing telecommunications services to under privileged areas, several programmes were implemented under the directives of the Telecommunications Regulatory Commission of Sri Lanka. The establishment of 41 telecentres in rural areas with Internet and e-mail facilities,

enforcement of quality of service rules for fixed access telephone operators, expansion of pay-phones in rural areas, and provision of telephone facilities to rural sub-post offices were carried out during 2001.

The total revenue of the SLT increased by 13 per cent to Rs.22,060 million in 2001. The growth in revenue is largely attributable to the increase in the number of connections given during the year, as there were no tariff revisions in 2001. Meanwhile, the operating cost of SLT rose by 5 per cent to Rs.8,877 million in 2001. SLT reported before tax net profit of Rs 3,620 million, which reflects about a four-fold increase over 2000.

### Postal Services

Postal services generally provide basic communication services on a countrywide basis. It is capable of reaching any national or international destination and is often the most universally available, economical mode of communication. In the context of Sri Lanka, these intrinsic characteristics of a postal network could be used to provide a wide range of services to the community at a cost effective rate. Postal services could provide banking, insurance, collection and payments, IT products, e-commerce etc., especially where those services are not available. A reliable and fast postal service is an essential part of a modern infrastructure system. With a view to adopting these policies, a comprehensive postal sector reform programme has been suggested and awaiting parliamentary approval. It is clear that it is necessary to implement these reforms soon to provide an efficient and high quality postal service and also to ensure the future sustainability of the postal service in an environment where IT infrastructure is growing fast.

The post office network further expanded to 4,556 with the opening 80 post offices in 2001. The post office network comprised 4,042 public post offices and 514 agency post offices. The area served by a post office dropped marginally to 14.4 sq. km in 2001, while the population served by a post office also dropped slightly to 4,103. The average number of letters per inhabitant handled by the Department of Posts (DOP) increased by 4 per cent to 26 during 2001. Handling of both inland and foreign mail articles increased by 2 per cent in 2001.

Postal Shops, which were first introduced in 1999 as model post offices, was further expanded during 2001, with the opening of 5 more postal shops. There were, 12 postal shops functioning as at end 2001. There were 31 main post offices with e-mail facilities by end 2001. Telephone facilities were provided to 147 sub post offices during the year. The tele-mail service was introduced, as an alternative to the ordinary telegrams and Post Fax services to avoid delays in the delivery of ordinary telegrams. There were 597 post offices providing this service. The International Express Mail Service (EMS) and Local Speed Post Service also continued to expand.



The DOP continued to report losses. The total revenue of DOP dropped by 6 per cent to Rs. 1,910 million while total operating expenditure grew by 17 per cent to Rs. 2,591 million. Accordingly, its operating loss has been estimated at Rs. 681 million in 2001.

## 5.5 Energy

The commercial energy sector was in severe crisis in 2001. Electricity supply remained significantly lower than the demand throughout the year. The power shortage during the first six months of the year was met by using hired power plants but at very high cost. Power cuts were imposed from July as hydropower generation fell and hired thermal power plants were discontinued due to extremely high cost. While the drop in hydro power generation due to the failure of consecutive monsoons in catchment areas was the immediate reason for the acute power shortage, non-availability of thermal power to its full capacity and unacceptable delay in the construction of planned power projects also contributed to the power shortage. The initial power cut of one and a half hours per day was gradually increased to 8 hours by mid-September. The power cuts had their impact on economic activities hindering investment, industrial production, internal and external trade, as well as on the day-to-day life of the general public. As the hydropower situation improved slightly and the first phase of a new combined cycle power plant was commissioned, power cuts were gradually reduced and lifted completely by mid November 2001. However, power cuts were re-imposed in December when the hydropower situation weakened again and the combined cycle power plant needed certain technical modifications. The power cuts were continued into 2002. Along with the increased cost of power generation, the financial condition of the CEB significantly weakened and bank credit to CEB increased to Rs 10.5 billion by end 2001.

The power crisis in 2001, which occurred following a similar power crisis in 1996, clearly demonstrated the lack of a sound power policy and the consequences of undue delays in implementing planned power projects. A sound and sustainable energy policy must support fast economic growth by providing uninterrupted, reliable and low cost energy. Immediate measures should be taken to avoid supply shortages, while taking action to revive the financial situation of the CEB (see box 7 on Power Crisis).

In the petroleum sector, crude oil prices continued to remain high during most of the year, but began to decline after September. Accordingly, the average import price (c&f) of crude oil dropped by 12 per cent to US dollars 24.47 per barrel in 2001. The demand for major petroleum products showed no growth in 2001, due to a slowdown in economic activities, low demand for thermal power generation and high local prices. In order to reduce the

impact from fluctuations of crude oil prices on the financial situation of CPC and in turn on the fiscal and monetary sectors of the economy as well as for the benefit of the consumers, the government introduced a flexible pricing policy for petroleum products towards the end of 2001.

## Electricity

The total installed capacity of electricity increased by 7 per cent to 1,901 MW by end 2001, with the installation of the first phase of the combined cycle power plant (110 MW) towards end of the year. Private hydropower capacity also increased by 12 MW to 24 MW during the year. Consequently, the reliance of the power system on hydropower dropped to 61 per cent from 65 per cent a year ago. Private sector share in the total installed capacity remained almost unchanged around 10 per cent.

In comparison to the installed capacity, the live capacity that could be effectively used for power generation remained much lower during the year, leading to supply shortages. The water storage in reservoirs remained below 40 per cent of the capacity throughout the year, due to unusually low rainfall in the catchment areas. Of the total thermal power capacity of the CEB, only about 60 per cent was available in certain months due to breakdowns and shutdowns for maintenance. The live capacity was at its minimum level in September. During the first half of 2001, CEB used hired power plants of 98 MW to meet the power shortage. However, hired power plants were completely decommissioned by end June 2001 owing to unbearably high costs and, power supplies had to be reduced.

The total electricity generation declined by 3 per cent to 6,625 GWh in 2001 compared to an 11 per cent increase in 2000. This drop was mainly in CEB thermal power generation, which fell by 14 per cent or 1,896 GWh. The non-availability of some thermal power plants for power generation due to breakdowns and closure for maintenance were the major reasons for this decline. Hydropower generation of CEB further dropped by 3 per cent (or 109 GWh) after a 24 per cent drop in the previous year. The total electricity generation in the private sector, expanded by 29 per cent, increasing its contribution to the total power generation from 14 per cent in 2000 to 19 per cent in 2001. Electricity generation from CEB's self-generation programmes too continued during the year. However, self-generation was not counted for payment of rebates during the months when power cuts were implemented. As a result, reported self-generation dropped almost by one third to 105 GWh in 2001. The hired power plants added 341 GWh during the first six months of 2001. However, despite power shortages, in consideration of the high cost, the CEB decided to discontinue hired power plants from July 2001. In the power generation mix, the share of thermal power remained around 53 per cent.

**TABLE 5.6**  
**Performance of the Power Sector**

| Item                      | Unit | 1999      | 2000      | 2001(a)   | Percentage Change |         |
|---------------------------|------|-----------|-----------|-----------|-------------------|---------|
|                           |      |           |           |           | 2000              | 2001(a) |
| Available capacity        | MW   | 1,691     | 1,837     | 1,999     | 9                 | 9       |
| Installed capacity        | "    | 1,691     | 1,779     | 1,901     | 5                 | 7       |
| CEB - Hydro               | "    | 1,137     | 1,137     | 1,137     | 0                 | 0       |
| Thermal                   | "    | 453       | 453       | 563       | 0                 | 24      |
| Wind                      | "    | 3         | 3         | 3         | 0                 | 0       |
| Private - Hydro           | "    | 6         | 12        | 24        | 100               | 100     |
| Thermal                   | "    | 92        | 174       | 174       | 89                | 0       |
| Hired private power (b)   | "    | -         | 58        | 98        | -                 | 69      |
| Units generated           | GWh  | 6,184     | 6,844     | 6,625     | 11                | -3      |
| CEB - Hydro               | "    | 4,152     | 3,154     | 3,045     | -24               | -3      |
| Thermal                   | "    | 1,396     | 2,205     | 1,896     | 58                | -14     |
| Wind                      | "    | 3         | 3         | 3         | 0                 | 0       |
| Private - Hydro           | "    | 18        | 43        | 65        | 139               | 51      |
| Thermal                   | "    | 507       | 917       | 1,170     | 81                | 28      |
| Hired private power       | "    | -         | 364       | 341       | -                 | -6      |
| Self generation           | "    | 108       | 158       | 105       | 46                | 34      |
| Total sales by CEB        | "    | 4,809     | 5,259     | 5,238     | 9                 | 0       |
| Domestic and religious    | "    | 1,555     | 1,732     | 1,798     | 11                | 4       |
| Industrial (c)            | "    | 1,613     | 1,755     | 1,719     | 9                 | -2      |
| Commercial                | "    | 829       | 895       | 859       | 8                 | -4      |
| Bulk sales to LECO        | "    | 762       | 825       | 802       | 8                 | -3      |
| Street lighting           | "    | 50        | 52        | 60        | 4                 | 15      |
| Composition of LECO sales | "    | 707       | 755       | 744       | 7                 | -1      |
| Domestic and religious    | "    | 340       | 366       | 366       | 8                 | 0       |
| Industrial (c)            | "    | 184       | 194       | 189       | 5                 | -3      |
| Commercial                | "    | 130       | 143       | 142       | 10                | -1      |
| Street lighting           | "    | 15        | 16        | 17        | 7                 | 6       |
| Other                     | "    | 38        | 36        | 30        | -5                | -17     |
| System loss               | "    | "         | "         | "         | "                 | "       |
| CEB                       | %    | 20.9      | 21.3      | 19.7      | 1.9               | -7.5    |
| LECO                      | "    | 7.2       | 8.5       | 7.2       | 18.1              | 15.3    |
| Overall                   | "    | 21.8      | 22.4      | 20.6      | 2.8               | -8.0    |
| Number of Consumers(d)    | "    | 2,570,177 | 2,817,770 | 3,028,162 | 10                | 7       |
| Domestic and religious    | No.  | 2,268,805 | 2,493,183 | 2,680,898 | 10                | 8       |
| Industrial                | "    | 29,303    | 31,231    | 32,829    | 7                 | 5       |
| Commercial                | "    | 272,069   | 293,356   | 314,335   | 8                 | 7       |

(a) Provisional

(b) All hired power plants were decommissioned from July 2001

(c) Excluding self generation

(d) Inclusive of LECO consumers

Sources: Ceylon Electricity Board  
Lanka Electricity Co Ltd.

The total electricity sales by the CEB declined marginally in 2001, mainly due to power cuts and restrictions of grid electricity for certain purposes such as air conditioning and illuminations etc. Generally, electricity sales have been growing by an average rate of 7 per cent annually. The decline of electricity sales was in a situation where the consumer network expanded by about 7 per cent in 2001. A slowdown in economic activities in 2001 also depressed growth in the electricity demand. During the first half of 2001, when there were no power cuts, the demand for electricity grew by about 5 per cent, compared to a 10 per cent growth during the corresponding period of 2000. In addition, an increase in electricity tariff by 25 per cent from March 2001 may have had an impact on the electricity consumption. Following these developments, per capita consumption of electricity per month fell: in the domestic sector by 5 per cent to 67 GWh; in the industrial and

commercial sectors by 8 per cent and 9 per cent, respectively. The system losses (defined as the loss of electricity at generation, transmission and distribution levels), although decreasing slightly, remained high at 20.6 per cent during 2001.

The cost of power generation rose further in 2001, mainly due to an increase in fuel costs, although CEB continued to obtain diesel at duty-exempted prices. On average, CEB incurred Rs.5.28 for fuel to generate a unit of electricity at its thermal power plants in 2001 when compared to Rs.4.00 per unit in 2000. The average purchase price of private power increased by 32 per cent to Rs.6.37 per unit. The average cost of hired power, generated during January - June 2001, amounted to Rs.12.30 per unit. Overall, the average cost of power, after adjusting for system losses, increased by 23 per cent to Rs.7.20 per unit. However, the average tariff increased only by 21 per cent

## Box 7

## Power Crisis

A reliable and adequate power supply, at competitive prices, is vital to promote economic growth and upgrade the living standards of the people. Sri Lanka's future economic growth prospects depend heavily on the ability to develop its manufacturing and service industries and engage in international trade. This would require significant investment by both domestic and foreign entrepreneurs. However, such investment would be seriously constrained by a lack of this power supply.

Sri Lanka has been experiencing periodic power shortages since 1994. The power crisis in Sri Lanka has not emerged instantaneously. Rather, the elements of power crisis have been building up over the last one and half decades. The Ceylon Electricity Board (CEB), considered a natural monopoly of power, made massive investments in hydropower generation in the 1980s. The need for diversification of the power base was well recognised by the early 1990s as the use of hydro capacity was constrained by unfavourable weather conditions, resulting in periodic power shortages. Although investment plans were designed, proposing thermal power plants to avert future power crises, such plans were either delayed, substituted by other plants, or not implemented due to various interventions. Consequently, the country experienced the worst black out in the history of electricity supply in Sri Lanka in 1996 when an 8-hour power cut, together with restrictions on the use of electricity for non-essential purposes, was imposed. Between 1996-2000, some elements of the power crisis remained in the background, but the authorities were able to avoid power cuts by restricting power usage, hiring generators and imposing tariff surcharges. The power shortages reoccurred in mid 2001 and were extended to 2002, pushing the country into a prolonged power crisis. Currently, the CEB faces two types of crises: a capacity crisis and a financial crisis. These are inter-linked and inseparable. The capacity crisis indicates that the demand for electricity has not been met with an adequate supply. The financial crisis, partly due to the capacity crisis, is the result of a high cost of production due to expensive hired power, high oil prices and a pricing policy that could not generate sufficient revenue to meet costs. These two crises, have raised many questions on responsibility and accountability in the power sector, leading to a management crisis as well.

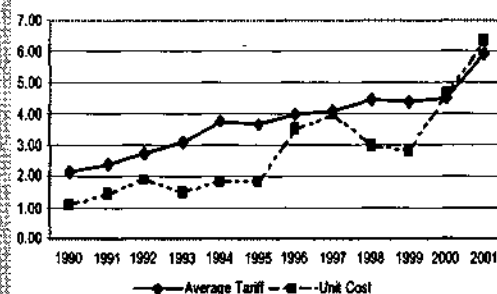
The immediate cause of the capacity crisis has been the failure of 3 consecutive monsoons starting from mid 2000. The power cuts started with 1 1/2 hours in July 2001 increased to 8 hours in September and were subsequently lifted before the General Election of 2001 when there was only a marginal improvement in weather

conditions. A power cut of 1 hour's duration was reintroduced in mid December 2001 and further extended to 2 1/2 hours in early 2002.

The power crisis has affected all sectors of the economy. During 2001, the CEB lost 289 GWh or Rs. 1.6 billion due to power cuts. The CEB had to incur a sum of Rs. 2.3 billion on hired power. The average tariff rate (Rs.5.53) was well below the average unit cost of about Rs.7.20 in 2001. Consequently, there was an operational deficit of Rs. 9 billion in 2001, while CEB's debt stock has risen to Rs. 11 billion. CEB was also unable to repay the annual loan repayment of Rs.4.5 billion due to the government. In order to recover a part of the loss, CEB is required to raise its tariff by at least 37 per cent. in early 2002. The power cuts directly affect industrial output, quality of production and labour productivity. Regular power interruptions also damage machinery and equipment, deteriorating capital stock faster. However, as most of the large-scale industries have their own generators, and output of the export industries has been scaled down due to the slowdown in the global economy, the impact of the power cuts on such industries was mitigated to a certain extent. In contrast, small and medium scale industries, as well as high electricity consuming industries, have been affected more significantly. The continuation of power cuts to 2002, would have an adverse effect on the country's economic recovery, preventing the gain of maximum benefits from the expected recovery in the world economy towards mid 2002.

An analysis of the reasons for the power crisis suggests that it was due to controllable factors rather than the weather. It is clear that low rainfall in the catchment areas was not the prime reason for this crisis. The crisis was more a result of indecision and failure of the authorities to build the planned power plants to expand the capacity adequately, although users were

Chart I  
Average Tariff and Unit Cost

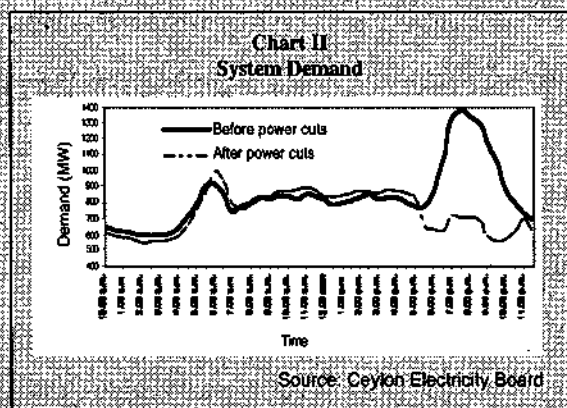


Source: Ceylon Electricity Board



## Box 7 (Contd.)

encouraged to consume more power by maintaining a low tariff policy. In fact the crisis was predicted in advance by CEB and in 1993, a proposal to build a 300 MW coal power plant at Mawella was presented but was not implemented due to the indecision of the political authorities and pressures exerted by environmental groups. Meanwhile, the Upper Kotmale power project, was also delayed due to environmental considerations. In view of the inability to develop these power projects as scheduled, it was proposed to establish two combined cycle power projects, each of 165 MW capacity, to be commissioned in 2001. However, these plants were also delayed. If these plants had been in operation in early 2001 as scheduled, even under dry weather conditions, power cuts could have been avoided. Today, the main problem faced by the electricity sector is meeting the peak demand. The peak demand for electricity reached to a level of 1,445 MW in May 2001. As shown in Graph II, after the power cuts were introduced in 2002, the demand at peak hours was reduced by almost 50 per cent, in line with the available capacity.



Another immediate reason for the present capacity crisis is the loss in output due to frequent breakdowns and lack of timely repairs and maintenance. At the onset of dry weather conditions, the breakdown of the 110 MW gas turbine in November caused 2.1 GWh loss per day (equal to one tenth of the daily demand). Meanwhile, network losses have increased to a significantly high level (21.3 per cent) over the last 5 years, clearly showing that the CEB was unable to manage or reduce system losses.

A financially unviable electricity pricing policy could be cited the main reasons for the present financial crisis faced by the CEB. Significant cross subsidies in the electricity tariff structure placed a high burden on industrialists to subsidise domestic consumption, creating an adverse impact on Sri Lanka's competitiveness.

Benefits of such subsidised prices are available only to the households who have access to these facilities while their costs have to be borne indirectly by the entire population including those who have no access to such facilities. In addition, the average tariff of the CEB was below the average cost, weakening the financial administration of the CEB, socialising the losses, which have to be borne by the general tax payers and creating pressures on market interest rates through heavy bank borrowings.

The next issue to be raised is whether the power crisis would be repeated. Energy experts have pointed out that the worst is yet to come and another power crisis would occur in 2004/2005. The existing installed capacity will be expanded by 200 MW by end 2002 while the Kukule Ganga (80 MW) is the only major project to be added during 2002 – 2004. CEB had earlier expected the first stage of the 300 MW coal fired power plant in Puttalam to be operational in 2004. As this power project progress did not beyond the drawing board, the CEB Plan (2000) emphasised that a 150 MW combined cycle power plant should be operational no later than January 2004. However, no action has been taken on this yet. If no action is taken to build the proposed coal power plant now, and initiate steps immediately for more new large scale low-cost power projects, the crisis will continue for several years.

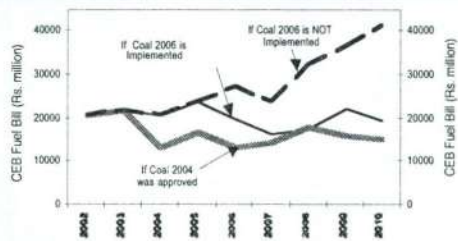
Resolving the power crisis is certainly a complex issue. The power sector authorities would need to address the current capacity and financial crises immediately, while simultaneously taking appropriate measures to avert a long-term crisis. The power shortage in 2001 was basically addressed through power cuts, hiring emergency generators, activating captive generators and prohibiting the use of grid electricity for non-priority purposes. Even in 2002, the CEB has had no alternative other than adopting these measures. In addition, the authorities would need to facilitate and allow the private sector to invest in power generation and distribution, especially for the benefit of industrial zones. More importantly, in order to overcome the present financial crisis, CEB would need to internalise its losses and implement the required tariff increase early. If not, the CEB would have to incur a loss of around Rs. 1 billion per month, adding more pressure on the banking system and imposing a burden on taxpayers. In addition, delays in repairs and maintenance of the power plants should be minimised by expediting tender procedures and strictly adhering to a timetable.

The power sector authorities would need to carefully review and analyse the immediate measures to be taken to avert future power crises. First, to maintain



**Box 7 (Contd.)**

**Chart III**  
**CEB Fuel Cost with and without Coal Power Project**



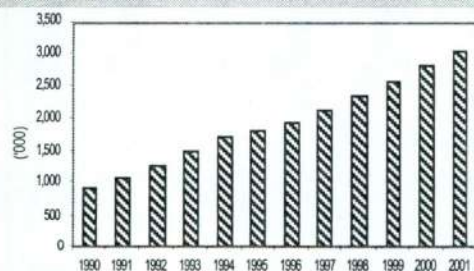
Source: The Power Crisis and Accountability - Paper presented by Dr. Tilak Siyambalapatiya

competitiveness, authorities should guarantee investors a reliable and adequate power supply at competitive prices. The electricity tariff for commercial and industrial sectors in Sri Lanka is comparatively high compared with other Asian countries such as Indonesia (3 US cts. per KWh), Malaysia (5.7 US cts. per KWh), Singapore (5.8 US cts. per KWh), and Thailand (5.8 US cts. per KWh). In this regard, the country needs large-scale power plants operating on relatively inexpensive fuels, and a rational, transparent and cost effective tariff policy. In the long run, the country should have a firm

postponed any further. Over the next 30 years, the country may have to use all appropriate sites to build coal power plants. Graph III shows the cost of electricity with and without the coal power project being implemented.

Second, it is essential to implement the Upper Kotmale hydroelectric project immediately, as the project is 6 years behind schedule. Third, an independent advisory committee, comprising of professionals in the energy field, stakeholders from the private sector, economists, government officials etc. should be set up with autonomy to assess the long term needs, design policies and strategies and make recommendations for the energy sector. Fourth, it is essential to improve the accountability of the energy authorities. This will be facilitated with the proposed unbundling of the CEB under the restructuring programme of the CEB. In order to establish accountability of the power authorities, institutions should be freed from political interference and other interventions and, in particular, technical issues of the electricity sector (selecting proper energy mix, selecting location, deciding tariff) should be permitted to be handled by professionals rather than politicians or environmentalists. Past experience indicates that the cost of these interventions are unbearable. Fifth, authorities should pay special attention to accelerating the network loss reduction programme. If the current network loss could be reduced to 15 per cent, the energy saved would be 350 GWh equivalent to installing a 50 MW diesel plant. The replacement of the old distribution networks with new equipment and addressing issues relating to erroneous meter reading and unmetered supplies are essential in this regard. Sixth, as many have argued, an effective demand management policy is also an essential requirement to enhance the efficiency of energy usage. Finally, as future expansion in capacity, transmission and distribution of power have to depend mainly on the private sector, an appropriate independent regulatory authority is crucial for setting standards, benchmarks and norms for the power sector.

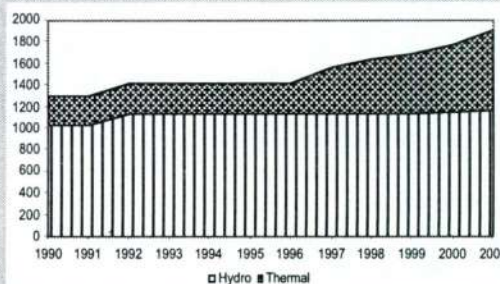
**Chart IV**  
**No. of Consumers**



Source: Ceylon Electricity Board

power base (steam based technology, combined cycle technology) rather than depending on the diesel generators as the demand for power is growing rapidly with the expansion of the economy. Even though there is considerable debate on whether coal is the best option, it is widely used all over the world, including in competitor trading countries such as China, India and the Philippines. With modern technology, it would be the best option in economic terms. Undoubtedly, developing alternative energy sources such as solar, wind and dendro is essential diversify the energy base. However, to address to the growing long-term economic needs, these sources are not only inadequate but also costly. Hence, the proposed coal power project should not be

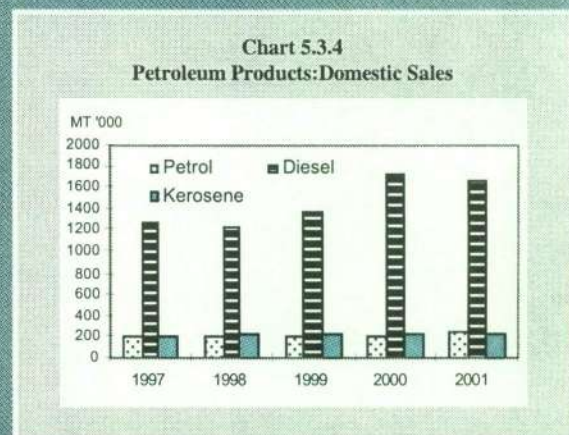
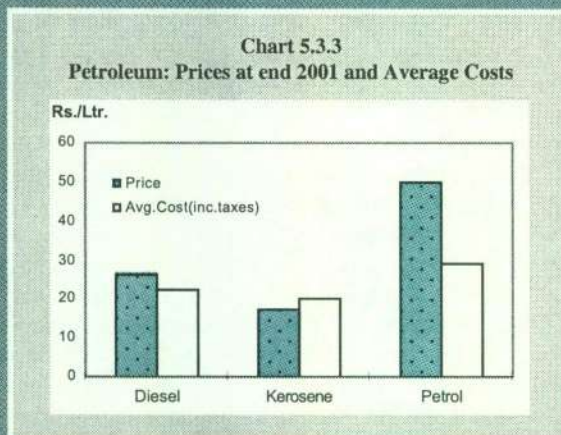
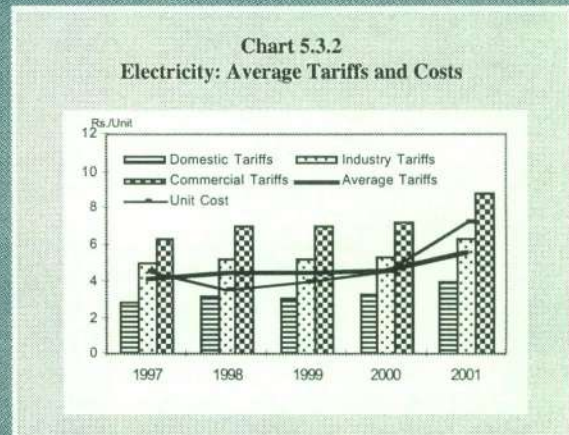
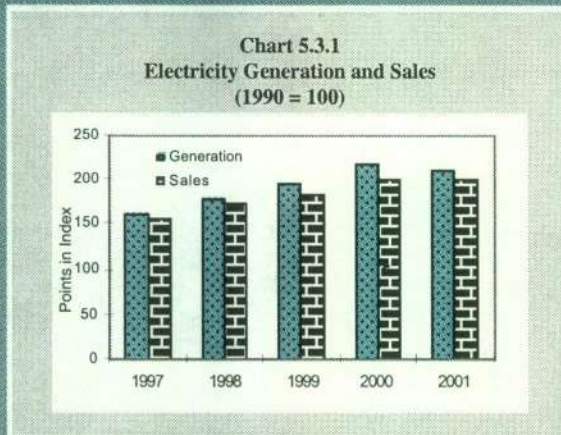
**Chart V**  
**Capacity Expansion 1990 - 2001**



Source: Ceylon Electricity Board



**Chart 5.3**  
**Major Energy Sources**



to Rs.5.53 per unit mainly due to the imposition of a 25 per cent surcharge with effect from March 2001. According to provisional data, the total revenue of the CEB amounted to Rs.31,247 million, while operating expenditure amounted to Rs.42,058 million resulting in an operating loss of Rs.8,214 million, excluding interest payment of Rs. 3,397 million. In comparison, the operating loss in 2000 amounted to Rs.4,147 million before interest payment of Rs. 2,576 million. The continuous operating losses have led the CEB to borrow heavily from the banking system. Commercial bank advances to CEB increased to Rs.10.5 billion at end 2001 from Rs.3.9 billion a year ago. The high cost of power generation, coupled with a non-flexible pricing policy has been mainly responsible for the deterioration in the financial position of the CEB.

Several new power projects were under construction during 2001. The Kukule Ganga hydropower project was

in progress to add 80 MW of capacity to the national grid. The project is expected to be completed by end 2003. There were 7 mini hydro power plants with a total capacity of 22 MW under construction in the private sector. Most of these power plants are expected to be commissioned in 2002. In addition, there were 28 more mini hydro power plants with a capacity of 68 MW at various stages of implementation. The first phase of the Kelanitissa combined cycle power plant (110 MW gas turbine) was commissioned in November 2001. The plant, which uses naphtha as its base fuel, is expected to utilise the entire production of naphtha at the Sapugaskanda refinery. The second phase of the project (55 MW Steam Turbine) is scheduled to be completed by August 2002. The total cost of the project has been estimated at Rs.10,616 million. The second combined cycle power plant by the private sector was also in progress during the year. The first phase of the project



with a 108 MW gas turbine is expected to be commissioned by June 2002. A diesel power plant of 20 MW, being constructed by a private company in Matara, was also in progress and expected to be commissioned in March 2002. CEB also continued to implement rural electrification projects and transmission and distribution improvement projects.

A new Electricity Act has been drafted with a view to reforming the CEB and establishing a regulatory authority for the electricity sector. Under the proposed reforms, the activities of the CEB are expected to be unbundled and separate institutions are expected to be created to undertake power generation, transmission and distribution.

### Petroleum

The demand for major petroleum products dropped marginally in 2001 for the first time since 1993. The slowdown in economic activities, high local prices and low

demand for thermal power generation are mainly responsible for this drop. On average, the demand for major petroleum products had been rising by about 12 per cent annually in the past few years. The CPC imported 1.9 million MT of crude oil and 1.4 million MT of refined products to meet the demand. The composition of crude oil imports was Iranian Light (50 per cent), Miri Light from Malaysia (20 per cent), Arabian Light (14 per cent) and Upper Zakum from UAE (10 per cent). Refined product imports were mainly diesel and Liquefied Petroleum gas (LP gas).

The average import price of crude oil (c&f) declined by 15 per cent to US dollars 24.47 per barrel in 2001. Crude oil prices continued to remain high, above US dollars 25 per barrel, till September and gradually declined thereafter. The average import price, which was around US dollars 26.22 per barrel during the first half of 2001, dropped to US dollars 18.73 per barrel in December 2001. Meanwhile, the total outlay on petroleum imports declined

TABLE 5.7  
Performance of the Petroleum Sector

| Item                                | Unit        | 1999   | 2000   | 2001(a) | Percentage Change |         |
|-------------------------------------|-------------|--------|--------|---------|-------------------|---------|
|                                     |             |        |        |         | 2000              | 2001(a) |
| Quantity imported                   |             |        |        |         |                   |         |
| Crude oil                           | MT '000     | 1,826  | 2,330  | 1,954   | 28                | -16     |
| Refined products                    | "           | 1,303  | 1,266  | 1,420   | -3                | 12      |
| L.P. gas                            | "           | 127    | 134    | 126     | 6                 | -6      |
| Value of imports (C&F)              |             |        |        |         |                   |         |
| Crude oil                           | Rs. mn.     | 18,222 | 39,343 | 31,619  | 116               | -20     |
|                                     | US\$ mn.    | 259    | 519    | 354     | 100               | -32     |
| Refined products                    | Rs. mn.     | 9,964  | 24,452 | 28,911  | 145               | 10      |
|                                     | US\$ mn.    | 142    | 323    | 301     | 127               | -7      |
| L.P. gas                            | Rs. mn.     | 2,505  | 4,172  | 4,295   | 67                | 3       |
|                                     | US\$ mn.    | 36     | 55     | 48      | 53                | -19     |
| Average price of crude oil (C&F)(b) | Rs./barrel  | 1,353  | 2,181  | 2,200   | 61                | 1       |
|                                     | US\$/barrel | 18.91  | 28.77  | 24.47   | 52                | -15     |
| Quantity of exports                 | MT '000     | 204    | 227    | 146     | 11                | -36     |
| Value of exports                    | Rs. mn.     | 3,017  | 5,346  | 3,663   | 77                | -33     |
|                                     | US\$ mn.    | 43     | 71     | 40      | 65                | -44     |
| Local sales                         | MT '000     | 2,835  | 3,303  | 3,295   | 17                | 0       |
| Super petrol                        | "           | 213    | 220    | 244     | 3                 | 11      |
| Unleaded petrol                     | "           | 3      | 4      | 5       | 33                | 25      |
| Auto diesel                         | "           | 1,377  | 1,715  | 1,672   | 25                | -3      |
| Super diesel                        | "           | 40     | 47     | 49      | 18                | 4       |
| Kerosene                            | "           | 243    | 229    | 228     | -6                | 0       |
| Furnace oil                         | "           | 676    | 785    | 816     | 16                | 4       |
| Avtur                               | "           | 143    | 157    | 139     | 10                | -12     |
| L.P. gas                            | "           | 140    | 146    | 141     | 4                 | -3      |
| Local Price (at period end)         |             |        |        |         |                   |         |
| Super Petrol                        | Rs./litre   | 50.00  | 50.00  | 50.00   | 0                 | 0       |
| unleaded Petrol                     | "           | 53.00  | 53.00  | 53.00   | 0                 | 0       |
| Auto Diesel                         | "           | 13.20  | 24.50  | 26.50   | 86                | 8       |
| Super Diesel                        | "           | 18.50  | 29.80  | 31.80   | 61                | 7       |
| Kerosene                            | "           | 10.40  | 18.40  | 17.40   | 77                | -5      |
| Furnace Oil                         |             |        |        |         |                   |         |
| 500 Seconds                         | Rs./litre   | 7.80   | 15.90  | 17.80   | 104               | 12      |
| 800 Seconds                         | "           | 7.50   | 15.10  | 17.00   | 101               | 13      |
| 1,000 Seconds                       | "           | 7.20   | 14.60  | 16.50   | 103               | 13      |
| L.P. Gas                            |             |        |        |         |                   |         |
| Shell gas                           | Rs./kg.     | 25.77  | 40.72  | 40.72   | 58                | 0       |
| Laughs gas                          | "           | -      | -      | 32.72   | -                 | -       |

(a) Provisional

(b) As reported by Ceylon Petroleum Corporation

Sources: Ceylon Petroleum Corporation  
Shell Gas Lanka Ltd.  
Laughs Lanka Gas (pvt) Ltd.

by 19 per cent to US dollars 731 million in 2001, due to the decline in both price and volume of imports. Petroleum imports as a percentage of total imports declined to 12 per cent in 2001 from 13 per cent in 2000.

The domestic demand for major petroleum products weakened significantly and recorded a near zero growth in 2001. Diesel consumption, which constitutes about 50 per cent of the total petroleum consumption, dropped by 3 per cent in 2001. A drop in diesel consumption at thermal power plants by 15 per cent was the main reason for this decline. Diesel consumption in estates and in the transport sector also declined owing to the slowdown in economic activities and higher local prices. Diesel and furnace oil prices were further raised in April by Rs.3.00 and Rs.1.80 per litre, respectively, to recover continuous losses accruing to the CPC. Meanwhile, furnace oil sales rose by 4 per cent, when compared to a 16 per cent increase in 2000. Petrol sales expanded by 11 per cent. The declining trend in kerosene oil consumption in recent years was halted in 2001 due to a renewed demand for kerosene oil along with power cuts. The sale of aviation fuel dropped by 12 per cent, after the terrorist attack on the Katunayake International Airport and terrorist attacks in USA.

CPC introduced a long overdue flexible pricing policy in 2001, under which local prices of major petroleum products are expected to be change monthly, based on changes in costs of production. Any gain or loss due to the fluctuations in international crude oil prices, the exchange rate or other input prices will be passed on to consumers. Accordingly, the diesel price was reduced by Rs.1.00 per litre with effect from December 28, and further revisions were due in 2002. Along with increased local prices and lower crude oil prices, CPC was able to reduce its bank loans from Rs.23.5 billion at end 2000 to Rs.18.7 billion by end 2001. Under the new pricing policy, provisions have been made to recover the cumulative losses of CPC amounting to Rs.16 billion within 2 years. According to provisional data, the CPC has reported a net profit of Rs.230 million in 2001.

The domestic market for petroleum products needs to become more competitive. A treasury department was established within the CPC to improve procurement and financial aspects of the CPC. The unbundling of refined product imports, bunker and aviation fuel supplies and operation of refinery and petroleum distribution have been proposed to improve the competitiveness and efficiency in the petroleum sector.

Local consumption of LP gas dropped in 2001 for the first time in two decades, mainly due to substantial price increases during 2000. The price of LP gas rose by 58 per cent in 2000 in line with increases in world market prices. LP gas consumption declined by 3 per cent to 141,000 MT in 2001. The monopoly status held by Shell Gas Lanka Ltd

for LP gas imports and distribution expired in December 2000. A new local company, Laugfs Lanka Gas (Pvt) Ltd. entered the market in November 2001 relying on the LP gas production at the refinery as its main source. The price reduction by the new company may trigger a price war leading to lower prices in the future.

## 5.6 Transportation

### Roads

An efficient and widespread road network facilitates faster economic growth through greater access to economic resources, by opening of markets and also by reducing the cost of production. Road transportation contributes about 93 per cent of land transportation in Sri Lanka. At present there are about 108,000 kilometres of road network in the island, of which approximately 25,000 kilometres are weather-paved roads. Of the paved roads 11,547 kilometres of roads have been classified as National Highways (A and B classes) and are maintained by the Road Development Authority (RDA). The provincial councils maintain about 15,000 kilometres of C and D class roads while rest of the roads are maintained by local authorities and some other public institutions.

During 2001, RDA spent Rs.10,456 million on maintenance, rehabilitation, widening and construction of national highways and bridges. This was 14 per cent higher than the amount spent in the previous year. Of the total expenditure, about 64 per cent was financed from the Consolidated Fund, while the balance was obtained as foreign assistance.

RDA continued to implement several major road and bridge rehabilitation projects with foreign aid during 2001. The World Bank Road Rehabilitation Project-III, which commenced in 1996 to rehabilitate 397 kilometres of roads and reconstruction of 19 bridges in the Southern, Western and North-Western provinces, was almost completed by end 2001. The Asian Development Bank (ADB) funded Third Road Development Project has two components, namely, the Third Road Rehabilitation and Improvement Project and the Road Network Improvement Project. Under the Third Road Rehabilitation and Improvement Project, several road projects were implemented with the participation of local and foreign contractors. The rehabilitation of 345 kilometres of roads and the improvement of 47 bridges under the Road Network Improvement Project were in progress during the year.

The Baseline Road Improvement Project Stage - II commenced in March 2001 with JBIC assistance. This project is expected to be completed during 2002. The Kuwait Fund for Arab Economic Development has granted financial assistance to reconstruct 27 bridges. Under this programme the reconstruction work of 10 bridges was completed during 2001. A similar number of bridges were

completed in the previous year. In addition, the Ratnapura - Balangoda section (42 kilometres) of the Ratnapura - Bandarawela Road Rehabilitation Project was also in progress during the year. This project is expected to be completed by September 2002. The total estimated cost of this project is Rs.2,130 million.

RDA also carried out a large number of road and bridge reconstruction and rehabilitation projects with local funds covering all provinces. Major road construction projects under the purview of the RDA such as the Colombo - Matara Expressway, the Colombo - Kandy Expressway, the Colombo - Katunayake Expressway and the Colombo Outer Circular Highway projects remained at various stages of implementation. The Colombo - Matara Expressway which links the proposed Outer Circular Highway at Kottawa is financed jointly by ADB and JBIC. The detailed engineering design of the road section to be financed by ADB (Kurundugahahetekma - Godagama 56 kilometres) has been completed and the procurement of a civil work contract was in progress. The detailed engineering design of the JBIC section of the project (Kottawa - Kurundugahahetekma 67 kilometres) has also been completed, while the pre-qualification of civil work contractors and the selection of supervision consultants were in progress. The Nordic Development Fund is separately financing the management consultancy work for the entire expressway.

It has been observed that despite a reasonable compensation package being offered, there was significant resistance from the general public towards the acquisition of lands causing delays in the implementation of several road projects. There were a large number of court cases against land acquisition. Further, inadequate co-ordination between relevant institutions too has led to delays in the implementation of road projects. However, RDA has introduced a new policy on the payment of compensation and resettlement of people affected by the acquisition of lands. A market value based compensation package, full payment of the compensation prior to the requisition of land and the provision of lands for resettlement are some of the measures newly introduced by RDA to expedite the acquisition process.

Although Sri Lanka has a reasonable road density of more than 1.6 kilometres of roads per square kilometre of area, it does not ensure smooth traffic flow and equitable access at a low cost. Only one fourth of the total road network in the country is weather paved and a greater part of these roads are not routinely maintained, especially at the provincial level. Along with the increase in the number of motor vehicles, traffic congestion in the major cities has gradually increased as the city road systems and traffic management have not been systematically improved. The economic cost of persistent traffic congestion is enormous.

A high incidence of road accidents, air pollution in city centres, delays and the loss of man-hours would definitely exert a negative impact on economic efficiency and city life. The adverse impact could be mitigated to some extent by improving traffic management, enforcing regulations, introducing the proper legal framework and building parking facilities in major cities.

### Passenger Transport

The overall performance of road and rail passenger transportation showed a marginal improvements in 2001, while air passenger transportation suffered a setback due to the July 24 terrorist attack on the KIA and the September 11 terrorist attacks in USA. The improvement in road and rail passenger transportation was mainly the result of an expansion in the fleet. However, the service quality, efficiency and financial viability of the Sri Lanka Railways (SLR), and the Regional Transport Companies (RTCs), as well as private bus operators, remained unsatisfactory during the year.

### Bus Transport

The total bus fleet available for passenger transportation at end 2001 stood at 24,583 of which 15,520 were owned by the private sector and the balance by the RTCs. The average number of buses available for daily operations increased slightly to 16,586. About one third of the total bus fleet remains non-operational for need of repairs, a sign of an aging bus fleet. According to the Department of Motor Traffic, new registration of buses dropped by 32 per cent to 1,257 in 2001.

The total passenger kilometres operated by RTCs and the private sector increased by 2 per cent to 48,684 million during the year. The share of RTCs in the total passenger kilometres was 44 per cent. The escalating operating costs, mainly due to the increase in fuel cost, spare part prices, salaries and wages in a situation where passenger fares remained inflexible, was a major issue in the passenger transport sector in 2001. The government permitted a bus fare hike of about 15 per cent with effect from 7 January 2001, after two fare increases of the same magnitude in 2000. In response to the demand for a further increase in bus fares, the Ministry of Transport set up a Transport Fares Revision Committee to formulate a mechanism under which regular fare revisions could be implemented on the basis of cost effectiveness. The report was submitted to the Ministry in August 2001. The implementation of a rational fares policy is essential to maintain the viability, quality and efficiency of the transport system.

The government continued to provide financial assistance to RTCs and private operators to maintain bus services on uneconomic routes. These routes were identified in a survey conducted as far back as 1986. New studies



**TABLE 5.8**  
**Salient Features of the Transport Sector**

| Item   | Unit     | 1999    | 2000   | 2001(a) | Percentage Change |         |
|--|----------|---------|--------|---------|-------------------|---------|
|  |          |         |        |         | 2000              | 2001(a) |
| <b>1. New registration of motor vehicles</b> | nos.     | 102,853 | 91,929 | 72,634  | -10.6             | -21.0   |
| Buses  | "        | 2,118   | 1,852  | 1,310   | -12.6             | -29.9   |
| Private coaches                              | "        | 493     | 446    | -       | -9.5              | -       |
| Private cars                                 | "        | 10,532  | 13,848 | 8,426   | 31.5              | -39.2   |
| Three wheelers                               | "        | 14,706  | 11,656 | 10,274  | -20.7             | -11.9   |
| Dual purpose vehicles                        | "        | 9,818   | 7,928  | 5,664   | -19.3             | -26.0   |
| Motor cycles                                 | "        | 42,497  | 39,987 | 34,119  | -5.9              | -14.7   |
| Goods transport vehicles                     | "        | 13,361  | 8,585  | 6,013   | -35.7             | -30.0   |
| Land vehicles                                | "        | 9,290   | 7,530  | 6,546   | -18.9             | -13.1   |
| Others                                       | "        | 38      | 97     | 82      | 155.3             | -15.5   |
| <b>2. Sri Lanka Railways (S L R)</b>         |          |         |        |         |                   |         |
| Operated kilometers                          | '000     | 8,900   | 8,585  | 8,800   | -3.5              | 3.2     |
| Passenger kilometers                         | mn.      | 3,104   | 3,208  | 3,979   | 3.4               | 24.0    |
| Freight ton kilometers                       | mn.      | 103     | 88     | 109     | -14.6             | 23.9    |
| Total revenue                                | Rs.mn.   | 1,038   | 1,015  | 1,186   | -2.2              | 16.6    |
| Current expenditure                          | "        | 2,585   | 2,686  | 3,021   | 3.9               | 12.5    |
| Operating loss                               | "        | 1,546   | 1,671  | 1,835   | 8.1               | 9.8     |
| Capital expenditure                          | "        | 2,140   | 5,040  | 5,856   | 135.5             | 16.2    |
| <b>3. Regional Bus Companies</b>             |          |         |        |         |                   |         |
| Operated kilometers                          | mn.      | 344     | 387    | 420     | 12.5              | 8.5     |
| Passenger kilometers                         | "        | 17,956  | 19,864 | 21,204  | 10.6              | 6.7     |
| Total revenue                                | Rs.mn.   | 5,722   | 7,507  | 9,625   | 31.2              | 28.2    |
| Operational expenditure                      | "        | 7,038   | 8,491  | 10,854  | 20.6              | 27.8    |
| Operating loss                               | "        | 1,316   | 984    | 1,229   | -25.2             | 24.9    |
| <b>4 SriLankan Airlines</b>                  |          |         |        |         |                   |         |
| Hours flown                                  | hrs.     | 35,970  | 52,819 | 47,402  | 46.8              | -10.3   |
| Passenger kilometers flown                   | mn.      | 5,185   | 6,860  | 6,558   | 32.3              | -4.4    |
| Passenger load factor                        | %        | 71      | 67     | 67      | -5.9              | 0.6     |
| Weight load factor                           | %        | 57      | 56     | 58      | -1.6              | -       |
| Freight                                      | mt. '000 | 57      | 55     | 53      | -3.5              | -3.6    |
| Employment                                   | no.      | 4,955   | 4,886  | 4,066   | -1.4              | -18.8   |

(a) Provisional

Sources: Department of Motor Traffic  
Sri Lanka Railways  
National Transport Commission  
Department of Civil Aviation  
SriLankan Airlines

have not been carried out to ascertain the changes that have taken place thereafter, such as changes in population density, improvement of roads etc, which may require restructure the subsidies. Taking these factors into account, a committee was appointed in 2001 to formulate a computer based costing formula to determine the disbursement of subsidies.

RTCs continued to expand their fleet and bus operations during 2001. As a result, RTC's share in passenger transport in terms of passenger kilometres rose to 44 per cent, 2 percentage points higher than in the previous year. Government policy in respect of road passenger transport is to increase the public sector share to about 60 per cent. Although bus fares increased by more than 50 per cent since 2000, the financial situation of RTCs did not show any improvement in 2001. Although the total revenue increased by 28 per cent to Rs. 9,625 million in 2001, operating expenditure increased by 28 per cent, resulting in an operating loss of Rs 1,229 million. In addition to the revenue from passenger fares, RTCs received

a sum of Rs. 483 million from the government as reimbursement for season tickets to students and for operation of uneconomic routes.

The Sri Lanka Central Transport Board (SLCTB) continued to assist RTCs and was directly involved in the operation of bus services in the Northern Province. It also continued to operate several workshops to repair buses. All major workshop requirements of RTCs were provided at SLTB workshops. Four depots in the northern region with 171 buses were functioning under the direct purview of SLCTB.

At end 2001, there were 38,810 permanent employees in RTCs, which amounts to 7 workers per bus. This is higher than the optimum level of about 5-6 workers per bus. In spite of the excess work force, SLCTB and RTCs experienced a shortage of skilled labour, especially in mechanical grades, which led to delays in attending to bus repairs, indicating the need for outsourcing the same for greater cost efficiency. The average number of operating buses can be increased by increasing capacity in workshops.

by training the existing workforce and purchasing new equipment. Alternatively, private sector resources could be used for this purpose.

The fleet of private bus operators declined slightly to 15,520 by end 2001. Of the total bus fleet, about 70 per cent were operational during the year. The National Transport Commission issued 315 new permits to private operators and renewed 3,138 route permits during the year. As in previous years, the load factor of the private sector buses remained high at 150 per cent.

It is important to note that the bus transport services cannot be improved unless the bus fares are deregulated and a proper competitive system is established while the state sector bus operation is depoliticised. Any plan to develop the system should take these factors in to account.

### Rail Transportation

The scale of operations of the Sri Lanka Railways (SLR), in terms of passenger kilometres increased appreciably in 2001, mainly due to the expansion of rolling stock position and holding cheaper fares than in bus transportation. However, there was no noticeable improvement in the standards of services provided by SLR.

As in previous years, SLR continued to operate limited train services in the country excluding most parts of the Northern and Eastern provinces. Although SLR has a route network of 1,447 kilometres, its operations currently cover only 75 per cent of this. The locomotive position of SLR was strengthened by adding 9 more new engines from France, 2 engines from India and 1 re-engined locomotive. In addition, 40 rail wagons for goods transportation were purchased from Pakistan during the year. As a result, SLR was able to add 8 passenger train services and 2 freight train services in 2001. Consequent on these developments, the operated kilometres of SLR increased marginally by 3 per cent, while the passenger kilometrage increased by 24 per cent. The sharp growth in passenger kilometrage was partly due to the shift of commuters from bus services, to train services as bus fares were raised by over 50 per cent since 2000. Goods transportation also increased by 24 per cent in 2001.

The quality of rail services showed no significant improvement in 2001. Only 50 per cent of the short distance commuter trains arrived at their destination on time. In the case of long distance trains, this was even lower (28 per cent). A number of factors contributed to the poor punctuality of the train services. The daily availability of locomotives remained around 125 – 130, whereas the requirement was 149 locomotives per day. In addition, locomotive failures, derailments, signal failures and speed limitations due to weak tracks also affected punctuality. There were 660 locomotive failures, 96 derailments, over 2000 signal failures reported during 2001. Frequent labour

unrest in the latter part of the year also disturbed the normal conduct of train services. These developments emphasise the need for a thorough investigation of the operating conditions of SLR and the drawing up and implementation of appropriate plans to revitalise rail services for the benefit of rail commuters as well as to reduce the strain on the government budget.

Despite escalating operating expenses due to increased salaries and wages and fuel prices, rail passenger fares were not revised, thereby creating large operating losses in SLR. However, after a lapse of 11 years, freight tariffs were revised in September 2001, more than twofold for general cargo. The freight tariff system was also simplified by reducing the number of categories. However, rail freight charges are still below road freight charges. A Freight Business Unit was established within the SLR to promote goods transportation on a commercial basis.

SLR carried out several infrastructure development projects during 2001. Construction of a second rail track on the coastal line up to Wadduwa and on the Puttalam line up to Negombo was in progress during the year. Three railway bridges at Induruwa, Dodanduwa and Gintota on the coastal line were replaced with new bridges under an Indian line of credit. Phase II of the installation of a colour light signalling system on the coastal line from Hikkaduwa to Matara commenced at the end of the year. Meanwhile, 2 kilometres on the proposed Matara - Kataragama rail track was completed and train services commenced in 2001.

Although the scale of operations improved, the overall financial position of SLR deteriorated further during the year under review. Revenue of SLR rose by 17 per cent mainly due to the expansion in passenger and freight transportation. Operating expenditure also increased by 12 per cent as a result of increased expenses on salaries and wages and on fuel. Consequently, the operating loss of SLR rose by 10 per cent to Rs. 1,835 million in 2001.

### Civil Aviation

The civil aviation sector, which performed well until July 2001, suffered a serious setback after the terrorist attack on KIA in July and the September 11 terrorist attacks in USA. Further, the world economic slow-down also had adverse impact on international travel. The terrorist attack on the KIA completely destroyed three airbuses and extensively damaged an equal number of aircraft, depleting SriLankan Airline's (SLA) fleet by a half. After the attack, insurance underwriters substantially increased the war risk insurance premia on aircraft passing through KIA. The war risk premium on passenger liability payable by SriLankan Airlines (SLA) increased from US dollars 103,376 to US dollars 383,627 and the hull war risk premium increased from US dollars 161,031 to US dollars 4,064,431. As a result, SLA re-scheduled its flights via Male to maintain minimum services. Some reputed

international carriers pulled out their services from Colombo, while other carriers reduced the number of flights to KIA. At the same time, most of the airlines downgraded their equipment to old aircraft to avoid heavy insurance premia. Subsequent to the September 11 incident in USA, the war risk premia was raised again in October. Accordingly, the war risk premia on passenger liability increased substantially from US dollars 383,627 to US dollars 3,868,397, bringing passenger and cargo movement at KIA almost to a standstill. At this stage, the government undertook the liability for any additional risk by depositing US dollars 50 million with an internationally reputed custodian. Under these circumstances, the passenger traffic at KIA dropped by 24 per cent during the second half of the year, in contrast to the increase of 14 per cent in the first half, over the corresponding periods in 2000. Following the same trend, freight handling dropped by 22 per cent during the second half of the year.

The government took a series of remedial actions to mitigate the adverse impact of the terrorist attack on KIA. All types of aircraft that landed at KIA were exempted from landing charges. A National Civil Aviation Security Committee was established to implement a new National Civil Aviation Security Program. The government also invited a team of aviation security experts from the International Civil Aviation Organisation (ICAO) to assess the security arrangements and discussions were held with insurance underwriters to get the premium down to normal levels.

There were 27 airlines (including 2 local airlines) serving in Sri Lanka by end 2001. The total number of passengers passing through KIA dropped by 7 per cent in 2001 when compared to 2000. Of the total, 63 per cent travelled by SLA. Following the same trend, the total freight handled at KIA dropped by 15 per cent during 2001. Of the total cargo handled, about 52 per cent was carried by SLA which was about a 5 per cent drop over the previous year.

During 2001, SLA flew 45 million kilometres; a 5 per cent drop over the previous year, while passenger kilometres flown by SLA declined by 4 per cent. Operational revenue of SLA increased marginally to Rs.28 billion, while operating expenditure increased by 15 per cent to Rs.37 billion, resulting in an operating loss of Rs.9 billion during the year.

It is important to note that the recovery process followed by SLA to overcome the crisis was very effective. Despite SLA losing half of its fleet and the worsening international environment, SLA was able to retain the confidence of the market and continued its services. Restructuring of its services and implementation of a voluntary retirement scheme as cost cutting measures were among strategies used in the recovery process. This indicates the effectiveness of crisis management under private control.

## Port Services

Port services, which were growing significantly during the first half of the year, suffered a severe setback during the second

half. The primary reason was the diversion of many shipping lines calling at Colombo due to the substantial increase in a war risk insurance premia on vessels calling at Sri Lankan ports subsequent to the terrorist attack on KIA. An initial insurance surcharge of 0.1 to 0.25 per cent of the hull value was imposed immediately after the terrorist attack and later increased to 0.5 to 1.0 per cent. The insurance surcharge on cargo was US dollars 350 per TEU transported by main vessels and US dollars 150 per TEU transported by feeder vessels. The war risk surcharge was reduced substantially towards the end of the year and completely withdrawn in early 2002.

Enhancing productivity and efficiency in the Port of Colombo to internationally competitive levels and expanding port facilities to accommodate growth in demand are essential for long-term sustainability of the port. Failure to develop the Colombo Port as an efficient shipping centre in the region would risk the hub status of the port, as ports in neighbouring countries would attract major shipping lines. The commencement of the operations of South Asia Gateway Terminals Ltd (SAGT) has created a competitive environment in which the efficiency of the other parts of the port could be improved.

The overall performance of port activities showed negative growth in 2001. Before the terrorist attack in July, operations of all three ports, at Colombo (including SAGT), Galle and Trincomalee, were growing significantly when compared with 2000. In July 2001, the Port of Colombo recorded its highest ever-monthly transshipment handling amounting to 118,849 TEUs. However, port operations declined significantly after July, 2001. In addition to the war risk surcharge, labour disputes at the Port of Colombo severely affected port operations during the second half of the year. The slowdown in international trade, with the global economic depression and the drop in the inward and outward cargo handling due to the decline in domestic imports and exports, also adversely affected port activities.

Total cargo handled at all three ports declined by 2 per cent in 2001. About 71 per cent of the total cargo handled is containerised. The total volume of container throughput at the Port of Colombo (including SAGT) marginally declined in comparison to a 2 per cent increase in 2000. Transshipment container movements, which constituted about 69 per cent of the total container throughput in 2001, increased marginally as the Port of Colombo attracted several major shipping lines during the first half of the year.

Terminal-wise, container handling at SAGT grew by 10 per cent, while at terminals belonging to SLPA, which contributed about 81 per cent of the total container handling, declined by 2 per cent. The Jaya Container Terminal (JCT) operated under-capacity during the year as 2 out of 14 gantry cranes were not available for cargo handling as they underwent repairs. Meanwhile, at SAGT, the modernisation of the terminal, coupled with higher efficiency and productivity,



**TABLE 5.9**  
**Performance of the Port Services**

| Item  | 1999   | 2000   | 2001(a) | Percentage Change |         |
|---|--------|--------|---------|-------------------|---------|
|   |        |        |         | 2000              | 2001(a) |
| 1 Vessels arrived (No.)                     | 4,339  | 4,232  | 4,014   | -2                | -5      |
| Colombo(b)                                  | 3,968  | 3,832  | 3,570   | -3                | -7      |
| Galle                                       | 97     | 97     | 117     | 0                 | 21      |
| Trincomalee                                 | 274    | 303    | 327     | 11                | 8       |
| 2 Total cargo handled (MT '000)             | 26,995 | 27,535 | 27,062  | 2                 | -2      |
| Colombo(b)                                  | 24,825 | 25,222 | 24,741  | 2                 | -2      |
| Galle                                       | 439    | 597    | 662     | 36                | 11      |
| Trincomalee                                 | 1,731  | 1,716  | 1,659   | -1                | -3      |
| 3 Total container traffic (TEUs '000)       | 1,704  | 1,733  | 1,727   | 2                 | 0       |
| SLPA  | 1,636  | 1,432  | 1,397   | -12               | -2      |
| SAGT  | 68     | 301    | 330     | 343               | 10      |
| 4 Transshipment container (TEUs '000)       | 1,153  | 1,181  | 1,195   | 2                 | 1       |
| SLPA  | 1,108  | 959    | 959     | -13               | 0       |
| SAGT  | 45     | 222    | 236     | 393               | 6       |
| 5 Revenue (Rs. mn.) (c)                     | 15,089 | 14,717 | 16,387  | -2                | 11      |
| Colombo                                     | 14,552 | 14,079 | 15,624  | -3                | 11      |
| Galle                                       | 225    | 320    | 389     | 42                | 22      |
| Trincomalee                                 | 311    | 318    | 374     | 2                 | 18      |
| 6 Expenditure (Rs. mn.) (c)                 | 9,765  | 10,744 | 11,127  | 10                | 4       |
| Colombo                                     | 9,316  | 10,272 | 10,511  | 10                | 2       |
| Galle                                       | 190    | 208    | 270     | 9                 | 30      |
| Trincomalee                                 | 259    | 264    | 346     | 2                 | 31      |
| 7 Operating profit-before tax (Rs.mn.) (c)  | 5,323  | 3,973  | 4,195   | -25               | 6       |
| Colombo                                     | 5,236  | 3,807  | 4,050   | -27               | 6       |
| Galle                                       | 35     | 112    | 117     | 220               | 4       |
| Trincomalee                                 | 52     | 54     | 28      | 4                 | -48     |
| 8 Employment (no.) (c)                      | 18,930 | 19,344 | 18,561  | 2                 | -4      |
| Colombo                                     | 17,075 | 17,411 | 16,744  | 2                 | -4      |
| Galle                                       | 777    | 758    | 737     | -2                | -3      |
| Trincomalee                                 | 1,078  | 1,175  | 1,080   | 9                 | -8      |
| 9 Productivity indicators (main vessels) b) |        |        |         |                   |         |
| Gantry moves per hour (gross)               | 15     | 15     | 16      | 0                 | 7       |
| Gantry moves per Hour (net)                 | 17     | 17     | 18      | 0                 | 6       |

(a) Provisional

Source: Sri Lanka Ports Authority

(b) SAGT Commenced cargo handling at the QEO w.e.f. 5 September 1999.

(c) Only for Sri Lanka Ports Authority

TEUs = Twenty-foot equivalent container units

resulted in a 10 per cent growth in container handling even under difficult conditions.

In 2001, cargo-handling efficiency at SLPA terminals showed a marginal increase when compared with the previous year. In respect of mainline vessels, gantry-crane productivity, defined as the number of containers handled per hour, increased to 16 (gross) in 2001 from 15 in the previous year. Berth productivity also increased marginally from 33 moves (gross) in 2000 to 34 moves (gross) in 2001. However, the average waiting time for berthing of main line container vessels increased from 2.5 hours in 2000 to 3.2 hours in 2001, while the average berth stay increased from 15.9 hours to 17.8 hours.

A noteworthy development in the port sector was the declaration of the proposed Port of Hambantota as a port coming under the Port Authority Act No. 51 of 1979 with effect from 6 November, 2001. Bids were called to conduct a feasibility study on the project. Meanwhile, ADB approved a loan amounting US dollars 10 million for the detailed designs of the proposed South Port of Colombo.

The total number of employees working at the SLPA at end 2001 was 18,561. The number of employees, particularly non-technical employees, has gradually grown to this level during the past few years resulting in a drop in productivity per-worker. Over the years, the port has been used as a convenient source of employment. It has been indicated that the port could be efficiently operated with half the present workforce provided that port operations are rationally reorganised. Various institutional changes have been proposed to improve efficiency and productivity in SLPA. Corporatisation of the JCT, restructuring of port management, simplification of documentation procedures, voluntary retirement scheme for employees, skills development programmes and strengthening port security are among them.

### 5.7 Irrigation and Settlement Schemes

Expenditure incurred by the Irrigation Department on 17 locally funded projects during the year amounted to Rs.333 million. The 'Mau Ara' Project benefiting Moneragala and Hambantota districts accounted for 55 per cent of this expenditure.

Expenditure on the two major foreign funded projects, namely, the Hambantota Irrigation Rehabilitation Project and Welis Oya Diversion Project amounted to Rs.205 million in 2001.

During the year, the Irrigation Department implemented the policy of participatory irrigation management in major and medium schemes through the 'Waphaula' Programme. At present there are 188 schemes under this programme covering 80,000 hectares.

Government has incurred a substantial expenditure on the development of irrigation facilities but does not earn any revenue from this activity. Since the capital used in irrigation development with foreign assistance involves payment of interest and loan repayment, this method of operation is not sustainable in the long run. In addition, a free provision of water leads to wastage and the abuse of the systems. This emphasises the need to charge for water services from the users in order to ensure the long-term sustainability of the schemes.

During the year, 1,743 families were settled under different systems in the Mahaweli Development project. The majority of the settlements were in 'System C' (828), while 'System G' and 'System B' had 357 and 354 families settled, respectively under the Mahaweli Development Project, 98,310 families have been settled since 1976.

## 5.8 Special Programmes

### Housing

Despite the slowing down in the economy, it has been observed that the housing market was buoyant in 2001. However, there was a setback in public sector housing programmes. The supply of housing continued to expand along with active involvement of the private sector, improvements in the housing finance market, and a continuation of the public sector housing programme. It has been estimated that 104,653 housing loans were granted in 2001 by housing finance institutions, including some commercial banks, when compared with 92,394 in the previous year.

The demand for housing is increasing rapidly with population growth and urbanisation. The importance of private sector participation has been clearly recognised in meeting the demand for housing. In this respect, the government has offered very attractive incentive packages to both local and foreign investors. As a result, there have been a number of large-scale private sector initiated housing and township development projects. The Athurugiriya Millennium City with 1,575 housing units, and the Ekala Nivasipura housing project with 2,540 housing units are two examples. The government continued to provide direct assistance to low-income families to build or upgrade their houses, while private sector housing providers focused mainly on the housing requirements of middle and high-income families, particularly in the urban

sector. BOI offers attractive concessions to private investors who undertake construction of medium density residential development to increase the supply of affordable housing. In the meantime, the government continued to undertake special housing projects to relocate slum and shanty dwellers, thereby releasing prime urban lands for commercial purposes.

Public housing programmes focused on under-privileged community groups, including those families affected by civil strife. The housing finance institutions were strengthened to deliver housing credit to low-income families in the formal sector using their EPF balances as collateral. Concessionary loan schemes were further expanded for the benefit of Sri Lankan employees returning from overseas. The National Housing Development Authority (NHDA), the Ministry of Fisheries and Ocean Resources (MFOR) and the Plantation Housing and Social Welfare Trust (PHSWT) plays a major role in the provision of public sector housing. NHDA is responsible for the implementation of key state sector housing programmes, viz. the Janaudana Housing Programme, Urban Housing Programme, Estate Housing Programme and Disaster Housing Programme. The basic strategy in implementing these housing programmes is based on a self-help system where NHDA provides a maximum loan of Rs. 50,000 to a beneficiary to build or upgrade his own house. Housing programmes implemented by the NHDA slowed down in 2001 when compared with the previous year, mainly due to financial constraints. Total disbursements under NHDA programmes decreased by 56 per cent to Rs.602 million. Consequently, the number of housing units commenced during 2001 decreased by 32 per cent, while units completed decreased by 25 per cent. An investment by NHDA is partly financed by the recovery of previous loans. As the loan recovery rate was very low, at around 70 per cent, loanable funds available to NHDA were restricted.

MFOR continued the Diyawara Gammana housing programme for the benefit of fisher folk. During 2001, a total of 11 housing schemes with 1,329 housing units were completed under this programme at a cost of Rs.61 million. In addition, the Diyawarapura housing scheme was continued during 2001. PHSWT provides housing facilities to estate employees under the Plantation Development Support Programme (PDSP). In 2001, a total of 1,794 new housing units were completed while 318 units were upgraded under PDSP. Further, 5,446 new housing units and 1,139 upgrading units were under construction by end 2001. In addition, PDSP also provided water supply and sanitation facilities, health and welfare facilities to existing estate settlements. The total expenditure under this programme increased by 16 per cent to Rs.173 million in 2001.

Construction work of the Sustainable Township Programme (STP), which has been designed for occupants in under-served settlements in the Colombo City, was in progress in 2001 under the direction of Real Estate Exchange Ltd (REEL). The first phase of the Sahaspura

**TABLE 5.10**  
**Public Sector Housing Programme**

| Sub Programme                    | Units Commenced (No.) |               | Units Completed (No.) |               | Disbursements (Rs.Mn.) |            |
|----------------------------------|-----------------------|---------------|-----------------------|---------------|------------------------|------------|
|                                  | 2000                  | 2001(a)       | 2000                  | 2001(a)       | 2000                   | 2001(a)    |
| Janaudana Programme              | 7,043                 | 2,095         | 9,513                 | 5,212         | 201                    | 84         |
| Rural Housing Programme          |                       |               |                       |               |                        |            |
| Scattered Loan & Grant Programme | 19,008                | 16,493        | 22,625                | 19,326        | 413                    | 109        |
| Urban Housing Programme          |                       |               |                       |               |                        |            |
| Scattered Loan & Grant Programme | 3,423                 | 1,615         | 3,610                 | 2,230         | 63                     | 8          |
| Estate Housing Programme         | 1,670                 | 1,113         | 1,514                 | 1,192         | 38                     | 35         |
| Direct Construction Programme    | 474                   | 490           | 611                   | 1,226         | 614                    | 350        |
| Disaster Housing Programme       | 1,036                 | 492           | 1,346                 | 636           | 32                     | 16         |
| Fisheries Housing Programme      | 19                    |               | 292                   | 63            | 4                      | 0          |
| <b>Total</b>                     | <b>32,673</b>         | <b>22,298</b> | <b>39,511</b>         | <b>29,805</b> | <b>1,365</b>           | <b>602</b> |

(a) Provisional

Source : National Housing Development Authority

project at Borella, consisting of 687 housing units, was completed in 2001. As a result, a land area of 9 acres in extent was liberated for commercial activities.

### Urban Development

The development of urban infrastructure necessary for the smooth functioning of private and public institutions, as well as economic and social life of the community, has become a challenge in the face of rapid urbanisation, technological improvements and increasing needs. Although modernisation has been carried out from time to time, most urban centres in the country are experiencing inadequate economic and social infrastructure, environmental and waste disposal problems, urban poverty and unemployment. The Urban Development Authority (UDA) plays a crucial role in planning and executing urban development projects in the country.

It has been projected that by 2010, almost half of Sri Lanka's total population of 20 million would be living in urban areas. About 55 per cent of the population in Colombo live in areas with meagre support services, despite their important role in the urban economy. Sustainable urban development projects are therefore vital to boost economic and social life in Colombo as well as in other urban areas. One of the key obstacles to expanding urban services has been the lack of space. In this respect a project is in place to identify unproductive and vacant lands in the City of Colombo for expansion of urban services. With the long-term objective of developing the City of Colombo as a commercial centre, it has been planned to shift most administrative institutions out of Colombo as envisaged in the Colombo Metropolitan Regional Structure Plan (CMRSP). Several urban development projects have also been identified under the Colombo City Development Plan. Under this Plan the relocation of the Welikada prison, development of the Beira Lake, relocation of Manning market and Galle Face Green redevelopment were some of the projects implemented or designed during the year.

About 46 acres of prime land located at Borella could be released for more productive economic and social activities by shifting the Welikada prison complex to another site. The relocation of Manning market at Orugodawatte has been on the agenda for a long period. During 2001, fresh plans and designs for relocation of the Manning market were completed. Approximately 1,400 wholesale and retail outlets will benefit with more opportunities for growth and expansion under this project. Traffic congestion in Colombo is expected to be greatly reduced with this relocation. Strong commitment by all parties involved is necessary for the successful completion of these projects. The Galle Face Green redevelopment project was completed in 2001 at a cost of Rs.76 million and opened to the public in October 2001.

The main operational activities of UDA have been categorised under the construction of administrative, commercial and industrial complexes, town improvement projects, integrated projects and social and cultural projects. In addition, the UDA implemented several projects on behalf of clients and continued to maintain the Land Bank. The total expenditure on implementation of these programmes amounted to Rs.1,772 million in 2001. The sources of funding were the Consolidated Fund (66 per cent), UDA's own funds (21 per cent) and funds from other institutions (13 per cent).

Of the total investment of UDA, 54 per cent (Rs.958 million) was on projects undertaken on behalf of other client institutions. The construction of the Presidential Secretariat at Kotte (Rs.478 million), the Speaker's residence at Battaramulla (Rs.53 million), IT park at Malabe (Rs. 34 million), relocation of Manning market (Rs. 61 million) and Galle Face Green redevelopment project (Rs.76 million) were the major projects handled by the UDA in 2001. A major part of the construction work of the Speaker's residence was completed during 2001. Relocation of the Headquarters of the defence services was under consideration under the Sri Jayawardenapura Administrative

Capital Development Plan to release a large area of prime land in the heart of Colombo for commercial development. Approximately 93 acres of prime land is expected to be released under this project. It is important to maintain a balance between the development of major urban centres and peripheral urban centres, to reduce urbanisation, congestion, and unemployment and to lessen economic and social backwardness in the periphery. To address these issues, it has been planned to create at least one primary city and five secondary cities in every province based on regional development balanced growth criteria by 2010. Integrated urban development plans for Gampaha, Galle, Matara, Horana, Hambantota and Kegalle were completed in 2001. Detailed development plans have been prepared for Horana and Negombo growth centres under the CMRSP. UDA also implemented several projects such as low cost housing schemes and public servants' housing schemes under the town improvement project.\*

### Water Supply and Sanitation

According to various surveys it has been revealed that the proportion of households with access to safe drinking water is about 67 per cent and that only about 35 per cent have access to pipe borne water. The National Water Supply and Drainage Board (NWSDB) aims to expand water supply coverage to about 80 per cent by 2005 and to achieve universal coverage by 2010. In addition, a substantial reduction of non-revenue water, which is presently around 35 per cent, and a 24-hour supply of pipe borne water to all consumers by 2005 are the other major objectives of NWSDB. To achieve these goals, total investment needed upto 2010 has been estimated at Rs.85 billion. However, the government's investment in the water sector over this period has been estimated to be around Rs.45 billion, i.e., about half of the required investment. Therefore, in order to meet the shortfall in investments, alternative funding sources need to be explored.

The demand for drinking water is growing in line with population growth, urbanisation and the expansion of commercial and industrial activities. Water supply needs to be expanded to keep up with developments in other services, in order to meet the increasing demand as well as to meet currently unmet demand. Presently, pipe borne water is available to about one third of the households. A poor water supply heightens the risk of water borne diseases and leads to other public health hazards, while the smooth functioning of industrial and commercial sectors is also affected.

The NWSDB stands as the apex institution responsible for the development, distribution and maintenance of water supply in the country. There were 269 water supply schemes with 667,805 water connections under the purview of the NWSDB by end 2001. The total volume of water supplied by NWSDB increased by 3 per cent to 343 million cubic meters (MCM) in 2001 over the previous year. The number of new connections provided by the Board grew by 14 per cent to 86,640 in 2001.

The NWSDB implemented 46 upgrading and rehabilitation projects during the year. An additional population of 895,500 would benefit once these projects are completed. NWSDB is also responsible for the provision of sewerage facilities in high density areas, housing schemes and in industrial parks.

In 2001, the NWSDB invested a sum of Rs.3,896 million in the water supply sector an increase of 12 per cent over the previous year. Of the total investment, 74 per cent was on new projects, while the balance was on the rehabilitation of existing projects. Foreign funding agencies such as ADB, JBIC, IDA and KfW provided 56 per cent of the total investment on concessionary terms.

The Small Towns Water Supply Project (STWSP) is one of the major projects undertaken by the NWSDB with ADB assistance, to provide water supply and sanitation facilities to 47 small towns (population below 6,000) in Kalutara, Kegalle, Anuradhapura, Moneragala, Puttalam and Hambantota districts. It aims at obtaining maximum user participation in all aspects of the work carried out in order to ensure cost effectiveness and the sustainability of these projects. During the period under review, the construction of 6 sub projects commenced, while 20 sub projects were at the planning and design stage. The main objective of STWSP is to improve the health and well being of one million people living in those districts by improving water supply and sanitation facilities and by providing hygiene education.

The Towns South of Colombo Water Supply Project was in progress with financial assistance from JBIC. The total investment in this project was Rs.258 million in 2001. A population of 260,000 is expected to benefit once the project is completed. In addition, the Towns North of Colombo Water Supply Project funded by JBIC, the Nuwara Eliya Water Supply Augmentation Project funded by the Japanese government, the Ampara District Eastern Coastal Area Water Supply Project funded by the Australian government, the Greater Kandy Water Supply and Environmental Improvement Project funded by JBIC and the Kalu Ganga Water Supply Project funded by JBIC continued during 2001. Further, NWSDB executed a project aimed at reducing non-revenue water in Colombo. The project aims at reducing non-revenue water distribution in Colombo from the present level of around 40 per cent to 30 per cent by 2005. Under the project, approximately 40,000 families, who presently use stand-post water would be provided with house connections at a concessionary rate. The total project cost has been estimated at Rs.3,500 million.

The total revenue of NWSDB rose by 14 per cent to Rs.4,148 million in 2001. This increase in revenue was largely due to the expansion in the consumer network and the upward revision in water tariffs in January 2001. The tariff applicable to the domestic sector was raised by an average of 36 per cent while the tariff applicable to the



industrial and commercial sectors was raised by a lower rate of 17 per cent with effect from January 2001. The main objectives of the tariff revision were to reduce the existing cross subsidies in the tariff system, motivate people to conserve water by giving an economic value to water and to cover rising operating expenses. Meanwhile, the total expenditure of NWSDB rose by 21 per cent to Rs.4,140 million in 2001. Accordingly, NWSDB reported a net operating profit of Rs.8 million in 2001, in comparison to Rs.220 million in 2000.

In order to achieve targets set for the water sector, a large amount of capital investment and improvement in efficiency of water production and distribution, revenue collection, maintenance and management of water supply schemes will be needed. In this respect, it has been proposed to make use of private sector resources to expedite planned water projects and to better manage existing water projects. As an initial step, an institutional arrangement with an appropriate private sector partnership has been planned for implementation in the Greater Negombo area and the Kalutara to Galle coastal strip. This arrangement is considered as a pilot project to encourage private sector participation in the water sector. Feasibility studies on the two projects above were completed in 2001.

### Samurdhi Programme

The Samurdhi programme continued during the year providing relief to vulnerable households, while implementing various other projects such as the development of rural infrastructure, social security, rural banking, training and entrepreneur development, and self-employment schemes with the broad objective of alleviating poverty. According to the Department of Poor Relief, nearly 2 million families received direct benefits under the Samurdhi income supplementary programme in 2001. This is about a 3 per cent decrease when compared to the number of families recorded in 2000. The decline was mainly due to the removal of some ineligible families from the programme by changing the relief-card distribution system. However, the total outlay on this programme increased by 20 per cent to Rs. 11,910 million, primarily due to the substantial increase in the Samurdhi allowance from August 2000. In addition to the income supplementary programme, 168,965 families received assistance under the dry rations scheme for displaced families at a cost of Rs. 1,818 million. The total cost of the poor relief programme amounted to Rs. 13,826 million or about 4.6 per cent of government current expenditure in 2001.

The problems associated with targeting Samurdhi benefits have been widely discussed. Although about half the households in Sri Lanka receive Samurdhi benefits, there are a large number of poor households who have not been enrolled in the program, while there are ineligible families in the net. The original target, when the Samurdhi

programme commenced in 1995, was 1.2 million families. Various surveys and studies on poverty in the country have revealed that the incidence of poverty is less than 30 per cent. The Samurdhi administrators also recognise this fact and in 2001 various measures, including an empowerment programme were suggested to reduce the number of beneficiaries. However, these efforts were abandoned mainly for political reasons. Therefore, coherent policies and a committed effort are needed, together with a clear entry and exit mechanism, for the successful implementation of the national poverty, alleviation programme.

The Samurdhi Authority of Sri Lanka (SASL) and the Department of the Commissioner General of Samurdhi (DCGS) implemented several programmes with the objective of uplifting living conditions in underprivileged areas. Under the Samurdhi Rural Development Programme, over 2000 small-scale infrastructure projects were completed with community participation at a cost of Rs.170 million, under the purview of SASL. In addition, various agricultural, livestock development, marketing, small-scale industry development programmes were implemented by SASL. DCGS continued the management of the Samurdhi Social Security Fund. During 2001, a sum of Rs. 463 million was collected as premia while Rs.149 million was paid as compensation under the social security scheme. Meanwhile, total cumulative savings under the Samurdhi Compulsory Saving scheme grew by 17 per cent to Rs.7,383 million while voluntary group savings rose by 55 per cent to Rs 1,142 million at end 2001.

### 5.9 Environment

Maintaining an appropriate balance between environmental quality and long-term sustainable economic development has been recognised as the basic environmental policy in the country. This requires the use of natural resources for the benefit of mankind without disturbing the environmental balance, while taking measures for the conservation of same. In line with this basic policy, the Ministry of Environment and Natural Resources (MENR), the Central Environmental Authority (CEA) and other relevant government institutions continued their activities in relation to environmental conservation, monitoring, environment management and regulation. There are numerous non-governmental organisations (NGOs) playing an active role in environmental conservation, monitoring and conducting public awareness programmes.

MENR is primarily responsible for the management of the environment and natural resources and for formulating environmental policies at the national level. MENR drafted a new National Environment Policy in 2001, recognising that sustainable economic development can be achieved through integration of environmental concerns into the development process. The policy also emphasises the need for good governance and the importance of stakeholder participation in

**TABLE 5.11**  
**Samurधि Welfare Programme**  
**Number of Beneficiary Families and Value of Grants**

| Cash Grant<br>Amount (Rs.)                     | 1999             |               | 2000             |               | 2001 (a)         |               |
|--|------------------|---------------|------------------|---------------|------------------|---------------|
|  | No. of Families  | Value (Rs.Mn) | No. of Families  | Value (Rs.Mn) | No. of Families  | Value (Rs.Mn) |
| <b>Samurधि Income Supplementary Programme</b>  |                  |               |                  |               |                  |               |
| Rs. 1,000                                      | 12,043           | 145           | 10,516           | 126           | 8,968            | 108           |
| Rs. 500 (Rs. 700 with effect from August 2000) | 899,083          | 5,395         | 897,863          | 6,285         | 858,902          | 7,215         |
| Rs. 200 (Rs. 350 with effect from August 2000) | 329,588          | 791           | 359,211          | 1,132         | 363,752          | 1,528         |
| Rs. 100 (Rs. 250 with effect from August 2000) | 219,788          | 264           | 223,857          | 437           | 233,718          | 701           |
| Rs. 250 (Rs. 400 with effect from August 2000) | 527,009          | 1,581         | 521,956          | 1,957         | 487,991          | 2,342         |
| Rs. 125 (Rs. 140 with effect from August 2001) | 142              | 0.2           | 362              | 0.6           | 9,282            | 16            |
| <b>Total</b>                                   | <b>1,987,653</b> | <b>8,175</b>  | <b>2,013,685</b> | <b>9,938</b>  | <b>1,962,613</b> | <b>11,910</b> |
| <b>Dry Ration Programme</b>                    |                  |               |                  |               |                  |               |
| Rs. 336 -1260 (b)                              | 154,932          | 1,694         | 154,218          | 1,694         | 168,965          | 1,818         |
| <b>Nutrition Programme</b>                     |                  |               |                  |               |                  |               |
| Rs. 100 (Rs. 150 with effect from April 2000)  | 80,718           | 72            | 83,575           | 108           | 109,202          | 98            |
| <b>Grand Total</b>                             | <b>2,223,303</b> | <b>9,941</b>  | <b>2,251,478</b> | <b>11,730</b> | <b>2,240,780</b> | <b>13,826</b> |

(a) Provisional (b) As at end 2001

Source: Department of Poor Relief

the environment and natural resource management. During 2001, MENR also updated the National Environmental Action Plan covering the period 2002-2006.

MENR launched several environmental programmes in 2001. With a view to keeping inland water bodies clean, it continued three pilot projects, namely, the Kelani river, Meada Ela in Kandy and the Kalu Ganga under the 'Pavithra Ganga' project during the year, in association with the respective local government authorities. Under this project, priority is given to tree planting, mitigating the effect of sand mining, controlling municipal waste, controlling the discharge of sewage and industrial effluents and dumping saw dust, and enforcing the obtaining the environmental licences for industries located along the rivers. Considering the grave problem of solid waste disposal, especially in urban areas, MENR prepared plans and implemented pilot projects with a view to finding a permanent solution to this problem.

The use of market instruments for environmental management has been recognised as very effective, convenient and easy to implement. Accordingly, MENR engaged in developing certain such instruments in collaboration with the University of Peradeniya and the Department of Agriculture for controlling soil erosion, ground water management and waste management. MENR has taken steps to establish a biodiversity park at Oliyagankela in the Matara District in order to develop fragmented forest patches in many parts of the country to accommodate local and foreign visitors for research, educational purposes and recreation. In addition, MENR continued to co-ordinate international conventions such as the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basle Convention on the Control of Trans Boundary Movement of Hazardous Waste, the United Nations Convention on Combating Land Degradation and Desertification and the United Nations Framework Convention on Climate Change.

During 2001, MENR implemented several projects with foreign assistance to strengthen environmental conservation activities. It executed the Forest Resources Management Project funded by the ADB with a view to developing and manging forest resources with the participation of the community and other stakeholders. The Upper Watershed Management Project (UWMP), aimed at soil conservation through community participation, was also in progress in 2001.

CEA, as the major regulatory authority in the environment sector, was mainly involved in issuing Environment Impact Assessments (EIA) and Environment Protection Licences (EPL) and in environment monitoring and promotional activities. CEA processed 33 Initial Environment Examinations (IEE) and 19 Environment Impact Assessments (EIA) in 2001 in comparison to 28 IEE and 13 EIA in 2000. Further, it issued 585 new EPL in 2001, compared to 392 in 2000. In addition, 227 EPL were renewed in 2001. CEA continued to monitor the performance of industries in relation to discharge of effluents, emission of air, noise and wastewater, in order to determine compliance with environmental standards. Accordingly, CEA analysed / tested 589 effluent samples, 77 noise measurements and 4 ambient dust levels during 2001.

The ambient air quality monitoring station at the Fort Railway station was operated continuously and parameters such as sulphur dioxide, nitrogen dioxide, carbon monoxide and particular matter were monitored. CEA has found that air pollution in the City of Colombo is on the increase. CEA also continued monitoring major inland water bodies in the country, on a regular basis, to detect pollution trends. Accordingly, CEA tested 318 water samples in 2001, compared to 410 in 2000. Meanwhile, it received 997 complaints from the general public in connection with environment pollution in 2001, when compared to 1,081 in 2000.