# 5. ECONOMIC AND SOCIAL OVERHEADS

# 5.1 Overview

During 1999, several vital steps were taken to expand the supply and quality of economic and social infrastructure needed for accelerated economic growth. In the area of economic infrastructure, investment by both public and private sectors expanded significantly. Reflecting the government's commitment to rebuild and expand the infrastructure base of the country, public investment in economic infrastructure was maintained at 4.2 per cent of GDP. The level of investment is expected to reach 6.4 per cent of GDP in the year 2000. Government investment was mainly in water supply and sanitation, roads, housing and transport sectors in 1999. A firm commitment has been made to expedite the construction of proposed highways from Colombo to Matara, Katunayake and Kandy. Meanwhile, private sector participation in infrastructure services was further strengthened in 1999 with the commencement of the Queen Elizabeth Quay (QEQ) development project by South Asia Gateway Terminals (Pvt.) Ltd. (SAGT) at a cost of US dollars 240 million. This is the largest ever privately funded project commenced on a BOT basis. The re-fleeting programme of SriLankan Airlines also commenced in 1999 and a sum of US dollars 298 million was spent during the year. Private investment in other areas, particularly telecommunications, housing, gas and power expanded further. Private infrastructure projects attracted about 60 per cent of the foreign direct investment realised during 1999 under BOI facilities. Private sector involvement in the telecommunications, gas and civil aviation sectors has so far generated good results. Despite these improvements, however, the present level of investment in infrastructure is yet inadequate. Therefore, while the private sector is called upon to play a vital role, the public sector needs to undertake infrastructure projects in which the private sector is reluctant to participate. Public sector leadership is essential in large infrastructure projects such as roads, railroads, dams, water supply and port development. Along with rapid improvement in economic infrastructure, investment in human resources has also become a pressing need to improve labour productivity. In this respect, education and health sector reforms are being implemented.

The current strategy for improving the availability and quality of infrastructure encompasses construction of new infrastructure, rehabilitation and modification of existing facilities, institutional reforms, management reforms and privatisation. In line with this strategy, public investment in the power sector increased by 27 per cent to Rs. 15,282 million in 1999. The installed capacity of the Ceylon Electricity Board (CEB) was augmented by 3 per cent with the commissioning of a 40 MW thermal power plant at Sapugaskanda. However, the reliance on hydropower still remains high at 67 per cent, requiring further development of non-hydro power sources. As in the past, improvements in the passenger transport sector was moderate. Public and private sector bus fleets expanded slightly. Further unification of public sector passenger transportation was under consideration to improve the efficiency of the system. Steps were taken to augment the rolling stock of the Sri Lanka Railways (SLR). The operating loss of the SLR increased further, as fares have not been revised since 1996. The construction of the proposed expressways is expected to ease traffic congestion and improve access to several regions. Feasibility studies have been completed in respect of the Colombo - Katunayake and the Colombo - Matara expressways. Construction work on the Colombo -Katunayake expressway is to commence in 2000. Several projects were underway to expand the capacity of the Port of Colombo. However, demand for port services has been almost stagnant during past two years, mainly due to the competition from regional ports for transshipment. Port productivity improvement is key to attracting more shipping lines to Colombo. Investment in housing and water supply further expanded during 1999. Along with a decline in interest rates, the housing finance market has developed significantly in recent years. A record number of new water connections was provided in 1999. A high volume of nonrevenue water, mainly due to illegal connections and unattended leakages, has been a major problem in this sector.

TABLE 5.1 Government Investment in Infrastructure

| Year | Econ<br>Serv |             | Social S | ervices     | To      | al          |  |
|------|--------------|-------------|----------|-------------|---------|-------------|--|
|      | Rs. Mn.      | % of<br>GDP | As. Mn.  | % of<br>GDP | Rs, Mn. | % of<br>GDP |  |
| 1990 | 18,798       | 5.8         | 3,019    | 0.9         | 21,817  | 6.7         |  |
| 1991 | 26,022       | 7.0         | 2,964    | 0.8         | 28,986  | 7.8         |  |
| 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 | 32,461       | 3.6         | 11,552   | 1.3         | 44,033  | 4.9         |  |
| 1998 | 44,677       | 4.4         | 15,528   | 1.5         | 60,205  | 5.9         |  |
| 1999 | 46,902       | 4.2         | 17,493   | 1.6         | 64,395  | 5.8         |  |

Source: Central Bank of Sri Lanka.

Private sector participation in the power sector improved significantly in 1999. Three major private thermal power projects with a total capacity of 265 MW were approved and are to be commissioned within the next two years. This will significantly reduce the over-dependency on hydropower. There are a large number of small private sector hydropower projects with about 100 MW of capacity at various stages of construction. The robust growth seen in the telecommunications sector during the past 3 years continued in 1999. Fixed telephone lines increased by 29 per cent, while the mobile telephone network expanded by 47 per cent. The investments of Sri Lanka Telecom (SLT) increased by 31 per cent, while other private sector investments in telecommunications rose by 19 per cent in 1999. The QEQ development project, the implementation of which commenced in 1999, will increase the present container handling capacity of the Port of Colombo by 750,000 container units per year. The performance of SriLankan Airlines improved substantially under new management, and 3 new aircraft were added to the fleet during the year. Three large housing projects approved by the BOI commenced in 1999. The Bureau of Infrastructure Investment (BII) continued to facilitate private investment in infrastructure development, while the Private Sector Infrastructure Development Company Ltd. (PSIDC) provided financial assistance to private sector infrastructure projects.

General education reforms, implemented on a pilot basis in 1998, were carried out islandwide in 1999 and are progressing satisfactorily, although there were some problems relating to resource constraints and training. Teaching of English and computer education has been accorded high priority under the reforms. Implementation of university education reforms was rather slow due to lack of adequate response from the universities.

Implementation of health reforms was also slow, mainly due to financial constraints and non-adherence to a specific time frame. However, some progress has been made in the areas of developing one hospital in each district, institutional reforms and training.

#### 5.2 Health

Sri Lanka has achieved comparatively high health standards over the past few decades. The national health indicators of Sri Lanka are comparable with those of developed countries and are the best in South Asia. Despite these achievements, the health sector encountered new challenges due to frequent re-emergence of certain communicable diseases and the emergence of non-communicable diseases. Frequent out-breaks of malaria, dengue fever and Japanese encephalitis were seen in recent years. At the same time, Sri Lanka faces new patterns of health problems such as high incidence of cardio-vascular diseases, diabetes, disorders caused by environmental pollution, substance abuse, mental disorders and cancer, as well as health problems of an ageing population. Further, the health care needs of displaced people and victims of the war exert additional pressures on the health sector. Limited resources further constrained the effective functioning of health institutions. The resulting pressure on the public health sector to provide quality health care on an equitable basis could have been relieved to a certain extent by increased participation of the private sector. In order to address these difficulties, a health sector reform programme is being implemented in accordance with recommendations made by the Presidential Task Force on Health Reforms in 1997.

A Health Sector Reforms Implementation Unit (HSRIU) has been set up by government to co-ordinate the implementation of the proposed health reforms. After reviewing the recommendations made by the task force, five thrust areas have been selected for immediate implementation. These include the improvement of hospitals at district level, reforms in the organisational structure of health institutions, health promotion with emphasis on schools, strengthening of preventive health services with special emphasis on the disabled, elderly, victims of war, mental health and estate health services and the improvement of supportive services for health. Some progress has been made during 1999 in these core areas of reforms. Under the programme to improve at least one hospital in each district, the development of 2 Allopathic (western medicine) hospitals (at Polonnaruwa and Hambantota) and 2 Ayurvedic hospitals (Pallekele and Anuradhapura) was completed as pilot projects and the necessary equipment and facilities provided. However, lack of trained health personnel and funds has restricted the provision of further facilities to these hospitals. For example, only one fifth of the required amount of funds was received to equip the Polonnaruwa hospital. With respect to reforming the organisational structure of the public health sector, action was taken to establish provincial health authorities and a Commission for National Health. The functions of the Ministry of Health and the Department of Health were also re-defined. In addition, a Private Medical Institutions Bill was under preparation to encourage the private sector to maintain high standards in health care. Meanwhile, approval has been granted to set up 17 new private hospitals. Action has already been taken to appoint additional Medical Officers of Health (MOH) to each MOH division to be in charge of health programmes aimed at all vulnerable groups such as the disabled, war victims, elderly and in particular school children. The mental hospitals at Angoda, Mulleriyawa and Hendala were upgraded to improve mental health services. The construction of a mental health rehabilitation centre at Ridiyagama was also completed. Action has been taken to establish district level mental rehabilitation centres and psychiatric wards. Meanwhile, in order to improve the health conditions of estate workers, 18 estate hospitals were taken over by the government and manned with qualified health personnel 11.1

including doctors with university qualifications. In addition, 52 Tamil speaking Public Health Inspectors (PHIs) were appointed to serve in the estate sector. However, lack of adequate resources for the construction of buildings and the purchase of equipment hindered the effective operation of these hospitals.

Non-adherence to a strict time frame for implementation of the reforms and the inability to adopt a realistic financial plan to provide undisrupted financial resources have caused delays in the implementation of the proposed health sector reforms. The role to be played by provincial councils is also crucial for timely implementation of the reforms. As such, better co-ordination between provincial councils and the relevant central government institutions, awareness programmes among implementing agencies about the importance of health reforms and a committed financial plan would help expedite the implementation of these reforms.

The number of government hospitals providing Western medicine increased by 13 to 563, mainly as a result of the acquisition of estate hospitals during the year. Although the number of beds in these hospitals increased by 1,699 to 55,436, the number of beds per 1,000 population remained unchanged at 2.9 due to the increase in population. In addition to hospitals, there were 391 central dispensaries at end 1999. The total number of doctors attached to government hospitals increased to 5,957 by end 1999, from 5,612 at end 1998. Accordingly, the population per doctor decreased to 3,196 from 3,345 in 1998. The government has made a decision to absorb all medical graduates passing out from the universities, although the present cadre for doctors in government hospitals has almost been filled. Therefore, a roster system has been introduced to place these additional medical officers, ensuring a 24-hour availability of doctors in most hospitals. However, the number of nurses

# TABLE 5.2 Public Health Services

| ltern                                   | 1997     | 1998   | 1999 (a)   |
|---|----------|--------|------------|
| Hospitals                               | <u> </u> |        |            |
| (practicing Western Medicine) (No.)     | 547      | 550    | 563        |
| No. of Beds                             | 52,635   | 53,737 | 55,436     |
| Central Dispensaries(No.)               | 371 -    | 369    | 391        |
| Total No. of Doctors                    | 4,956    | 5,612  | 5,957      |
| Total No. of Asst.Medical Practitioners | 1,380    | 1,362  | 1,355      |
| Total No. of Ayurvedic Physicians       | 15,078   | 15,359 | 15,773     |
| Total No. of Nurses                     | 14,399   | 14,463 | 14,671     |
| Total No. of Attendants                 | 6;650    | 7,160  | 7,178      |
| Number of In-Patients('000)             | 3,453    | 3,797  | <b>n.a</b> |
| No. of Out - Patients ('000)            | 39,503   | 41,071 | n.a        |
| Total Health Expenditure (Rs:Mn)        | 12,135   | 14,419 | 15:671     |
| Current Expenditure (Rs.Mn)             | 9,5B1    | 10,089 | 11,215     |
| Capital Expenditure (Rs.Mn)             | 2,554    | 4,330  | 4,456      |

per 10,000 population remained unchanged at 7.7 during the year. There is a shortage of over 1,000 nursing staff in government hospitals. Private hospitals are also badly affected by the shortage of trained nurses. To address this issue, admissions to nursing colleges have been enhanced and a new nursing training college was established at Sri Jayawardenapura. The public sector health services also suffer from a shortage of qualified para-medical staff, such as pharmacists, laboratory technicians, radiographers, physiotherapists and ECG recordists. According to Ministry of Health sources, there were about 300 vacancies in these categories in 1999.

Total government expenditure on the health sector increased by 9 per cent to Rs.15,671 million in 1999. In relation to GDP, health expenditure remained unchanged at 1.4 per cent in 1999. Public investment in the health sector, at Rs.4,456 million showed a 3 per cent increase over the preceding year. As stated earlier, additional financial resources would be needed for effective implementation of the proposed reforms. In this context, innovative methods of revenue generation may be instituted within the existing framework, while continuing to provide free health care for the needy.

Malaria still remains a major health problem despite continuous efforts made by the health authorities to control the diseases. During 1999, malaria spread in the North Eastern and North Central provinces. The number of positive malaria cases reported in 1999 increased by 25 per cent to 265,401. However, the number of deaths due to malaria decreased by 13 to 102 in 1999. Several measures were taken to bring the situation under control. These included conducting mobile clinics, spraying chemicals against mosquito breeding and health education programmes. The health authorities expect to reduce the incidence of malaria substantially under the Roll Back Malaria Campaign (RBMC) with assistance from the World Health Organisation (WHO). An outbreak of measles was also reported in 1999. The out-break was brought under control mainly through public awareness programmes and by encouraging people to obtain the second dose of vaccine against measles. Moreover, with the objective of eradicating polio by the year 2000, a National Immunisation Day was held in 1999 for the fifth consecutive year. In order to facilitate public health education programmes in the provinces, a new Health Education Mobile Van Service, with necessary audio and video facilities, was introduced in all districts in 1999. Further, the Ministry of Health and Indigenous Medicine conducted 2 Suwa Udana programmes with the participation of health specialists under which preventive and curative health services were provided in under-served areas. Action was initiated to control the consumption of alcohol, drugs and tobacco under the recommendations of the Presidential Task Force on Alcohol, Drugs and Tobacco.

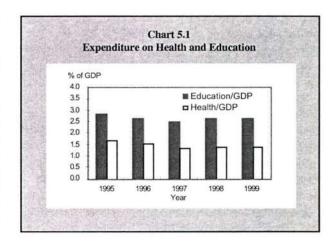
Several health infrastructure development projects were underway during 1999. The construction work on the National Nurses Training School at Sri Jayawardenapura at a cost of Rs.723 million was completed in 1999 and the first batch of 100 nursing students recruited. The construction work of the 390 bed building complex for the Lady Ridgeway Children's Hospital was nearing completion in 1999. The total cost of the project has been estimated at Rs.320 million. The Gampaha and Negombo hospital improvement projects, with financial assistance from the Republic of Korea, were also in progress during the year. Improvements to the Cardio-Thoracic Unit at the Kandy Teaching Hospital under a loan facility of Rs.170 million from the Government of France was also in progress during 1999. The Health and Population Project II, funded by the ADB to improve rural hospitals in the Anuradhapura, Kurunegala, Kalutara and Nuwara Eliya districts at a cost of US dollars 33 million, was in its final stages of completion. The IDA/World Bank funded Health Service Project was also in progress during 1999. The objectives of this project are eradication of malaria conducting awareness programmes on STD/AIDS, improvement of nutritional levels of children, non-communicable diseases control and health education. The total cost of the project is US dollars 22.6 million. Most of the foreign funded programmes have been linked to activities identified under the health sector reforms. Therefore, successful implementation of health reforms depends partly on the optimum utilisation of available foreign funds.

#### **Private Sector Health Care**

Private sector investment in the health sector has improved significantly following attractive fiscal incentives granted by the government in recent years. There were 17 private hospital projects approved under the BOI by end 1999. Of these, one hospital (Oasis Hospital) was opened in early 2000, while construction work on two other (Apollo Hospital and AME Hospital) was in progress. In addition, several existing private hospitals have commenced expansion projects. While the public sector health institutions concentrate mainly on providing Western and Avurvedic medicines, covering preventive, curative and rehabilitative health care, the private sector was engaged in providing Western, Ayurvedic, Unani, Sidda and Homeopathy systems of medicine covering mainly curative services. The demand for private sector health care has been rapidly increasing in recent years despite the availability of free health care facilities at government hospitals. The private sector catered to about 50 per cent of the curative health care needs.

In view of the increasing share of the private health care, the need for an effective regulatory framework was strongly felt in recent years. Initially, steps were taken to

establish a separate department under the MOH for the purposes of regulation, facilitation and guidance of private sector health services. In this respect, a new Act titled the Private Health Sector Development Act is to be presented in Parliament shortly to provide legal authority to the new department to carry out its functions. According to the latest estimates of the MOH, there are about 140 private health care institutions with a capacity of about 4,000 beds. In addition, there are about 800 qualified private medical practitioners. The Central Bank of Sri Lanka conducted a postal survey to collect basic statistics on private hospitals. Based on the information provided by 35 hospitals (of which 14 were in Colombo), the number of beds in private hospitals had increased marginally (by less than 2 per cent) to 1,529 during 1999. The number of in-patients had increased by 7 per cent to 81,152, while out-patients increased by 19 per cent to 1.3 million. On average, there were 5 permanent doctors and 34 qualified nurses per hospital. The total bed capacity of the 4 largest private hospitals in Colombo was 886. On average, each of these hospitals had 20 permanent doctors, 295 qualified nurses and 25 technical officers. Almost all hospitals, which responded to the questionnaire, were equipped with laboratory facilities, X-ray and ECG facilities. Most private hospitals stated that they were faced with an acute shortage of trained nurses and technical staff. According to the survey, lack of space and difficulties in obtaining bank loans were the major limitations to the further expansion of private hospital services.



# 5.3 Education

The most significant development in the field of education in 1999 was the islandwide implementation of education reforms. These reforms were meant to minimise the gap between educational attainment and labour market requirements by improving the quality of education, ensuring equity in resource allocation, and providing

adequate input and infrastructure facilities. During the year under review, the curricula and methodology of teaching were completely revised for several grades in the primary and junior secondary stages, while a compulsory General English paper was introduced at the GCE (A/L). New National Colleges of Education and Teacher Centres were also established. Further, computer education is also being strengthened in schools and steps were taken to establish sophisticated Computer Education Centres on a regional basis. The shortage of teaching materials and educational equipment due to resource constraints hindered the efficient implementation of reforms. At the same time, the utilisation of foreign funds was not at a satisfactory level. Delays and other shortcomings in the administration procedures also slowed down the implementation of reforms. Despite these shortcomings, the overall response to the general education reforms was satisfactory. In the higher education sector, the Wayamba University was established in 1999. The progress of university education reforms has been slow as there was much diversity in the responses to the proposals for university education reforms. The implementation of tertiary education reforms, based on the recommendations made by the Presidential Task Force on technical education and vocational training, was continued in 1999.

The total expenditure on education in 1999 was Rs. 29,294 million, an increase of 10 per cent when compared with 1998. The total expenditure on education as a percent of GDP was 2.6 per cent in 1999.

#### **General Education**

The number of government schools increased from 10,313 to 10,394 in 1999, while the student population almost remained unchanged at approximately 4,134,000. At end 1999, there was one school per 6.3 sq: km. with about 400 students per school. There were 188,340 teachers in government schools. Accordingly, the student teacher ratio stood as at 22 at end 1999. The majority of teachers (60 per cent) were trained teachers, while 27 per cent were graduate teachers. The balance consisted of certified teachers, uncertified teachers and volunteer teachers.

The general education reform programme designed in 1997 and implemented on a limited' scale in 1998 was extended to all schools in 1999. The implementation of Grade I reforms was introduced islandwide. The training required to implement these reforms was provided to teachers. The reforms at the junior secondary stage were implemented in Grades 6 and 9. New syllabi were developed and textbooks were re-written in line with reform objectives. The number of subjects offered by a student for the GCE (A/L) examination was reduced from four to three. In addition, a Common General Paper, which has been designed for testing students' awareness of current affairs, reasoning ability, problems solving ability and communication skills, is to be introduced as a part of the GCE (A/L) examination for those who seek admission to the universities. In September 1999, a compulsory new course on General English was introduced for GCE (A/L) students, though these marks will not be added to the aggregate marks for university admission. Regulations to make education compulsory have been enacted as a major objectives of the reform programme, since about 14 per cent of children in the age group 5-10 years presently do not attend schools. Village level committees have been organised to raise school attendance and monitor at the divisional level, while public awareness programmes are being carried out with a view to improving attendance.

Several projects have been introduced to improve the level of general education in the country. A project was launched to develop schools at divisional level to enhance the availability of educational opportunities, particularly for disadvantaged groups. At least one school in each Pradeshiya Sabha division will be developed, enabling rural children to have better school facilities in close proximity to their homes. A total of 325 schools have been selected for development under this project and most of these schools have been provided with the required facilities. The quality of education in these schools is to be improved by providing training programmes for teachers, better supervision and human resource development. One such programme has already been conducted for the principals of these schools.

The education reforms consider teacher education to be a crucial factor in improving the quality of education. There are approximately 12,000 untrained teachers in the system and it is proposed to train them as early as possible. A distance-training programme has been introduced for this purpose and 9,625 teachers have already been enrolled. The balance will be trained at Teachers Colleges and the backlog of untrained teachers is expected to be cleared by 2002. Further, a policy decision has been made not to recruit untrained teachers thereafter. The necessary training for new teachers will be provided in the National Colleges of Education. A comprehensive teacher re-training programme is to be implemented by setting up 84 Teacher Centres (TCs), of which 72 TCs had been set up by end 1999. The required funds for the teacher training programme were provided by the World Bank under the Teacher Education and Teacher Deployment project. Meanwhile, the National Institute of Education (NIE) conducted a number of courses for training teachers. A total of 30,704 teachers, in service advisers, principals and educational managers participated in these courses during 1999.

Several foreign funded projects were in progress to improve general education in the country. With a view to improving the quality, access, management and financing of education in Sri Lanka, the General Education Project 2 (GEP) is being implemented with the assistance of the

World Bank. The total expenditure incurred under this project was Rs. 116 million in 1999. The World Bank funded Teacher Education and Teacher Deployment Project, which aimes at improving the quality and coverage of education, was also in progress. A total of Rs.994 million was spent in 1999 under this project. Under the Secondary Education Development Project (SEDP) funded by the ADB, infrastructure facilities in 178 secondary schools and 14 teacher training colleges were developed. A new building complex for the Department of Examinations was built at a cost of Rs.365 million. Consultancy services were obtained for curriculum development, while foreign training was provided to principals and other education officials. The total cost incurred in 1999 under the SEDP was Rs. 664 million. Under Phase I of the Improvement of Junior Schools Project, funded by the Japanese Government, development work on 12 schools at a cost of Rs.830 million was commenced. The Department for International Development (DFID) in the United Kingdom continued to fund the Primary Mathematics Project, the Primary English Project and the Primary Education Planning Project.

Under the Development of Schools by Divisions Project, buildings in 393 schools have been developed at a total cost of Rs. 520 million. Under the National Schools Development Project, 185 new school buildings were constructed and 242 buildings were renovated at a cost of Rs. 555 million. In addition, the provincial councils were provided with Rs. 800 million for school infrastructure development in 1999. The government also spent Rs. 892 million on the provision of free school uniforms, Rs.686 million on school textbooks and Rs. 225 million on season tickets for school children during 1999.

In view of the importance of information technology (IT), the government initiated several measures to provide computer training to schoolchildren. A total of 1,795 computers and 601 printers were distributed among 601 schools during 1999. In addition, 12 Computer Resource Centers (CRCs) were set up in schools in 1999. A total of 132 computers were distributed among these CRCs. Further, the government, in its Budget for 2000, has proposed to grant special incentives to set up 50 institutes in information technology. It is expected to link these institutes to Information Technology Parks at Malambe, Kesbewa and Pugoda. Assistance will be provided by the Sri Lanka Institute for Information Technology (SLIIT) to these institutes. A large number of private sector institutes were also engaged in providing computer education.

The private sector continued to contribute to the provision of general education through private schools, international schools, private tutories and private pre-schools. The number of private schools stood at 77 at end 1999, with a student population of 93,445. International schools are also gaining popularity among the affluent. Statistics on international schools are not available as there is no regulatory framework to supervise these schools. The government is presently preparing legislation to create a regulatory framework. The government has also paid special attention to regularising pre-school education under education reforms. The central government is principally responsible for the formulation of policies, while implementation comes under the provincial councils. Accordingly, provincial councils have been advised to enact regulations on the establishment and maintenance of pre-

|         | TABLE 5.3      |                  |
|---------|----------------|------------------|
| General | and University | <b>Education</b> |

| ſtem                           | 1997       | 1998      | 1999 (a)  |
|--------------------------------|------------|-----------|-----------|
| General Education              |            |           |           |
| 1. Total Schools (No.)         | 10,983     | 10,947    | 5 11,031  |
| 1.1 Government Schools         | 10,358     | 10,313    | 10,394    |
| National Schools               | 249        | 270       | 306       |
| 1.2 Other Schools              | 625        | 634       | 637       |
| Private                        | 75         | 79        | 77        |
| Pirivenas                      | 550        | 555       | 560       |
| 2. Pupils (No.)                | 4,260,989  | 4,278,290 | 4.277,104 |
| 2.1 Government Schools         | 4,124,108  | 4,134,838 | 4,134,026 |
| 2.2 Other Schools              | 136,881    | 143,452   | 143,078   |
| Private                        | 85,890     | 91,536    | 93,445    |
| Pirivenas                      | 50,991     | 51,916    | 49,633    |
| 3. New Admissions              | 353,639(a) | 353,047   | 343,230   |
| 4. Teachers (No.)              | 187,539    | 196,305   | 196,726   |
| 4.1 Government Teachers        |            | 188,029   | 188.340   |
| 4.2 Others                     | 7,950      | 8,276     | 8,386     |
| 5. Pupil/Teacher Ratio         |            |           |           |
| (Government Schools)           | 23         | 22        | 22        |
| 6. Total Expenditure on        |            |           |           |
| Education (Rs. Million) (b)    | 22,349     | 26,694    | 29,294    |
| 6.1 Current                    | 17,757     | 20,582    | 21.642    |
| 6.2 Capital                    | 4,592      | 6,112     |           |
|                                | •          | -,        |           |
| University Education           |            |           |           |
| 1. Universities (No.)          | 12         | 12        | 13        |
| 2. Students (No.) (c)          | 36,578     | 38,594    | 40,174    |
| 3. Lecturers (No.) (d)         | 2,927      | 3,050     | 3,200     |
| 4. Number Graduating           | 6,738      | 6,758     | na 🕺      |
| 4.1. Arts and Oriental Studies | 2,513      | 2,518     | n.a       |
| 4.2. Commerce &                |            |           |           |
| Management Studies             | 1,219      | 1,180     | n.ă       |
| 4.3. Law                       | 182        | 171       | n a       |
| 4.4. Science                   | 882        | 1,110     | n.a       |
| 4.5. Engineering               | 496        | 551       | n.a       |
| 4.6. Medicine                  | 1,022      | 812       | na.       |
| 4.7. Dental Surgery            | 56         | 42        | ' n.a     |
| 4.8. Agriculture               | 201        | 250       | n.a       |
| 4.9. Veterinary Science        | 36         | 50        | n.a       |
| 4.10. Architecture             | 58         | 25        | 🕄 n.a     |
| 4.11 Quantity Surveying        | 72         | 49        | n a       |
| 5. New Admissions for Basic    |            |           |           |
| Degrees (No.)                  | 9,787      | 11,315    | 11,324    |
|                                |            |           |           |

Sources: Ministry of Education and Higher Education University Grants Commission Central Bank of Sri Lanka

(a) Provisional

(b) Includes government expenditure on higher education

(c) Excluding the Open University of Sri Lanka

(d) At the beginning of the year.

schools. A pre-school curriculum has been prepared and the necessary training for teachers is being provided. A Child Study Centre has been set up at the Open University of Sri Lanka to undertake research in early childhood care and development and to train teachers.

Based on the information provided, the on-going general education reforms have progressed satisfactorily, despite some drawbacks in implementation. Continuous awareness programmes and discussions may be needed to educate parents and students, as well as the general public to eliminate any misperceptions about the reforms. At the implementation level, the availability and fair distribution of resources, provision of teaching material and rational teacher deployment need to be ensured. Teacher deployment policies should be rationalised and implemented without undue interference, ensuring that rural under-privileged schools are staffed with the required number of teachers. An incentive scheme has already been proposed by the Ministry of Education and Higher Education to encourage teachers to work in less-favored areas. A political consensus on education reforms is extremely important as the success and the sustainability of education reforms depend on the continuity of these reforms.

# Higher Education

There were 13 national universities in the country including the Wayamba University of Sri Lanka, which opened in August 1999. New enrollments in universities in 1999 were 11,324. This accounts for only about 15 per cent of the students who satisfied the minimum requirements for university entrance and 8 per cent of the number of students who sat for the GCE (A/L) examination in 1998. Some universities offered external degree courses for students who wished to pursue higher studies. Admissions to postgraduate institutions indicated an increasing trend as many graduates are now seeking higher qualifications. There were 6 postgraduate institutes in the country by end 1999. In addition, there were 5 other higher education institutes, namely the Institute of Aesthetic Studies, Institute of Computer Technology, Institute of Indigenous Medicine, Gampaha Wickramarachchi Ayurveda Institute and Institute of Workers' Education. Meanwhile, the Open University of Sri Lanka (OUSL) had 7,604 new admissions in 1999. The total student population in the OUSL was 18,495 at end 1999. There were 10 degree courses and 31 diploma courses at the OUSL. A total of 979 students graduated from the OUSL in 1999. Several private sector institutions have also commenced higher education programmes in collaboration with foreign universities. These institutions have designed their courses and evaluation methods in accordance with the standards set by their foreign counterparts. Many higher education programmes conducted by the private sector are in the fields of information technology, commerce and business administration.

Meanwhile, due to the continued efforts made by the University Grants Commission (UGC) and the respective universities, the backlog which arose as a result of the longterm closure of universities during 1987-89, had been cleared at Moratuwa, Sabaragamuwa, Kelaniya (except the medical faculty), Jaffna, Eastern and South Eastern universities. A total of 5,700 university students received Mahapola scholarships in 1999 indicating a 2 per cent increase over 1998. Government bursaries, ranging from Rs. 1,150 to Rs. 1,300 per month, were paid to students who were not eligible for Mahapola scholarships.

The current university education reforms focus primarily on expansion of university education, curricula reform, quality assurance, staff development, career guidance, counseling and finance. With the establishment of the Wayamba University, the number of new admissions to universities will be expanded. All universities have initiated action to reform existing curricula to accommodate a modular course unit system. This provides students with greater flexibility in degree programmes and a wider choice of courses. The current end-of-course evaluation system is to be replaced with a continuous assessment system. The implementation of these changes has already commenced in some universities, while others are at various stages of the planning and implementation process.

Under the reforms, all new recruits to the academic staff are required to go through an Induction Course and Staff Development Centres (SDCs) are being established for this purpose. The universities of Colombo, Peradeniya, Kelaniya, Jaffna, Sabaragamuwa and Sri Jayawardanapura have already set up their SDCs. In addition, these six universities have already set up Career Guidance Units (CGUs) to link students with the private sector to improve their employment prospects.

Several projects geared to develop the infrastructure for higher education are being implemented. The main emphasis was on developing hostel facilities in universities with a view to providing accommodation to about 75 per cent of the student population by end 2000. The UGC set up a planning division and is in the process of preparing a corporate plan for all universities. Accordingly, all universities have been advised to set up their own planning units and prepare overall corporate plans.

The basic responsibility for adopting reforms in university education falls on the universities themselves. Therefore, the role of university authorities and academic and non-academic staff would be crucial for the successful implementation of reforms. Students are also required to adjust their learning habits and methods in line with the new changes. The post-graduate sector will also be more demand oriented in the future. Therefore, the scope and quality of postgraduate programmes should be diversified by incorporating modern courses. At the same time, university-industry links need to be strengthened to pursue advanced applied research. In order to improve the quality of higher education, Sri Lankan universities would be linked with foreign universities, which will help improve the quality of the academic staff as well as the skills of the students. Student exchange programmes are also to be introduced with a view to exposing students to experience in foreign universities.

#### **Technical Education and Vocational Training**

The importance of the Technical Education and Vocational Training (TEVT) sub-sector has been gradually increasing, along with the current developments in the labour market. The Presidential Task Force (PTF) on TEVT has proposed that the existing training system should be more demand oriented and promote training with private sector participation. The gradual elimination of the government's intervention in the TEVT and limitation to the role of a regulator has also been proposed. Several measures were taken by the government in 1999 towards the implementation of these reforms.

The Tertiary and Vocational Education Commission (TVEC), the apex policy setting body in the TEVT sector, took a number of measures for the systematic development of the sector. The commission has prepared and published Vocational Education and Training (VET) plans for five priority industry sectors namely, gems and jewellery, construction, printing, textiles and garments and hotel and tourism. The government provided Rs.50 million to TVEC to promote skills training in private sector industrial establishments. The TVEC assisted 33 companies in order to expand and upgrade their training facilities. It also took initiatives to publish a Labour Market Information Bulletin on a regular basis.

The Department of Technical Education and Training (DTET), being a major provider of technical education and vocational training in the public sector, extended its services through 36 technical colleges located in the districts. The total number of students enrolled for various courses conducted at technical colleges was 16,170 as at end 1999. Meanwhile, the Sri Lanka Institute of Advance Technical Education (SLIATE) conducted higher national and diploma level courses in engineering, accountancy, commerce and agriculture. The total intake of students to this institute in 1999 was 2,839. The Vocational Training Authority (VTA), with most of its training facilities concentrated in rural areas, enrolled 21,092 students for different courses in 1999. The VTA expanded its training facilities by establishing 36 new rural vocational training centres and 6 special vocational training centres in 1999. A total of 20,118 students were enrolled with National Apprentice and Industrial Training Authority (NAITA) for about 180 courses, in both their institutes and public/private sector establishments as special, craft and situational apprentices. The National Institute of Technical Education (NITE) was re-established as an autonomous institute in 1999 with the main objective of teacher training and curriculum development to fulfill the needs of the TEVT sector.

In accordance with the recommendations made by the PTF, the government formulated a skills development project covering a period of five years, commencing from 2000. The financing for the project, amounting to US dollars 36 million, would be provided by ADB, government and other international funding agencies. A skills development fund was also established by the government in 1999 with a contribution of Rs.100 million.

The government has identified the importance of developing the TEVT sector in line with the general education and higher education sectors. In the context of the increasing demand for skilled labour in the domestic market as well as in foreign markets, it is important to expand the reforms in this sector. In the meantime, the private sector should be encouraged to undertake more vocational training programmes for prospective students.

### 5.4 Communications Services

#### **Telecommunications**

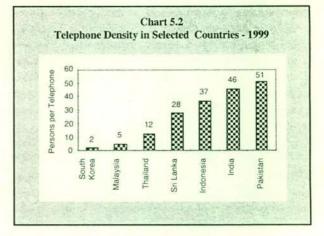
The telecommunications sector, which has shown significant improvement in recent years, progressed satisfactorily in 1999 in terms of network expansion, investment, private sector participation and effective regulation. The telecommunication sector is expanding rapidly, not only because of its importance in the present day economy, but also due to advances in telecommunications technology, cost effectiveness and healthy competition. The expansion in the telecommunications sector has provided impetus the growth of Information Technology and for the development of innovative products such as Internet, e-mail, e-finance, ecommerce and others, which accelerate economic activity. In addition, customer friendly, computer driven, cost effective integrated banking facilities are being introduced even in rural areas using telecommunications infrastructure. The export sector benefits largely due to availability of timely information on market trends. The benefit of improved telecommunications services has penetrated even into the informal sector. The telecommunications sector in Sri Lanka improved rapidly, particularly after the restructuring of the telecommunications sector and subsequent privatisation of Sri Lanka Telecom Ltd (SLT) in 1997. The fixed telephone lines (SLT main lines and wireless telephones) nearly doubled to 671,916 during 1997-99 while the cellular mobile telephones also more than doubled to 256,665 during the same period. The telecommunication sector of Sri Lanka is considered as the most deregulated telecommunications sector in South Asia.

The government expects to diversify the ownership of SLT further by disposing of 40 per cent of its 61.5 per cent holdings in SLT in year 2000. A lead manager has already been appointed to advise the government on marketing these shares.

The SLT recorded significant improvements in network expansion and provision of additional telecommunications services in 1999. The switching capacity of the SLT network was augmented by 42 per cent to 769,768 during 1999. Approximately one fourth of this increase came from regional telecommunication facilities. The total number of direct exchange lines provided by the SLT grew by 27 per cent (133,709 new telephone lines) to 580,199 by end 1999. The number of subscribers in the regions increased by 38 per cent to 297,574, while in the Colombo Metropolitan area, there was an increase of 18 per cent to 282,625. Total international circuits increased by 8 per cent to 2,321, while the number of subscribers for International Direct Dialing (IDD) facilities increased by 10 per cent to 47,568 during 1999. However, as the demand for SLT telephones expanded faster than the supply, especially outside the Colombo Metropolitan area, the registered applicants on the waiting list rose by 5 per cent to 236,225 during the year. Nevertheless, the waiting time has declined considerably, particularly in the Colombo Metropolitan area, during the past few years. The telephone density (telephones per 100 persons) improved to 3.05 in 1999 from 2.43 in 1998. However, telephone density in the regions still remains low at 1.80, whereas in the Colombo Metropolitan area it was 11.15.

The efficiency of the entire telecommunications network improved significantly with the expansion of network capacities. The fault rate per 100 telephones per annum dropped to 169 in 1999 from 192 in 1995. The call completion rate, although still high, stood at 41 per cent in 1999. Worker productivity at SLT has also improved. The number of telephones per employee increased to 66 in 1999 from 55 in 1998, while revenue per employee increased to Rs.2.2 million in 1999 from Rs. 2 million in 1998.

SLT introduced several new services in 1999. Among these was the issuing of itemised bills on request, for a nominal fee, for customers in the Colombo metropolitan area with a view to improving transparency in the billing system. The SLT subscribers in the Colombo metropolitan area were also provided with ISDN (Integrated Services Digital Network) facility where simultaneous transmission and reception of voice/fax/data and images through a single 2 wire telephone line is made possible. Currently, the international ISDN service which is available between Sri Lanka and the United Kingdom is to be and would be extended to other countries in the future. The SLT also introduced a mobile satellite earth station called "Satellite



News Gathering Flyway' (SNGF) in 1999. The SNGF station could be used by media organisations to cover news and other special events and link them instantaneously to anywhere in the world through satellite. In addition, the SLT operates a network of 2,318 public pay phones and provided services to 13,774 Internet and e-mail subscribers as at end 1999. The SLT had provided 407 domestic leased circuits and 41 international leased circuits by end 1999.

Total investment by the SLT rose by 31 per cent to Rs. 14,992 million in 1999. Of the total investment, about 35 per cent was from foreign sources. SLT is currently implementing a number of major telecommunications. projects with assistance from donors such as the Japan Bank for International Corporations (JBIC), French Protocol (FP), Swedish International Development Agency (SIDA) and Economic Development Co-operation Fund (EDCF) of Korea. The Regional Telecommunications Development Project I (RTDP I) was in progress to provide new connections and connect 15 Secondary Switching Centres (SSC) with an optical fiber ring in Kandy, Matale, Kalutara and Hatton areas. The cost of the project has been estimated at Rs.3,466 million. The Telecommunications Network Expansion Project I (TNEP I) was also in progress to develop the telecommunications infrastructure in the Colombo metropolitan area. The estimated investment for this project is Rs.5,920 million. The '150,000 Line Telecommunications Development Project' (150K project), which is being implemented by Sri Lanka Telecommunication Services Ltd. (SLTS), a subsidiary of SLT, continued in 1999. The 150K project is aimed at improving the telecommunications infrastructure in townships and rural areas covering almost all the provinces. The project was commenced in 1996, and by end 1999, about 220,535 exchange lines and 296,735 main cable pairs have been added to the network. During 1999, a total of 30 exchanges with a total capacity of 127,161 lines were commissioned. In addition, the traffic carrying capacity of the network too has been augmented to cater to the expanding market.

|                            | elivery Areas (No) 6,729 6,729   tost Offices (No) 4,313 4,362   Public 4,034 4,036   Private 216 250   Rural Agency Post Offices 63 76   rea Served by a Post Office (Sq.Km) 15.3 15.0   oputation Served by a Post Office 4,326 4,304 |         |         | Percentage Change |       |  |
|----------------------------|---|---------|---------|-------------------|-------|--|
| iterr                      |   |         | 1998    | 1999(a)           | 1998  | 1999 (a)   |
| 1. Postal Services         |   |         |         |                   |       |  |
| Delivery Areas (No)        |   | 6,729   | 6,729   | 6,729             | 0.0   | <b>ن ن</b> ه ک   |
| Post Offices (No)          |   | 4,313   | 4,362   | 4,437             | 1.1   | 7 1.7 m  |
| Public                     |   | 4,034   | 4,036   | 4,040             | 0.0   | <b>7</b> *3 0.1  |
| Private                    |   | 216     | 250     | - 297             | 15.7  | 18.8   |
| Rural Agency Post Offic    | æs  | 63      | 76      | 100               | 20.6  | 31.6   |
| Area Served by a Post Off  | ice (Sq.Km)   | 15.3    | 15.0    | 14.8              | -2.0  | <b>`</b> -13   |
| Population Served by a Po  | ost Office  | 4,326   | 4,304   | 4,338             | -0.5  | G to 0 8   |
| Letters per Inhabitant     |   | 24      | 23      | 24                | -4.2  | 22   |
| 2. Telecommunications Serv | ices  |         |         |                   |       |  |
| 2.1 Sri Lanka Telecom Li   | d. (SLTL)   |         |         |                   |       | re ser contra de la contra de |
| No. of Telephone Line      | es in Service (No.)   | 315,241 | 455,598 | 580,199           | 44.5  | 27.3   |
| New Telephone Conr         | ections given(No.)  | 72,457  | 143,075 | 133,709           | 97.5  | -6.5   |
| Applicants on Waiting      | List (No.)  | 284,876 | 224,411 | 236,225           | -21.2 | 5.3  |
| Expressed Demand f         | or Telephones (No.)   | 600,117 | 680,009 | 816,424           | 13.3  | 20.1   |
| Telephone Density (1       | elephones per 100 persons)  | 1.69    | 2.43    | 3.05 US           | 43.8  | 25.5   |
| 2.2 Other Private Sector   |   |         |         | C.                |       |  |
| Cellular Phones            |   |         |         |                   |       |  |
| Operators (No.)            |   | 4       | 4       | 4                 | 0.0   | 0.0  |
| Subscribers (No.)          |   | 114,888 | 174,202 | 256,665           | 51.6  | 47.3   |
| Total Cumulative I         | nvestment ( Rs. Mn.)  | 6,870   | 8,842   | 9,941             | 28.7  | 12.4   |
| Public Pay Phones          | ·   |         |         |                   |       |  |
| Operators (No.)            |   | 4       | 6       | <b>6</b>          | 50.0  | 0.0  |
| Subscribers (No.)          | -   | 2,571   | 4,761   | 5,799             | 85.2  | 21.8   |
| Total Cumulative I         | nvestment ( Rs. Mn.)  | 718     | 1,064   | 1,084             | 48.2  | P 19   |
| Radio Paging Service       | 8   |         |         |                   |       | The second   |
| Operators (No.)            |   | 5       | 5       | 4                 | 0.0   | -20.0 6  |
| · Subscribers (No.)        |   | 10,829  | 10,511  | 10,300            | -2.9  | -2.0   |
| Total Cumulative I         | nvestment ( Rs. Mn.)  | 222     | 222     | 222               | 0.0   | a 0.0  |
| Data Communication         | Services  |         |         |                   |       |  |
| Operators (No.)            |   | 8       | 10      |                   | 25.0  | 70.0   |
| Subscribers (No.)          |   | 11,745  | 20,769  | 26,968            | 77.0  | 29.7   |
| Total Cumulative I         | nvestment ( Rs. Mn.)  | 665     | 768     | 854               | 15.5  | 11.2   |
| Wireless Local Loop        | Telephones  |         |         |                   |       |  |
| Operators (No.)            |   | 2       | 2       | 2                 | 0.0   | `0.0   |
| Subscribers (No.)          |   | 26,381  | 67,931  | 91,717            | 157.5 | ूर्टू <b>35.0</b> े  |
|                            | nvestment ( Rs. Mn.)  | 6,796   | 9,291   | 12,762            | 36.7  | 37,4   |

TABLE 5.4 Growth of Postal and Telecommunications Services

(a) Provisional

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

The total revenue of the SLT increased by 9 per cent to Rs. 18,574 million in 1999. The growth in revenue is largely attributable to the increase in the number of connections given during the year and to the upward revision of the telephone tariff with effect from June 1999. The main objective of the tariff revision was to rationalise the domestic and international call charges. Accordingly, international call charges were reduced by about 8 per cent, while domestic call charges were raised from Rs.1.65 per unit to Rs.2.25 per unit, but applicable only to those who consume more than 500 units per month. However, domestic telephone charges applicable for calls during the discount period were significantly reduced to as low as 12 cents per minute, particularly for the benefit of Internet users. Meanwhile, the operating cost of SLT rose by 8 per cent to Rs.13,825 million. With these developments, the operating profit of SLT increased by 7 per cent to Rs.

2,964 million during 1999. The permanent labour force of SLT was 8,349 at end 1999.

Telecommunications services provided by the private sector also improved substantially during 1999. The supply of cellular telephone services, public pay phones, radio paging services, data communication services and wireless local loop (WLL) telephone services is dominated by the private sector. The number of private operators engaged in providing various telecommunications services rose from 26 to 32 from 1998 to 1999. The total subscriber network for private telecommunications services, excluding public pay phones, expanded sharply by 41 per cent to 385,640 during the year. The cumulative investment in the private telecommunications sector grew by 19 per cent to Rs.23,962 million in 1999. The number of subscribers for cellular telephones grew by 47 per cent to 256,655 during 1999 following the 52 per cent increase in 1998. The total investment in this sector grew further by 2 per cent to Rs.9,041 million by end 1999. The subscriber network for WLL telephones rose by a further 35 per cent to 91,717 after remarkable growth in 1998. The total investment in this sector too grew by 37 per cent to Rs.12,762 million by end 1999. When both SLT main line telephones and WLL telephones are taken together, telephone density (telephones per 100 persons) improved to 3.05 by end 1999. The number of public pay phone booths installed by 5 companies (including SLT) further expanded by 22 per cent to 5,799 by end of the year. Data communication services grew rapidly along with the expansion of banking, finance and commerce as well as the rapid expansion of e-mail and Internet users. The total number of subscribers for data communication services increased by 30 per cent to 26,968, of which, 25,014 were e-mail and Internet subscribers. Meanwhile, the number of subscribers for radio paging services declined by 2 per cent during 1999. Total employment in the private telecommunications sector increased by 14 per cent to 2.332 during 1999.

# **Postal Services**

In view of changing needs of society and growing competition in the communication sector, government proposed a far reaching postal sector reform programme with assistance from the Universal Postal Union and the World Bank. Under the proposed programme, the Department of Posts is expected to be restructured as a more dynamic and independent entity operating on commercial principles. In addition, other activities relating to network rehabilitation, institutional development and operational improvement will also be undertaken under the project. The total čost of the programme has been estimated at US dollars 46 million of which US dollars 37 million will be provided by the World Bank. As a pilot project, 3 model post offices with modern facilities were established at Matara, the World Trade Centre and Dehiwala.

The postal services showed a moderate expansion during 1999, in terms of network expansion, private sector participation and improvement in value added services. The post office network expanded by 2 per cent to 4,437 post offices in 1999. This expansion was mainly reflected in the increase in Private Agency Post Offices (PAPO) by 47 and Rural Agency Post Offices (RAPO) by 24 during the year. The number of main post offices rose to 586 while the number of sub-post offices remained unchanged at 3,454. The RAPOs, which were introduced in 1996, are gaining in popularity especially in the rural and estate sectors. The area served by a post office dropped marginally to 14.8 sq. kms. in 1999, while the population served by a post office rose slightly to 4,338. The average number of letters per inhabitant handled by the Department of Post increased by 2 per cent to 23.5 during 1999.

With a view to improving accessibility, some activities of the Postal Department have been decentralised. Accordingly, two new branches of the foreign parcels unit were established in Kandy and Matara. In order to expedite the delivery of letters, the postal services in the City of Colombo, operated by the Central Mail Exchange, has been decentralised to the Borella, Kotahena, Slave Island, Wellawatte and Havelock Town post offices. Meanwhile, the Philatelic Bureau extended its services to Kandy, Matara, Dehiwala and the World Trade Centre post offices.

The value added services provided by the Postal Department were further improved during the year. The Post Fax service and the Fax-Money Order service were further extended and by end 1999 there were 189 post offices with those facilities. The Department of Posts has planned to provide e-mail services through post offices. E-mail services have already been provided to the three modernised post offices and the department intends to extend this facility to 56 post offices in the near future. The International Express Mail Service (EMS) and Local Speed Post Service also continued to expand during 1999. In terms of the number of articles handled, the EMS service expanded by 12 per cent while the Speed Post grew by 25 per cent in 1999. There is a customer preference for high speed communication services at a higher price. The Department of Posts also implemented a programme to provide telephone facilities to sub-post offices. During 1999, telephone facilities were provided to 177 sub-post offices.

The total revenue of the Department of Posts grew by 18 per cent to Rs.1,904 million during 1999 mainly due to the revision of postal charges. The total operating expenditure of the department amounted to Rs.. 2,116 million. Accordingly, the Department of Posts recorded an operating loss of Rs. 212 million in 1999.

# 5.5 Energy

The favorable energy scenario that prevailed during the first half of 1999, became unstable during the latter part of 1999. Relatively higher water levels in hydro reservoirs prompted low cost hydro power generation at the beginning of the year. The water storage in reservoirs which was high at 67 per cent, increased to 89 per cent by end June 1999, enabling the Ceylon Electricity Board (CEB) to meet 69 per cent of the demand from hydro sources during the first half of 1999. However, during the latter part of 1999, water storage in the reservoirs dropped to levels substantially below normal due to the low incidence of rainfall in the catchment areas. This situation compelled the CEB to switch on expensive thermal power plants and resort to other short-term measures to avert any power shortage. During 1999, the thermal power capacity of the CEB further increased by 11 per cent reducing hydro dependency to 67 per cent. Electricity generation grew by 9 per cent, while demand for electricity rose by 7 per cent, a lower rate compared to the previous year. With regard to petroleum products, the average price of crude oil at US dollars 14.40 per barrel during the first half of 1999 (with the lowest price of about US dollars 10 per barrel in January 1999) increased sharply to about US dollars 25 per barrel by the end of the year. Under these circumstances, the financial viability of the Ceylon Petroleum Corporation (CPC) was at risk as local selling prices of petroleum products remained unchanged during 1999, while the demand for major petroleum products expanded by about 9 per cent.

## Electricity

The total installed capacity of electricity under both CEB and Independent Power Producers (IPP) stood at 1,691 MW, which comprised 1,143 MW of hydro-power, 545 MW of thermal power and 3 MW of wind power. The thermal power capacity of the CEB expanded by 11 per cent due to the commissioning of the 40 MW Sapugaskanda second diesel power plant in October 1999 and the installation of a 8 MW diesel power plant at Chunnakkam in March 1999. The wind power plant (3 MW) installed at Hambantota commenced power generation in March 1999. Although the private sector thermal power capacity remained unchanged at 92 MW, the private small hydro power capacity increased by 4 MW during 1999. These developments resulted in a further drop of hydro dependency to 67 per cent by end 1999.

The total power generation, inclusive of self generation, increased by 9 per cent to 6,184 GWh in 1999 compared with a 10 per cent growth in the preceding year. The IPP's share in total power generation was about 8 per cent. Hydro-power generation by the CEB rose by 6 per cent when compared to a 14 per cent growth in 1998. Hydro power generation was substantially higher during the

| TABLE 5.5                    |     |
|------------------------------|-----|
| Performance of the Power Sec | tor |

| ltem                        | Unit | 1997       | 1998  |       | Perce | ntage Change  |
|-----------------------------|------|------------|-------|-------|-------|---|
| HGIII                       | Onic | 1307       | 1930  |       | 1998  | 1999(a) 👫   |
| Available Capacity          | MW   | 1,595      | 1,636 | 1,691 | 3     | 3   |
| Installed Capacity          |      | 1.575      | 1,636 | 1,691 | Å     | 3.  |
| CEB - Hydro                 |      | 1,137      | 1,137 | 1,137 | ō     | <b>.</b>  |
| Thermal                     | **   | 405        | 405   | 453   | ŏ     | 19  |
| Wind                        | **   | 400        | 400   | 3     | U U   |   |
| vyinq                       | **   | -          | -     |       | •     |   |
| Private - Hydro             | ,,   | 2.0        | 2.0   | - 6.0 | 0     | 200   |
| Thermal                     |      | 31.0       | 92.0  | 92.0  | 197   | 1000 C  |
| 1,000002                    |      |            | 02.0  |       |       |   |
| Hired Privale Power         |      | 20         | •     |       | -     |   |
|                             |      |            |       |       |       |   |
| Units Generated             | GWh  | 5,145      | 5,683 | 6,184 | 10    | 9   |
|                             |      |            |       |       |       |   |
| CEB - Hydro                 | **   | 3,443      | 3,909 | 4,152 | 14    | <u> </u>  |
| Thermal                     |      | 1,052      | 1,246 | 1,396 | 18    |   |
| Wind                        |      | -          | •     | 3 🔹   | -     |   |
|                             |      |            |       |       |       |   |
| Private - Hydro             | **   | 4          | 6     | 18    | 56    | 184   |
| Thermal                     | **   | 13         | 390   | 507   | 2,902 | 30  |
|                             |      |            |       |       |       |   |
| Hired Private Power         | **   | 398        | 18    |       | -96   |   |
| Self Generation             |      | 235        | 114   | 108   | -51   | 5   |
| Total Sales                 |      | 4,039      | 4,521 | 4,809 | 12    | <b>B</b>  |
| Domestic                    |      | 1,213      | 1,378 | 1,555 | 14    |   |
|                             | 14   |            |       |       | 13    | 10. ja 44   |
| Industrial (b)              |      | 1,430      | 1,614 |       |       |   |
| Commercial                  |      | 689        | 758   | 629   | 10    |   |
| Local Authorities/LECO      |      | 657        | 722   | 762   | 10    | D   |
| Street Lighting             |      | 50         | 49    | 50    | -1    |   |
| System Loss                 |      |            |       |       |       |   |
| System Loss                 | %    | 17.7       | 16.8  | 20.7  | 6     |   |
| (Excluding Self Generation) | 70   | <i>u.i</i> | 10.9  | 20.7  | Ð     | and the second secon |

(a) Provisional

(b) Excluding Self Generation

Source: Ceylon Electricity Board

early part of the year owing to satisfactory water levels in the reservoirs. As water levels dropped to very low levels towards the end of the year, reliance on thermal power generation had to be increased considerably. In addition, CEB took some precautionary measures such as recommencing self generation and contracting of hired power plants, to avert any possible power deficits during early 2000. Overall, thermal power generation by the CEB rose by 12 per cent to 1,396 GWh during 1999. Meanwhile, power purchases from the IPPs (Asia Power Plant and Lakdhanavi Power Plant) expanded by 30 per cent to 525 GWh in 1999. The wind power plant generated 3 GWh of power during 1999.

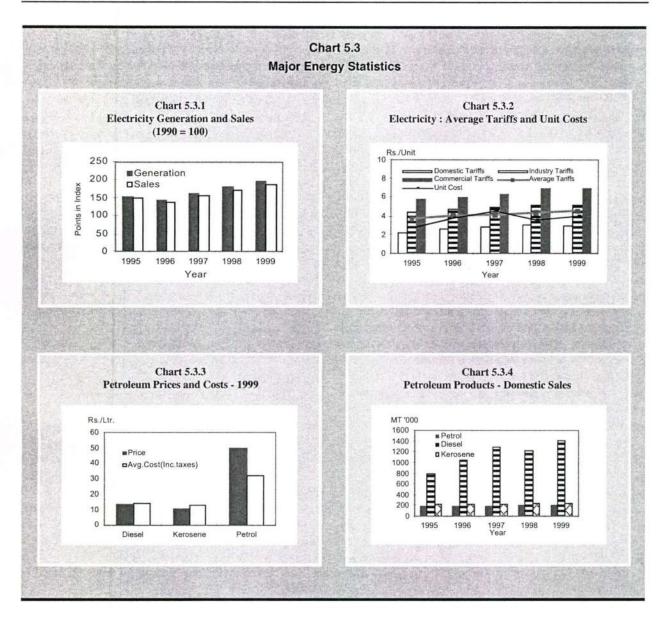
Electricity consumption in 1999 rose by 6 per cent to 4,809 GWh when compared to a 12 per cent growth in 1998. The slower growth in the consumption of electricity was mainly reflected in the industrial sector. Electricity sales to the industrial sector by both the CEB and Lanka Electricity Company Ltd. (LECO) grew by less than 2 per cent to 1,875 GWh, despite the number of industrial consumers under both agencies increased by 6 per cent to 29,387 in 1999. Meanwhile, electricity sales to the domestic sector by the CEB and LECO improved by 11 per cent to 1,851 GWh, mainly due to the expansion of the domestic consumer network by 11 per cent to 2,255,563 in 1999. Accordingly, on the assumption that the average household size is 4.5 persons, the proportion of households with electricity has been estimated to be 53 per cent in 1999 compared to 49 per cent in 1998. The average amount of electricity consumed by a household remained unchanged at 68 KWh. per month. Meanwhile, as in 1998, electricity consumption in the general purpose category grew by about 10 per cent. The number of such consumers rose by 8 per cent to 272,402 in 1999. In the meantime, system losses (excluding self generation) increased to 20.7 per cent from 18.8 per cent in 1998 mainly due to an increase in distribution losses.

Power generation costs increased considerably during the year under review due to several reasons. First, in view of the high thermal power generation by the CEB, fuel costs expanded by 26 per cent to Rs. 3,554 million in 1999. However, CEB was able to contain fuel costs as it received diesel from the CPC at duty exempted prices. Second, with increased power purchases from the IPPs, power purchasing costs of CEB increased by 33 per cent to Rs.3,297 million in 1999. Consequently, the average purchasing price of electricity rose from Rs. 6.00 per unit to Rs.6.28 per unit between the two years. Third, in respect of hydro - power generated by the private sector, the purchasing price was relatively high at Rs. 3.22 per unit in the dry season (February - April) and at Rs. 2.74 per unit in the wet season. With these developments, the average cost of electricity to the CEB rose to Rs. 4.05 per unit in 1999

compared to Rs. 3.60 per unit in 1998. Despite the increase in cost of production, the electricity tariff remained unchanged. The average tariff with respect to domestic, industrial and general purpose sectors remained almost unchanged at Rs. 3.00, Rs. 5.18 and Rs. 7.00 per unit, respectively. Consequently, total revenue of the CEB rose only by 3 per cent to Rs. 24,928 million, reflecting an expansion in the sales of electricity. Meanwhile, the estimated operating expenditure of CEB grew by 14 per cent to Rs. 18,380 in 1999. Thus, CEB recorded an estimated gross operating profit of Rs. 3,165 million in 1999. The fuel costs of thermal power generation could increase considerably in 2000 as the crude oil prices have gone up by more than 150 per cent during 1999. CEB may need either a larger fuel subsidy or upward tariff adjustment to maintain a satisfactory rate of return on its assets.

CEB has undertaken several power projects to expand generating capacity as well as strengthen the transmission and distribution networks. In 1999, CEB's total investments in the power sector increased by 27 per cent to Rs 15,282 million over the preceding year. Of the total investments, Rs.6,585 million was drawn from foreign sources while Rs. 1,280 million was obtained from the government. The balance was financed by internal funds. The main construction work of the Kukule Ganga hydro power plant (80 MW) was commenced in 1999 after completion of access roads and operation and maintenance camps. Contracts have already been awarded in respect of the construction of diversion facilities, power station and hydro-mechanical works. The total cost of the project has been estimated at Rs.17,732 million. Initial steps have also been taken by CEB to install a 165 MW combined cycle power plant at Kelanitissa at a cost of US dollars 154 million. Feasibility and environmental studies have been completed in respect of a proposed 300 MW coal power project. The detailed engineering designs of the project were in progress. This project is expected to be completed by 2005 at a cost of US dollars 658 million. Further, the construction work of the proposed 150 MW Upper Kotmale hydro power project is expected to commence in 2001. Timely implementation of these projects is essential to avert power shortages in the future.

CEB commenced three major power transmission projects in 1999. They are the Transmission and Sub-station Development Project II financed by the OECF (Japan) at a cost of Rs. 1,956 million, the Kelaniya - Ratmalana Grid Sub-station Project financed by KfW (Germany) at a cost of Rs. 547 million and the Vavuniya Grid Sub-station Project financed by NORAD (Norway) at a cost of Rs. 248 million. The ADB funded Rural Electrification Project III (REP III), commenced in 1995 to provide electricity to 110,000 new consumers in rural areas, was at the final stages of completion at a cost of Rs.3,200 million. Under



the project, 1,051 rural electrification projects had been completed by end 1999. In view of the successful completion of the REP III, the ADB has agreed to finance REP IV, to be commenced in 2000.

Construction work on several private sector power plants also continued satisfactorily during the year. The construction work on the 60 MW barge mounted power plant by Colombo Power (Pvt.) Ltd., was in progress and power generation is expected to be commissioned by mid-2000. The total cost of the project is estimated at US dollars 72 million. Another 8 MW diesel power plant named by Kool Air (Pvt.) Ltd. at Kankasanturai is expected to commence in 2000. Further, two diesel power plants, each with capacity of 20 MW, are expected to be installed at Anuradhapura and Matara at a cost of US dollars 41 million. The Memorandum of Understanding (MOU) has been signed in respect of the Kelanitissa 165 MW combined cycle power project. In addition, construction work was in progress in respect of 5 small hydro power plants with a total capacity of about 10 MW. Special power purchasing agreements have been signed between CEB and the developers. Power generation by these plants is expected to commence in 2000. CEB also issued Letters of Intent (LOI) in respect of another 27 small hydro - power projects with a potential capacity of about 67 MW.

As indicated in the Power Sector Policy, government intends to restructure the power sector to promote competition and to encourage private sector participation. The existing vertically integrated power sector is to be unbundled so that power generation, transmission and distribution will be handled by separate entities. In view of the increased participation of the private sector in the power sector, the necessity of an effective regulatory framework has also been recognised in the policy document. The <u>مة:</u>

restructuring programme includes preparation of a power sector reform bill, establishment of a regulatory commission and other institutional reforms.

#### Petroleum

The demand for major petroleum products increased by 9 per cent in 1999. Crude oil imports dropped by 14 per cent due to the closure of the refinery for about 7 weeks during January - March for routine maintenance. As a result, imports of refined petroleum products by the CPC increased substantially by 59 per cent. A major development in the petroleum sector in 1999 was the steep rise in crude oil prices in the world market, particularly during the second half of 1999. While the demand for oil was increasing, particularly from economies recovering from the East Asian crisis, restictions on supply imposed by OPEC led to the sharp rise in crude oil prices. The average crude oil price at US dollars 14.40 per barrel during the first half of 1999 rose sharply to US dollars 22.03 per barrel during the second half of 1999. These developments resulted in an escalation of expenditure on imports of petroleum products by 23 per cent to US dollars 426 million in 1999. The total outlay on petroleum products as a percentage of the total import bill increased to 7 per cent in 1999 from 6 per cent in 1998.

The sharp rise in oil prices exerted heavy pressure on local prices of major petroleum products during the latter part of 1999. As the CPC had benefited from lower oil prices in 1998 and during the first half of 1999, it was able to absorb a part of the loss during the latter part of the year. However, as crude oil prices continued to rise, the CPC was compelled to revise the local selling prices of diesel and kerosene from Rs. 13.20 and Rs. 10.40 per litre to Rs. 16.20 and Rs. 15.40 per litre, respectively, with effect from February 2000. However, even at these prices, the CPC can operate at break even level only if the average crude oil price remains at around US dollars 20 per barrel.

Direct exports of petroleum products by the CPC, consisting mainly of naphtha, dropped by 31 per cent to 103,679 MT due to a drop in production as the refinery was closed for several weeks for maintenance. However, the supply of fuel for foreign aviation, which is considered an indirect export, increased by 13 per cent to 98,078 MT. Meanwhile, Lanka Marine Service (Pvt.) Ltd. (LMS) continued to supply bunker fuel to foreign ships, which is also an indirect export. Auto diesel sales of LMS dropped by 4 per cent while furnace oil sales rose marginally by about 1 per cent in 1999. LMS commenced import of furnace oil in 1998 due to a shortage of supply from the CPC. In 1999, furnace oil imports by LMS increased by 139 per cent, to 77,786 MT. The supply of bunker fuel as well as aviation fuel has been affected by short supply and non-competitive pricing. In Budget 2000, a proposal was made to open the bunker fuel sector to private sector participation by eliminating the monopoly of LMS, as a prerequisite for developing Colombo as a shipping hub in the region.

The demand for major petroleum products including Liquefied Petroleum Gas (LP gas) expanded by 9 per cent in 1999. Super petrol sales increased moderately by 4 per cent in 1999. This includes consumption of unleaded petrol, which is about 2 per cent of the total petrol consumption. Auto diesel sales grew by 16 per cent in 1999 after a 6 per cent drop in 1998. This increase was mainly from diesel sales for thermal power generation, which increased by 69 per cent to 185,434 MT in 1999. Diesel consumption by the transport sector expanded by 12 per cent to 1,095,921 MT. Kerosene sales rose by 3 per cent to 243,000 MT. However, furnace oil sales by the CPC dropped by 5 per cent largely due to lower demand from industries and thermal power plants.

Consumption of LP gas continued to expand in 1999 and demand increased by 19 per cent to 139,909 MT. Of the total LP gas consumption, the domestic sector accounted for 74 per cent, while the balance was in the industrial sector. LP gas imports rose by 28 per cent as the domestic production by the CPC dropped by 27 per cent to 13,140 MT. LP gas consumption in the domestic sector increased by 20 per cent to 103,593 MT, mainly due to expansion in the domestic consumer network. With the increase in the average import price of LP gas by 32 per cent, Shell Gas Lanka Ltd. (SGL) raised the local price of LP gas by about 8 per cent in two steps in June and December 1999. As LP gas prices continued to grow in world markets, SGL further raised its local price by 9 per cent in February 2000. However, competition in the distribution of LP gas could be expected shortly, as the monopoly granted to the SGL ends in 2000.

The CPC is implementing project 'Emergency Rehabilitation of Petroleum Facilities Project' to restore and rehabilitate oil storage facilities. The project encompasses construction of 3 crude oil tanks at Orugodawatte (each with a capacity of 40,000 MT), 6 tanks for refined products at Kolonnawa (5 with capacity of 10,000 MT and one with 15,000 MT) and 6 tanks for refined products at Sapugaskanda (each with capacity of 5,000 MT). The total cost of the project is US dollars 46 million of which US dollars 28 million is financed from an ADB toan. Construction of 3 crude oil tanks each of 40,000 MT at Orugodawatte and 2 diesel tanks each of 10,000 MT at Kolonnawa was completed and commissioned during 1999. The construction work on the 6 tanks at Sapugaskanda was at its final stages and they will be commissioned in early 2000. Under the project to improve regional storage facilities, the CPC constructed 10 storage tanks at regional level during the year. Further, the CPC expects to expand

| ltem                   | Unit         | 1997   | 1998   | aass 1999(a)         | Percentage Change |                                       |  |
|------------------------|--------------|--------|--------|----------------------|-------------------|---------------------------------------|--|
|                        |              |        |        |                      | 1998              | 1999                                  |  |
| Quantity Imported      |              |        |        |                      |                   |                                       |  |
| Crude Oil              | MT'000       | 1,814  | 2,141  | 1,832                | 18                |                                       |  |
| Refined Products       |              | 1.087  | 773    | 1.228                | -29               | 59                                    |  |
| L.P. Gas               | **           | 87     | 99     | es <u>1</u> 27       | 14                | 28                                    |  |
| Value of Imports (C&F) |              |        |        |                      |                   |                                       |  |
| Crude Oil              | Rs Mn.       | 15.584 | 13,990 | 18.222               | -10               | 30                                    |  |
|                        | US\$ Mn.     | 263    | 217    | 259                  | -17               | 19                                    |  |
| Refined Products       | RS Mn        | 12,467 | 6,223  | ت <sup>1</sup> 2,659 | -50               | -<br>                                 |  |
| ,                      | US\$ Mn.     | 212    | 96     | 180                  | -55               | 68                                    |  |
|                        | 004 1112     | •      |        |                      | .00               |                                       |  |
| L.P. Gas               | Rs Mn        | 1,635  | 1,487  | 2,505                | -9                |                                       |  |
|                        | US\$ Mn.     | 28     | 23     | 36                   | -18               | 57                                    |  |
| Average Price of       | As/Barrel    | 1,155  | 871    | A. 1.342             | -25               | 54                                    |  |
| Crude Oil (C&F)        | US \$/Barrel | 19.42  | 13.47  | 19.06                | -23               | 41                                    |  |
| Quantity of Exports    | MT'000       | 547    | 237    | 3 202                | -57               | -16                                   |  |
| Value of Exports       | Rs. Mn       | 6,131  | 2.615  | 3.048                | -57               | 47                                    |  |
| Value of Exports       | US\$ Mn.     | 95     | 40     | 2,43                 | -58               | 8                                     |  |
| Local Sales            | MT '000      | 2,321  | 2,639  | 2,870                | 14                |                                       |  |
| Super Petrol           |              | 193    | 204    | 213                  | 6                 | 4                                     |  |
| Unleaded Petrol        | 13           |        | n.a    |                      |                   |                                       |  |
| Auto Diesel            | ,,<br>,,     | 1,295  | 1.224  | 1414                 | -6                | 16-2                                  |  |
| Super Diesel           |              | 33     | 38     | 40                   | 17                |                                       |  |
| Kerosene               |              | 225    | 236    | 243                  | 5                 | 3                                     |  |
| Furnace Oil            | "            | 372    | 706    | 674                  | 90                | -5                                    |  |
| Avtur                  | μ.<br>       | 104    | 113    | 143                  | 9                 | 26                                    |  |
| L.P. Gas               |              | 99     | 117    | 140                  | 18                | <b>ै≹</b> ≊ 20 . ∵                    |  |
| Local Price            |              |        |        |                      |                   |                                       |  |
| Super Petrol           | Rs/Litre     | 50.00  | 50.00  | 50.00                | 0                 | 0±                                    |  |
| Unleaded Petrol        |              |        | 55.00  | 53.00                | -                 |                                       |  |
| Auto Diesel            | **           | 13,20  | 13.20  | 13.20                | 0                 |                                       |  |
| Super Diesel           | "            | 18.50  | 18.50  | 18.50                | ō                 | · · · · · · · · · · · · · · · · · · · |  |
| Kerosene               |              | 10,40  | 10.40  | 10.40                | ŏ                 | 0                                     |  |
| Furnace Oil            | **           |        |        |                      | -                 |                                       |  |
| 500 Seconds            |              | 7.80   | 7,80   | 7.80 🛬               | Đ                 | 0                                     |  |
| 800 Seconds            | 12           | 7.50   | 7.50   | <b>5.</b> 7.50       | ō                 | F                                     |  |
| 1,000 Seconds          | 17           | 7.20   | 7.20   | 7.20                 | õ                 | 07                                    |  |
| L.P. Gas               | Äs/Ka        | 23.07  | 23.64  | 25.76                | ŝ                 | 8                                     |  |

TABLE 5.6 Performance of the Petroleum Sector

(a) Provisional

Sources: Ceyton Petroleum Corporation Shell Gas Lanka Ltd.

the capacity of the refinery to 100,000 barrels per day from the present 50,000 barrels per day. Meanwhile, the LP gas terminal being constructed by the SGL at a cost of US dollars 95 million was in its final stages of construction.

# 5.6 Transportation

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The year 1999 was characterised by important attempts towards improving the existing transport network and achieving an efficient transport system in the future. The fleet of buses for road transportation was increased while additions were made to the fleet of aircraft operated by SriLankan Airlines (SLA). In order to improve the accessibility to regions, firm decisions were taken to implement the proposed expressways from Colombo to Matara, Katunayake and Kandy. With a view to reducing vehicular congestion in Colombo, an Outer Circular Road has been planned and two fly-overs at Ragama and Dematagoda constructed. Steps were also taken to import power sets and locomotives to improve the rolling stock of Sri Lanka Railways (SLR). In the ports sector, the notable event was the commencement of the development of the Queen Elizabeth Quay (QEQ) on a Build, Operate and Transfer (BOT) basis at an estimated investment of US dollars 240 million. Similarly, in the aviation sector, the refleeting programme was continued by SLA after establishing its strategic partnership with the Emirates Airlines. An aviation infrastructure development programme was also initiated during the year. Overall, the performance Part 1

of the sector indicated that a moderate growth was achieved during the year while several initiatives were taken with a view to increasing the long-term dynamism of the transport system of the country.

# **Transport Network**

Sri Lanka has a road network of approximately 100,000 kilometers sufficient for meeting 90 per cent of the demand for transportation. The total number of vehicles including motor cycles and three wheelers registered at the Department of Motor Traffic (DMT) since 1980 was 1,380,112. The railway network in the country remained at 1,640 kilometers. SriLankan Airlines continued its operations to 33 destinations in 25 countries covering the Indian sub continent, Far East, Europe and the Middle East. The Sri Lanka Ports Authority (SLPA) is responsible for operating the port sector in the country. SLPA operates 4 major ports in Colombo, Galle, Trincomalee and Kankasanturai as a facilitator for ships. In addition, limited shipping facilities were provided by the Ceylon Shipping Corporation and by several private sector shipping companies.

#### Roads

Out of the total length of roads, maintenance and development of A and B class national roads and 4,480 bridges are vested with the Road Development Authority (RDA). Approximately another 15,000 kilometers of C and D class roads are under the purview of provincial councils. The balance is maintained and developed by the local governments and other government and private institutions. The expenditure incurred on roads by the RDA in 1999 amounted to Rs. 5,527 million, a 4 per cent decrease compared to 1998. About 95 per cent of these funds were incurred on rehabilitation, widening and construction of roads. The balance was incurred in respect of general maintenance and the maintenance of bridges. Meanwhile, allocations amounting to Rs. 1,000 million were also made for maintenance and development of provincial and local roads.

RDA implemented a number of foreign funded projects during 1999 to improving the quality of national roads. The RDA continued its road rehabilitation project designed to rehabilitate 397 kilometers of roads and reconstruct 19 bridges in the Southern, Western and North Western provinces. The programme was almost completed by end 1999. The Third Road Rehabilitation and Improvement Project (TRR & IP) with assistance from the Asian Development Bank (ADB) continued through 1999. Under this project, rehabilitation of the Narammala-Giriulla road (16 kilometers), Kurunegala-Padeniya road (25 kilometers), Katugastota-Matale road (11.4 kilometers), Wattegama-Matale road (11 kilometers), Peradeniya-Gampola road (14.2 kilometers) and Kandy-Tennekumbura road (4 kilometers) is being undertaken. Rehabilitation of the Katunayake-Puttalam road (105 kilometers) was also being implemented under this project. The work from Katunayake to Kiriyankalliya (75 kilometers) was in progress at an estimated cost of Rs. 1,084 million. Contracts for the balance work up to Puttalam at an estimated cost of Rs. 557 million had been awarded. The total value of the work completed under the ADB funded TRR & IP in 1999 was Rs. 1,072 million.

The work on the Baseline Road Improvement and Extension Project funded by the Japan Bank for International Co-operation (JBIC) continued in 1999. Under Stage I of this project, the Baseline Road is to be transformed into a dual 3 lane causeway from the Kelanitissa roundabout to the Kanatta roundabout with a fly-over across the mainline railway at Dematagoda and a pedestrian subway at Borella. About 65 per cent of the project has been completed and the work on the balance section from the Kanatta roundabout to the High Level Road section will be commenced in the first half of 2000. The total estimated cost of the project is Rs. 1.530 million. The widening of Sri Lanka-Japan Friendship Bridge (Phase 11) with OECF assistance was also in progress and is scheduled to be completed by September 2000. The cost of the project has been estimated at Rs. 1,000 million, of which Rs. 549 million had been spent in 1999. With assistance from the Kuwait Fund for Arab Economic Development, rehabilitation and reconstruction of 28 bridges was continued in 1999. The value of the work done in 1999 was Rs. 147 million. Reconstruction of 5 bridges under a JICA grant was also in progress during 1999. Meanwhile, the extensive sand sealing and surface dressing of roads was continued under the Periodic Maintenance Programme. The road kilometerage so far completed with sand sealing and surface dressing was 1,517 kilometers and 78 kilometers, respectively. The value of the work done in 1999 was Rs. 72 million.

In addition to the foreign assisted projects, the RDA implemented several construction and rehabilitation projects with local funds. A sum of Rs, 2,204 million had been released for execution of work in all provinces. The construction of the Marine Drive at an estimated cost of Rs. 72 million, Duplication Road extension project at an estimated cost of Rs. 52 million and the construction of the Kelanisiri Bridge over the Kelani river at Kelaniya at a cost of Rs. 110 million are some of the projects that were in progress.

Government announced that its highway infrastructure modernisation programme will commence shortly. Accordingly, the Colombo-Katunayaka expressway from the new Kelani bridge to the Katunayake Airport (25 kilometers) is to be constructed as a 4 lane dual carriage expressway. Tenders have been called from international contractors for a design-build project. The work is scheduled to commence in 2000. In addition, feasibility studies have been completed in respect of the Matara-Colombo expressway, which will be funded jointly by the ADB and the Government of Japan. The detailed engineering designs were also being prepared. The feasibility study for the Colombo-Kandy expressway is to commence in 2000 with assistance from the SIDA (Sweden). The feasibility study for the Colombo Outer Circular Road, which will link all major roads radiating from Colombo, is in progress and the final report is scheduled to be submitted by March 2000.

Although the road density and the road coverage is relatively better in Sri Lanka compared to other developing countries, the condition of roads, particularly the provincial and local roads, has not kept abreast with the growing demand for transportation, mainly due to resource constraints. The continuation of routine and periodic maintenance programmes are essential to avoid further deterioration. However, the demand for an improved road network goes beyond the usual maintenance and expansion of the roads. An extensive road development and management project needs to be carried out in order to address the emerging issues in the transport sector. It is evident that most highways in the Colombo metropolitan area are operating at or near capacity, especially during peak periods. The management of traffic on existing roads as a cost saving method of easing traffic movement and ensuring maximum capacity utilisation, needs to be considered by the relevant authorities. As an initial measure to reduce road congestion, a rational vehicle importation policy has to be introduced. The construction of bypasses and fly-overs, discouraging non-essential travel by private vehicles to the city by imposing rational parking fares, setting up vehicle parks in pre-determined areas in the city and operating bus services/shuttle services to business places and encouraging high rise building constructors to build under ground parking facilities are some viable solutions to ease the traffic congestion in large cities. In the long run, the most effective solution for the existing road congestion will be the development of an efficient railway system. The reduction of congestion, safer roads and environment friendly transport system would be challenges for the future.

#### **Passenger Transport**

The passenger transportation sector reflected a moderate expansion during 1999. This is mainly attributed to the continuing efforts made by government to provide a better transport service. Improvement in public sector road passenger transportation was due to the increased bus fleet. Private passenger transport services expanded further, particularly in providing luxury bus services. Sri Lanka Railways (SLR) maintained its normal scale of operations in spite of chronic problems. A considerable improvement has been made by SLR to keep to timetables.

#### **Bus Transport**

The bus fleet of Regional Transport Companies (RTCs) stood at 8,286, registering a 3 per cent increase over 1998. The average number of buses operated per day was 4,715 in 1999 when compared with 4,528 in 1998. This improvement was mainly due to the importation of 528 new buses and 500 new engine kits by the government in 1999 for the RTCs. As a result, the operated kilometerage of RTCs increased by 7 per cent to 345 million while the passenger kilometerage also increased marginally to 17,956 million. However, the financial condition of the RTCs deteriorated further in 1999. The revenue of RTCs increased by 10 per cent to Rs. 5,312 million. The expenditure also increased significantly by 20 per cent mainly due to the increase in the wage bill by 22 per cent and maintenance expenditure by 21 per cent. Consequently, the RTCs recorded a loss of Rs. 2,336 million during 1999 compared with a loss of Rs. 1,574 million in 1998.

Several policy decisions were taken in 1999 by the government to address problems in the passenger transportation system. The government expects to increase its share in the passenger transport sector to 60 per cent from the present 40 per cent by adding more buses to the fleets of RTCs. New buses for RTCs are imported mainly from India, after considering durability, ease of maintenance and cost of spare parts. At the same time, private sector bus assembling companies continued to operate, mainly targeting the local market. The Minister of Transport and Highways appointed a committee in 1999 to examine ways and means to re-establish the Ceylon Transport Board (CTB). The main objective of this proposal was to provide a better quality and well-integrated transport service to the public by redeploying the Sri Lanka Central Transport Board (SLCTB) labour force in an effective manner.

The new registration of private passenger transport buses at the Department of Motor Traffic stood at 1,259 in 1999. As reported by the provincial authorities on road passenger transport, there were 12,759 private buses in operation in the provinces (except in the Northern and Eastern provinces) at end 1999 indicating a 14 per cent increase compared to 1998. The total seating capacity of these buses increased by 15 per cent to 462,543. The number of bus owners increased by 15 per cent to 12,634, indicating a further dispersion of private bus ownership. The total number of direct employment opportunities in this sector (at the provincial level) has been estimated at around 31,000 in 1999. Meanwhile, in view of the difficulties faced by private sector operators, the government allowed a 15 per cent increase in fares, subject to improvement in the quality of service, with effect from September 1999. However, this revision of fares was not implemented by the RTCs.

| _  |                                    |               |        |         | 1. Second                | Percent | age Change               |
|----|------------------------------------|---------------|--------|---------|--------------------------|---------|--------------------------|
|    | item U                             | nit           | 1997   | 1998    |                          | 1998    | a1999 (a)                |
| 1. | New Registration of Motor Vehicles | Nos.          | 83,381 | 103,760 | 102,853                  | 24.4    | -0.9                     |
|    | Buses                              |               | 1,999  | 3,184   | 2,118                    | 59.3    |                          |
|    | Private Coaches                    |               | 60     | 164     | 493                      | 173.3   | 200.6                    |
| •  | Private Cars                       | **            | 4,906  | 6,142   | 10,532                   | 25.2    | 71.5                     |
|    | Three Wheelers                     | .,            | 10,139 | 16,547  | 14,706                   | 63.2    |                          |
|    | Dual Purpose Vehicles              | 19            | 16,293 | 18,455  | *tz 9,818                | 13.3    | -46.8                    |
|    | Motor Cycles                       |               | 36,755 | 42,089  | 42,497                   | 14.5    | s, s, 10                 |
|    | Goods Transport Vehicles           | **            | 5,561  | 8,702   | 13,361                   | 56.5    | 53.5                     |
|    | Land Vehicles                      | ••            | 7,652  | 8,415   | 9,290                    | 10.0    | 10.4                     |
|    | Others                             |               | 16     | 62      | <b>4 38</b>              | 287.5   | ुंग -387 <sup>-</sup> ्र |
| 2. | Sri Lanka Railways (S L R)         |               |        |         |                          |         |                          |
|    | Operated Kilometers                | <b>'000</b> ! | 7,787  | 8,534   | 8,900                    | 9.6     | 4.3 42                   |
|    | Passenger Kilometers               | Mo.           | 3,146  | 3,073   | 3,104                    | -2.3    | 1.0                      |
|    | Freight ton Kilometers             | Mn.           | 98     | 105     | 103 🗸 🖌                  | 7.1     | 19 · · ·                 |
|    | Total Revenue                      | Rs.Mo.        | 1,030  | 1,190   | 1,038                    | 15.5    | -12.8                    |
|    | Current Expenditure                |               | 1,742  | 2,038   | 2,886                    | 17.0    | 🤁 😳 🖓 🖓                  |
|    | Operating Loss                     | **            | 712    | 847     | <b>1,84</b> 8            | 19.0    | 118.2                    |
|    | Capital Expenditure                | **            | 4,484  | 3,997   | \$2,621                  | -10.9   | -34 4                    |
| 3. | Regional Transport Companies       |               |        |         | 17 <b>7.4</b> -79        |         |                          |
|    | Operated Kilometers                | Mn.           | 332    | 322     | 345                      | •3.0    | 71-71                    |
|    | Passenger Kilometers               | **            | 19,154 | 17,749  | CC 17,956                | -7.3    | 94 - <b>1</b> 12         |
|    | Total Revenue                      | Rs.Mn.        | 4,692  | 4,808   | 5,312                    | -1.7    | <u>.</u> 10.5            |
|    | Operational Expenditure            | **            | 6,467  | 6,381   | 7,648                    | -1.3    | 19.9                     |
|    | Operating Loss                     |               | 1,575  | 1,574   | 2,336                    | -0.1    | 48.4                     |
| 4  | Air Lanka                          |               |        |         |                          |         |                          |
|    | Hours flown                        | Hrs.          | 31,364 | 32,895  | 40,004                   | 4.9     | 21.6                     |
|    | Passenger Kilometers Flown         | Mn.           | 4,265  | 4,155   | 5,145                    | -2.6    | 23.8                     |
|    | Passenger Load Factor              | %             | 75.9   | 69.8    | ્રે મુખ્ય <b>71.3</b> સ્ | -8.0    | 2.1                      |
|    | Weight Load Factor                 | %             | 68.4   | 60.9    | <b>58.5</b>              | -11.0   | Sec. 3.9                 |
|    | Freight                            | MT.           | 37,002 | 33,550  | 39,626                   | -9.3    | -1 <b>8</b> .1           |
|    | Employment                         | No.           | 4,655  | 4,822   | 4,900)9                  | 3.6     |                          |

TABLE 5.7 Salient Features of the Transport Sector

(a) Provisional

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

The issue of the quality of private sector passenger transportation services has been widely discussed at various levels. Commuters continue to complain that the private operators are exceptionally profit motivated and do not consider the comfort of passengers. However, private bus operators indicate various sector specific difficulties that they face. The high cost of spare parts, the Goods and Services Tax and exchange rate variations are said to be the main reasons for the relatively high expenses. The issue of commuter comfort has been resolved to some extent with the introduction of luxury and semi luxury buses. The rapid increase in the number of luxury and semi-luxury buses indicate that passengers are willing to pay a higher price for a relatively more comfortable bus ride. However, there are growing concerns regarding the safety of the luxury services due to the increasing number of accidents. The normal service has not been able to overcome its difficulties

yet. As a solution, the government has imposed various conditions such as limits on passenger loads, speed limits, road ethics and late-night services. Nevertheless, shortcomings continue mainly due to difficulties in enforcement and weaknesses in the regulatory framework.

The National Transport Commission (NTC) continued to function as the advisor to government on transport and related matters while implementing several programmes to improve passenger transportation in the country. NTC continued its programmes to phase out low roof buses following a decision taken in 1995. Although there were about 1,997 low roof buses in 1995, this had been reduced to 288 by June 1999. At the same time, a programme has been introduced to deploy buses with large capacity on national highways. Under this programme, it has been decided not to issue new permits for buses with less than 40 seats for operating on A and B class roads with a view to improving passenger convenience and reducing congestion.

NTC also made arrangements to develop the main private bus stand at Bastian Mawatha, Pettah, with World Bank assistance at a cost of Rs.31 million and it was opened in December 1999. NTC continued its programme to train private bus crews in collaboration with the SLCTB Driver Training Schools and assistance from the World Bank, at a cost of around Rs.25 million. A total of 20,102 drivers and conductors had been trained by end June 1999. Meanwhile, NTC disbursed Rs.210 million in 1999 to RTCs for the operation of 2,174 uneconomic rural bus services. NTC commenced a programme to provide bus services on uneconomical rural routes by providing incentives to private bus operators.<sup>5</sup> These bus services are now operating in Galle, Anuradhapura and Kandy districts.

A committee was appointed by the Ministry of Transport and Highways to formulate a policy for bus transport in the country. The committee recommended that the share of the state bus service be increased to 60 per cent to provide a better service at reasonable cost. The importance of formation of private bus companies has also been emphasised by the committee. The Ministry appointed another committee in accordance with the National Transport Commission (Amendment) Act No.30 of 1996 to work towards the establishment of private bus companies with a minimum fleet of 50 buses. According to the Act, private bus companies are to be formed before February 2003. As an initial step, it has been proposed to conduct district-wise awareness campaigns among private bus operators on the formation of companies.

#### **Rail Transportation**

Sri Lanka Railways (SLR) indicated a slight improvement in its scale of operations during 1999 despite some persistent problems. The rolling stock of SLR comprised 129 locomotives, 38 power sets, 1,152 carriages and 2,553 wagons. The operated kilometerage of SLR increased by 5 per cent to 9 million, while the passenger kilometerage increased marginally to 3,104 million. The number of passengers carried increased marginally to 83 million. However, the freight transportation of SLR during 1999 stood at 103 million freight ton kilometers indicating a 2 per cent decline over 1998. Except in 1998, freight transportation by SLR has been declining since 1992.

The problems faced by SLR are many, including an insufficient number and poor performance of the rolling stock, decaying and weak rail track, an out-dated centralised traffic control and communications system and poor worker productivity. With a view to improving the availability and quality of services, SLR implemented several measures during the year. Four new commuter trains were introduced in the Colombo suburban zone and two new inter-city express trains between Vavuniya and Colombo and Galle and Colombo. The destinations of two trains operating between Colombo and Kandy were further extended, one to Matale and the other to Haputale. Four low-cost rail buses, manufactured at the Ratmalana workshop, were put into operation for local passengers between Polgahawela and Maho and Galle and Matara. Regular dialogues with travellers' associations were continued in revising timetables. In addition, steps were taken to open 10 new railway sub-stations in 1999.

Several measures are being taken to improve the rolling stock of SLR. The number of locomotives in operating condition was 129 while around 115-120 locomotives were available for daily service in 1999. Orders have been placed for purchasing of 10 broad gauge locomotives, 15 diesel-multiple units and 40 goods transport wagons. Contracts for the procurement of new machinery and equipment for upgrading the electric locomotive shed and two locomotives have been awarded. The contract for the procurement of 4 diesel engines for re-engining M5 type locomotives was also awarded. Meanwhile, the workshop at Dematagoda was upgraded for the maintenance of diesel electric locomotives.

The poor condition of the rail track has necessitated rehabilitation, improvements and proper maintenance. Track improvement work from Bambalapitiya to Veyangoda under OECF assistance was completed in 1999. A double line track from Panadura to Wadduwa was laid and construction work was in progress to extend it to Kalutara South. In addition, the construction of an additional track from Ragama to Negombo was underway. To improve facilities for passengers, SLR undertook a programme to construct and rehabilitate station buildings. The construction of a new station building at Veyangoda commenced in 1999 at an estimated cost of Rs. 14 million. The development of the Gampaha railway station commenced in July 1999 with assistance from the Urban Development Authority (UDA). Plans were under preparation for the development of railway stations in Kalutara South, Galle, Kurunegala, Ambepussa, Ragama and Panadura.

The programme of upgrading the signalling and communications system continued in 1999. The installation of a Colour Light Signalling (CLS) system on the coastline had been completed up to Hikkaduwa. The extension of the system up to Matara is scheduled to commence in early 2000. The CLS for the 3rd line between Ragama/Kelaniya was also completed. The CLS system for the newly opened double line section between Polgahawela and Rambukkana was commissioned in 1999. The CLS system for the newly constructed second track between Panadura and Wadduwa was nearing completion.

The overall financial position of the SLR deteriorated further in 1999. Total revenue decreased by 13 per cent to Rs. 1,038 million, while total current expenditure increased Part 1

by 42 per cent to Rs. 2,886 million. Consequently, the operational loss of the SLR increased by 118 per cent to Rs. 1,848 million. Highly subsidised passenger fares and low productivity are partly the reasons for this unsatisfactory financial situation.

There is an urgent need for effective utilisation of existing resources and for capital infusion to the railway system for its upgrading. The proposed electrification of the suburban railway system needs to be expedited to increase efficiency. Further, an upward revision of fares is imperative in order to cover operating costs.

#### Civil Aviation

The government launched several important projects to enhance the performance of the national carrier and to improve the infrastructure of the civil aviation sector. The ownership of SriLankan Airlines (SLA) was diversified by transferring 26 per cent of the government stake to Emirates Airlines (EAL) for US dollars 43 million in 1998. Another 14 per cent is expected to be transferred to EAL by end 2000, Under the re-fleeting programme of the SLA, 3 airbuses were added to its fleet in 1999. The scale of operations of SLA in terms of number of passengers, kilometers flown and passenger kilometerage expanded during 1999. Initiation of Stage I of Phase II of the Bandaranaike International Airport (BIA) Development Project was a significant step towards enhancing the aviation infrastructure in the country.

The total number of passengers who passed through the BIA in 1999 increased by 12 per cent to 2.6 million. The total freight handled at the BIA amounted to 102,709 metric tons which was a 10 per cent increase over 1998. Of the total number of air passengers, about 54 per cent (1,419,922 passengers) travelled by SriLankan Airlines. Kilometers flown by SLA increased by 22 percent to 31.7 million. Passenger kilometerage also increased by 24 per cent to 5,145 million. The passenger load factor (defined as the percentage relationship of revenue to load capacity provided) increased marginally to 71 while the weight load factor declined to 58 in 1999 from 61 in 1998. Total revenue of SLA increased by 8 per cent to Rs.17,371 million for the financial year 1998/99. As the operating expenditure was Rs.15,590 million, the SLA recorded an operational profit of Rs.1,780 million during this period.

After its strategic partnership with the EAL, SLA is undergoing an internal restructuring plan for improving competitiveness. Under the re-fleeting programme, 3 Airbuses were added to SLA's fleet during 1999 at a cost of US dollars 298 million and another 6 Airbuses are expected to be added during 2000. The marketing division of SLA was re-organised to reflect the airline's new identity and corporate goals. Overseas operations were decentralised by stationing four managers in four regions covering the entire world. The opening of a 24-hour ticketing office at BIA and ticketing offices at provincial capitals are included in the SLA's product development plan. SLA initiated a programme to improve its services and revenue by integrating passenger reservations, departure control, revenue accounting and yield management systems. Under this programme, the Mercator Airline Reservation System (MARS) and the Revenue Accounting Protection Interline and Decision Support (RAPID) system were introduced in July 1999. A complete computer based yield management system is expected to be installed by end 2000. As part of the effort to develop Colombo as a hub airport by encouraging the flow of trans-continental traffic through Sri Lanka, SLA entered into code-sharing agreements with several airlines. Increased aircraft utilisation helped to conduct non-stop flights to many countries and to increase frequency of services.

BIA expansion and modernisation programme was implemented concurrently. The development of the BIA has been planned in two phases. Phase I, begun in 1994, was completed in 1998. Stage 1 of Phase II includes several activities such as an asphalt overlay to 1,860 meters of the paralleled taxiway; expansion of the aircraft parking apron. strengthening of the existing parking apron, construction of a pier with 8 gate lounges and 8 passenger boarding bridges, improvements to the air navigation system and expansion of cargo facilities. The total estimated cost of Stage I will be US dollars 100 million. An agreement was signed in 1999 with the Japan Bank for International Cooperation (JBIC) for financial assistance for this project. With the completion of this project, capacity for passengers is expected to increase from 3 million to 4 million per annum while cargo handling capacity will increase from 150,000 metric tons to 300,000 metric tons per annum. Airport and Aviation Services (Sri Lanka) Limited (AASL), which operates the BIA, recorded an income of Rs 1,690 million in 1999. In restructuring the institutional system, the Department of Civil Aviation (DCA) continued its work towards transforming the DCA to an Authority. The necessary legislation was under preparation.

Sri Lanka has a locational advantage for emerging as an aviation hub in the region. However, a number of prerequisites have to be fulfilled to achieve this status. The expansion of airport capacity, enhancement of passenger facilities and rationalisation of airport charges are among the vital requirements to be met. Some of these are being addressed under the ongoing projects. Other facilities such as an airport hotel complex are also being planned. At the same time, the national carrier is moving towards achieving this objective in several ways including code-sharing agreements with foreign airlines. International air cargo transportation by private sector companies is emerging in the country. At present, they are operating with minimum facilities and the capacity limitation at BIA is one of the impediments to the expansion of their operations. Domestic flight operations by the private sector were not resumed due to security reasons. This has considerably affected the potential users of domestic flights such as tourists, businessmen and investors.

# Port Services

The government, in association with the Sri Lanka Ports Authority (SLPA), commenced several port expansion projects to address the issue of capacity limitation at the Port of Colombo. The Port of Colombo has been operating almost at its designed capacity since 1997. Accordingly, the long awaited Queen Elizabeth Quay (QEQ) development project was commenced on a BOT basis in 1999 to expand the present capacity of the QEQ fourfold to 1 million twenty-foot equivalent container units (TEUs). Construction work on Phase II of the North Pier development project was begun in 1999. Further, action was taken to develop regional ports in Galle and Trincomalee with a view to reducing regional disparities in port development and to ease congestion at Colombo port. However, the demand for port services has remained stagnant during the past two years, particularly for transshipment containers. The new container terminals opened at Salalah in Oman in 1998 and at Aden in Yemen in 1999 have increased the competition to transshipment container handling at the Colombo port. Several shipping lines operating via Colombo have diverted their containers to these new ports. However, the resulting losses have been offset to a large extent due to new shipping lines calling at Colombo. Continuous efforts need to be made to improve the efficiency in the Port of Colombo in order to face the increasing challenges in the future.

The total number of ships that called at the ports of Colombo, Galle and Trincomalee increased by 3 per cent to 4,339 in 1999. The total cargo handled at these three ports increased marginally to 27 million metric tons. The total number of ships arriving at the Port of Colombo in 1999 increased by 2 per cent to 3,968 while the container

|   |                |        |                         | Percer | ntage Change   |
|---|----------------|--------|-------------------------|--------|--|
| kem   | item 1997 1998 |        | ]]ss 1999 (a) ∕∵<br>∑sj | 1998   | ્ટ્રેટ્ટ્ 1999 (a)   |
| 1 Vessels Arrived (No.)                           | 4,087          | 4,233  | 4,339 * 4               | 4      | Sec. 3   |
| Colombo   | 3,627          | 3,879  | 43,968                  | 7      | · 并 " 9 2 、  |
| Galle   | 56             | 104    | 97                      | 86     |  |
| Trincomalee                                       | 404            | 250    | 274                     | -38    | 10   |
| 2 Total Cargo Handled (MT '000.)                  | 26,832         | 26,847 | 26,995                  | 0      | and the second sec |
| Colombo '   | 25,117         | 24,793 | 24,825                  | -1     | <b>1</b> 1   |
| Galle   | 182            | 402    | 439                     | 121    | 9  |
| Trincomalee                                       | 1,533          | 1,652  | 1,731 🖓 💃               | 8      | 5  |
| 3 Total Container Traffic (TEUs '000) (b)         | 1,687          | 1,714  | 1,704                   | 2      |  |
| 4 Transshipment Container Traffic (TEUs '000) (b) | 1,233          | 1,235  |                         | 0      | <b>3</b>   |
| 5 Revenue (Rs. Mn.)                               | 10,974         | 13.638 | 15.089                  | 24     | Sec. 11.   |
| Colombo   | 10,731         | 13,221 | 14.552                  | 23     |  |
| Galle   | 81             | 218    | 225                     | 169    | a  |
| Trincomalee                                       | 162            | 199    | 311                     | 23     | <sup>12</sup>  |
| 6 Expenditure (Rs. Mn.)                           | 8,194          | 8,590  | 9,765                   | 5      | 14   |
| Colombo   | 7,807          | 8,163  | 9.316                   | 5      | - E E <b>14</b> (18)   |
| Galle   | 152            | 186    | 190                     | 22     | 1  |
| Trincomalee                                       | 235            | 241    | 254                     | 3      | 5  |
| 7 Operating Profit-before Tax (Rs.Mn.)            | 2,780          | 5,048  | 5,324                   | 82     | 6  |
| Colombo   | 2,924          | 5,059  | 5,236                   | 73     | 1457 - Bern Stern Barg to Said   |
| Galle   | -71            | 32     | ···· 35 ··· 3           | 145    |  |
| Trincomalee                                       | -73            | -42    | . 52                    | 42     | 224  |
| 8 Employment (No.)                                | 19,033         | 18,777 | 18,930                  | -1     |  |
| Colombo   | 17,101         | 16,964 | 17,075                  | -1     |  |
| Galle   | 831            | 769    | 777                     | -7     | - 人名德廷二利 经公司   |
| Trincomalee                                       | 1,101          | 1,044  | - 1 <b>.078</b>         | -5     | 3  |
| 9 Productivity Indicators (Main Vessels)          |                |        |                         |        |  |
| Gantry Moves Per Hour (Gross)                     | 16             | 12     | 15                      | +25    | <b>25</b>  |
| Gantry Moves Per Hour (Net)                       | 17             | 17     | 217                     | 0      | 0  |

TABLE 5.8 Performance of Port Services

(a) Provisional

(b) Containers are handled only in the Port of Colombo

TEUs = Twenty-foot Equivalent Container Units

Source: Sri Lanka Ports Authority

ships that arrived at port of Colombo increased marginally to 2,986. The arrival of conventional ships increased by 6 per cent, while ships calling for repairs and chandelling etc. (except those calling for bunkering) increased significantly by 30 per cent. The transshipment container volume, which is the major thrust of container handling trade in Colombo, declined by 3 per cent to 1,192,771 TEUs. However, domestic container handling increased by 7 per cent due to improvement in international trade. Consequently, the total cargo handled at the Colombo port increased marginally to 24.8 million metric tons. The cargo handled at the Galle and Trincomalee ports increased by 9 per cent and 5 per cent, respectively, reflecting improved performance in 1999.

SLPA has undertaken several projects during 1999 to enhance cargo handling capacity of the Port of Colombo. The preliminary work of Phase II of the North Pier development project was initiated in 1999 with funds from the OECF and SLPA. Under this project, the balance work at the North Pier will be carried out to at a cost of Rs. 3,660 million to enable it to handle both containers and general cargo. It will be upgraded with 3 container cranes and 6 transfer cranes to handle containers. On completion, the new North Pier will have a capacity to handle 230,000 TEUs per annum and general cargo. An additional feeder berth at the Port of Colombo has been planned adjacent to the Jaye Container Terminal (JCT) to improve the feeder container handling efficiency at a cost of Rs. 1,200 million. In addition, a port efficiency improvement project with assistance from the World Bank is to be implemented at the Colombo port at a cost of US dollars 44 million. This project includes four components, namely, a policy component, a safety and environmental enhancement component, a trade facilitation component and a technical assistance and training component. A new warehouse complex at Peliyagoda was opened in March 2000 after modifications and renovations. This will ease congestion in the Port of Colombo. The development work of the OEO with private sector participation is being implemented at an estimated cost of US dollars 240 million. SLPA/Government of Sri Lanka and the private sector developer, South Asia Gateway Terminal (Pvt.) Ltd (SAGT) signed the agreements in August 1999 to lease out the QEQ to SAGT for 30 years on a BOT basis. Under Phase I of the project, the present quay wall will be widened by 100 meters and 3 container births, equipped with 9 quay side gantry cranes and 28 rubber tired transfer cranes, will be provided. After completion, the container handling capacity of the QEQ will increase from present 250,000 TEUs to 1 million TEUs per annum.

The development of the ports in Galle and Trincomalee has also been given priority in the government policy agenda. The construction of a jetty at the Port of Galle at an estimated cost of Rs. 600 million was initiated. This project envisages the construction of a jetty to accommodate 8,000 DWT break bulk cargo vessels. The tender was awarded to China Harbour Engineering Company and the agreement was signed in September 1999. The construction of a new pier at Trincomalee harbour, at an estimated cost of Rs. 1,250 million, was commenced in December 1999. The construction of an alongside berth to accommodate 40,000 DWT break bulk cargo vessels is envisaged under this project. This will significantly increase the cargo handling capacity of the Port of Trincomalee, enabling it to cater to industries and trade in the hinterland of the Eastern part of the country. The pier is to be completed by August 2001. Meanwhile, a feasibility study is being carried out with financial assistance from the ADB to develop a new port south of Colombo.

Along with capacity expansion, ancillary services, port facilities and the operating efficiency of the ports need to be improved to attract more ships. In this context, efforts were made to improve the productivity of the Port of Colombo through the extension of port working hours and the installation of modern equipment. As a result, the Gross Gantry Moves Per Hour (GGMPH) for feeder vessels increased to 13 from 11 in 1998. The GGMPH for main vessels also increased to 15 from 12 in 1998. The average delay in berthing for feeder vessels decreased significantly to 5.2 hours in 1999 from 14.3 hours in 1998, while for main vessels, it declined to 3.7 hours. The average port stay for main vessels also decreased to 19.9 hours while that of feeder vessels decreased to 31 hours. The average port tariff for a 20-footer transshipment container was Rs. 2,091 in 1999, while for a domestic container was Rs. 10,998. This reflected increases of 3 per cent and 8 per cent, respectively.

The gross revenue of SLPA increased by 11 per cent to Rs. 15,089 million during 1999 compared to 1998. The operating expenditure also increased by 14 per cent to Rs.9,765 million. Consequently, the before-tax operating profits increased to Rs. 5,324 million reflecting a 5 per cent increase over 1998. All three ports were able to earn profit during 1999.

There is significant scope to develop bunkering facilities at the Port of Colombo, as the port is strategically located in close proximity to international navigation lanes. However, at present, this sector is not functioning at its potential due to a short supply of bunker fuel and the adoption of an irrational pricing policy. Therefore, the government in its budget for 2000 proposed to liberalise the bunkering trade by opening it to the private sector. Accordingly, private operators will be allowed to supply bunkers to ships on an offshore basis. The government is also planning to set up a new Maritime Authority by amalgamating existing bodies and streamlining the regulations to oversee the ports and shipping industry.

# 5.7 Irrigation and Settlement Schemes

The restructuring and rehabilitation work in the Mahaweli Development Programme which commenced in 1990 continued during the year. At end 1999, over 5,900 employees retired under the voluntary early retirement scheme introduced as part of the restructuring programme in 1998. Accordingly, expenditure incurred during the year declined by 27 per cent to Rs.922 million. The total extent cultivated under the Mahaweli command area increased during both Maha and Yala seasons and resulted in a 13 per cent increase during the 1999 cultivation year to 134,000 ha. The total hydro power generated in the six power plants coming within the purview of the Mahaweli Programme increased by 7 per cent to 2,117 GWh during the year.

The National Irrigation Rehabilitation Project, a major foreign funded irrigation scheme jointly funded by the International Development Association (IDA) and European Economic Community (EEC), progressed further in 1999. During the year, a sum of Rs.130 million was spent on the project, bringing the cumulative expenditure to Rs.2,329 million at end 1999. Expenditure incurred by the Irrigation Department on 23 locally funded projects during the year amounted to Rs.212 million. Of this, the 'Mau Ara' project, benefitting the Moneragala and Hambantota districts, accounted for the major share (approximately Rs. 91 million). Two projects, namely the 'Mau Ara' and 'Katupath Oya', accounted for almost half the expenditure during the year.

# 5.8 Special Programmes

#### Housing

The supply of housing has improved substantially in recent years owing to increased intervention by government, active participation of the private sector and the development in the housing finance market. According to some preliminary estimates, the number of newly constructed houses and number of housing loans granted under various public and private sector housing programmes totalled to nearly 80,000 during 1999. A large proportion of these housing units were located in the rural and estate sectors. The demand for housing, especially in the urban sector, is growing rapidly along with the population expansion, urbanisation and rising income levels. Public sector housing programmes mainly focus on meeting the housing needs of the low and middle income families, while private sector housing programmes are largely for the middle and high income categories. The government strategy towards housing development encompasses rendering direct assistance to low income families to build or upgrade their housing, revitalising the housing finance system and encouraging the private sector to undertake housing development projects with appropriate incentives.

The National Housing Development Authority (NHDA), the apex institution responsible for implementing public sector housing programmes, implemented seven major housing programmes during the year under review. The major projects in progress were the Jana Udana Programme (JP), Rural Housing Programme (RHP), Urban Housing Programme (UHP), Estate Housing Programme (EHP), Direct Construction Programme (DCP), Disaster Housing Programme (DHP) and Fisheries Housing Programme (FHP). The total number of housing units completed under public sector housing programmes in 1999 rose by 6 per cent to 42,225, while total disbursements grew sharply by 68 per cent to Rs.1,486 million when compared with the previous year.

The Jana Udana programme displayed considerable progress during 1999. Under this programme, a total of 12,464 housing units were completed in 304 villages. This represents about 50 per cent of the total housing units so far completed under the Jana Udana programme. At end 1999, there were 504 Jana Udana villages with 23,688 completed housing units. Total loan disbursements under the Jana Udana programme amounted to Rs.285 million in 1999. The performance of the RHP and UHP slowed down in terms of the number of housing units completed. However, total loan disbursements under these housing programmes increased by 94 per cent and 41 per cent, respectively. Although there were special housing programmes designed for the upliftment of the estate and fisheries sectors under some other institutions, the NHDA continue to be involved in EHP and FHP. During 1999, a total of 1,230 housing units were completed under EHP, while 650 housing units were completed under FHP. Under DCP, the NHDA constructs houses, particularly in urban areas, for outright sale. During 1999, a sum of Rs.609 million was spent for DCP as against Rs.339 million in 1998. The construction of 2,781 housing units commenced during the year, while 1,396 housing units were completed. Under DHP, a total of 2,426 housing units were completed, while the construction of 3,393 new units was commenced at a total cost of Rs.56 million. The DHP has been designed especially to cater to the displaced families in the Northern and Eastern provinces.

The average loan disbursed by the NHDA amounted to Rs.25,000 per house with an interest rate of 10 - 16 per cent per annum and a repayment period of 5 - 16 years, depending on the loan amount. The NHDA charged 10 per cent interest on loans less than Rs.20,000 and 16 per cent on loans exceeding Rs.30,000. The maximum loan amount was Rs.50,000 per house. Despite the concessional nature of loans, the loan recovery rate has been very unsatisfactory and remained around 59 per cent. Consequently, NHDA faced serious financial difficulties in 1999. Although the Treasury granted Rs.1,045 million for the housing programmes implemented by the NHDA, it could internally raise only one third of the required funds due to low recovery rates.

Meanwhile, several other agencies, such as the Plantation Housing and Social Welfare Trust (PHSWT) and the Ministry of Fisheries and Aquatic Resource Development, executed several housing programmes independently to cater to the needs of specific groups. The PHSWT provided housing finance facilities under the Plantation Development Support Programme (PDSP). Under the PDSP, loans are provided to estate employees for the construction of houses, roof structures and cover. In addition, each beneficiary family is given a plot of land by government, with a maximum extent of 7 perches, at a concessionary rate of interest repayable over a period for 15 years. PHSWT also provides infrastructure facilities such as surveying and blocking out of lands, water supply and latrines to all new housing projects. Under this programme, a total of 7,134 new housing units were constructed and 2,326 units were upgraded during 1999 compared with 794 new housing units and 1.075 upgraded units in 1998. Further, 5,602 new housing units and 1,472 upgraded units were under construction by end 1999. Total expenditure under this programme was Rs.168 million during the year. These programmes were carried out with funds granted by the governments of the Netherlands and Norway. The Ministry of Fisheries and Aquatic Resource Development continued with the 'Divawara Gammana' housing programme for the benefit of fisher folk. During 1999, a total of 10 housing schemes with 1,131 housing units were completed under this programme at a cost of Rs.180 million. A sum of Rs.51 million was spent on infrastructure development. Construction work under the 'Sustainable Townships Programme' commenced to resettle an estimated 66,000 households living in slums and shanties in the Colombo city. (See Box No. 4)

In addition to the housing programmes implemented by the state agencies, financial institutions such as People's Bank (PB), Bank of Ceylon (BOC), State Mortgage & Investment Bank (SMIB), National Savings Bank (NSB), National Development Bank (NDB), Housing Development Finance Corporation of Sri Lanka Ltd. (HDFC) and some private commercial banks actively participated in granting housing loans for the construction of individual houses during 1999. According to the Quarterly Survey of Bank Advances, housing loans granted by all commercial banks for personal housing showed a net increase of Rs. 2,097 million during the year ending September 1999.

People's Bank approved housing loans to 18,170 applicants with disbursements amounting to Rs.1,246 million by end November 1999. The bank introduced two new housing loan schemes in 1999. A problem encountered by the bank in its housing programme was the unsatisfactory repayment of housing loans granted against EPF balances. The number of housing loans granted by the SMIB increased by 14 per cent to 10,173, while the value of loan disbursements rose by 36 per cent to Rs.1,700 million. Balancing the mismatch between lending and borrowing is a severe problem faced by the SMIB as the bank borrows mostly short-term and lends long-term. There has been a growing demand for housing loans provided by the NSB in 1999 largely due to relatively low interest rates (14.5 per cent). The total number of loans granted by the NSB recorded an increase of 48 per cent to 2,736. The value of housing loans granted during the year amounted to Rs.1,492 million, a more than two fold increase over the previous year. The HDFC granted 4,182 housing loans in 1999 as against 4,744 in the previous year. The value of housing loans at Rs.525 million was a marginal decrease of 1 per cent over the previous year. A special housing loan scheme, assisted by Ceylinco Insurance Co. Ltd. was introduced by the HDFC during the year under review. The high borrowing cost was the main problem faced by the

| ·   | Units Comm | enced (No.)    | Units Co | mpleted (No.) | Disburse | Disbursements (Rs.Mn.) |  |  |
|---|------------|----------------|----------|---------------|----------|------------------------|--|--|
| Sub Programme   | 1998       | 1999(a)        | 1998     | 1999(a)       | 1998     | <b>1999(a)</b>         |  |  |
| lana Udana Programme  | 16,083     | 26,308         | 9,010    | 12,464        | 177      | 285                    |  |  |
| Rural Housing Programme ;<br>Scattered Loan & Grant Programme | 23.102     | 53,606         | 19,933   | 19,440        | 211      | 410                    |  |  |
| Jrban Housing Programme                                       | 20,102     | 00,000         | 10,000   |               | 2,,      |                        |  |  |
| Scattered Loan & Grant Programme                              | 7,300      | 8,397          | 5,070    | 4,619         | 65       | 91                     |  |  |
| Estate Housing Programme                                      | 2,224      | 4,047          | 1,397    | 1,230         | 20       | 29                     |  |  |
| Direct Construction Programme                                 | 610        | 2,781          | 400      | 1,396         | 339      | 609                    |  |  |
| Disaster Housing Programme                                    | 62         | 3,393          | 2,351    | 2,426         | 25       | 56                     |  |  |
| isheries Housing Programme                                    | 2,029      | 675            | 1,646    | 650           | 49       | 6                      |  |  |
| Total   | 51,630     | <b>99.</b> 207 | 39,807   | 42,225        | 886      | 1,486                  |  |  |

TABLE 5.9 Public Sector Housing Programme

Box 4

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# Sustainable Townships Programme : A New Approach to Low Income Urban Housing

The availability of housing, particularly in urban areas has not kept pace with the growth in demand during the last two decades. The demand for housing has population and rapid urbanisation. The supply of houses has been constrained by low income levels of the majority of urban population, high land prices and lack of low cost housing finance facilities. According to the report of the Presidential Task Force on Housing and Urban Development (1996), there was an estimated shortage of 171,599 units by end 1996, of which 169,111 was in urban areas. The shortfall in urban housing could now be in excess of 200,000 units. As most of the housing programmes of successive governments have largely focussed on promoting housing for rural and urban middle class families, the housing problems of urban low income families, who live in slums and shanties, has become a serious economic, social and environmental issue. Privates sector property developers also mainly target the middle income and high-income categories, neglecting low-income groups. In order to deal-with this problem, a new approach called the Sustainable Townships Programme' (STP) was launched by the Ministry of Housing and Urban Development.

The shortage of housing in the City of Colombo is of great concern as it has a large impact on the socio-economic well being of the city's labour force and the environmental conditions in the city. The population density is rapidly increasing in Colombo City and it was nearly 19,000 persons per sq. km/ by. end 1996. In contrast, the population density in the whole country was 292 persons per sq. km The limited housing supplyhas led to the spread of slums and shanties all over the city on vacant public lands There were about 1,500 under served settlements in the Colombo City with 66,000 households in which about 51 per cent of the city's population lived. These settlements are spread over a land area of 963 acres occupying 11 per cent of the total land area of the Colombo City, which could otherwise be used for commercial, industrial and property development purposes. People living in these settlements have never had the legal right to their dwellings and could not find better shelter. The high cost of land and their inability to obtain long-term housing finance due to lack of collateral and low income levels are the major

The availability of housing, particularly in urban areas, treasons for that situation. Successive governments has not kept pace with the growth in demand during implemented a variety of programmes to serve these the last two decades. The demand for housing has settlers but the larger part of the housing problem of beenincreasing continuously due to the growth of south of south and rapid surbanisation. The supply of these deprived families urgently need decent homes as

a first step towards their social and economic empowerment. At the same time, the accommodation needs of the growing commercial, trading and other activities in the City of Colombo are also rising. The STP has been considered a financially viable, socially acceptable and environmentally friendly solution to these two critical problems.

The STP aims to re-house all 66,000 households currently living in slums and shanties in the City of Colombo in fully developed modern compact townships, without burdening the beneficiaries or the government, under the theme of 'Homes for people and lands for urban development'. Under this programme, it is intended to release all lands occupied by these settlers on a voluntary basis. Accordingly, about 11 per cent of the total land area in Colombo City will be released for development, of which, 8 per cent is considered to be commercially valuable lands. Out of the total lands to be liberated, about 300 acres (about, one third), will be utilised for the re-housing programme, while the balance will be redeveloped in accordance with urban development plans, which aim at promoting Colombo as the gateway to South Asia.

The STP is expected to be self-financing The lands freed from the re-housing programme will be utilised for urban and commercial development projects. Earnings from such developments will be utilised to finance the construction of more houses. In addition, the issue of real assets backed shares and securities to finance the programme is also under consideration. A trustee company is being formed for this purpose Meanwhile, the Treasury has granted Rs 100 million in 1999 to initiate the programme.

The STP will provide an opportunity to each of these under served families to become owners of a house in a condominium, with all basic facilities and worth over one million rupees, free of charge. The floor area of a house will be 300 - 400 sq. feet. The STP will be executed concurrently with the Colombo Metropolitan Regional Structure Plan (CMRSP), designed by the Urban Development Authority. As such, there will be no inconsistency between STP and

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CONSTRACTOR other urban development programmes. Infrastructure, facilities such as electricity, water supply, telephones and roads for the townships will be developed by respective utility agencies. In order to undertake the operational aspects of the programme and to guarantee its smooth navigation, a new company called Real Estate Exchange (Pvt.) Ltd. (REEL) has been formed with representations from key agencies, whose lands have primarily been encroached upon. Accordingly, the STP of the Ministry of Housing and Urban Development, Urban Development Authority\*(UDA), National Housing Development Authority (NHDA), Sri Lanka Land Reclamation and Development Corporation (SLLRDC) and Colombo Municipal Council (CMC) have become partners of REEL As the management arm of the STP, REEL will manage all the commercial as well as the construction aspects of the programme. Private sector developers and other specialised service agencies will directly participate in the construction of high rise flats for the beneficiaries. Almost all households, presently living in under-served settlements, have expressed their willingness to enroll in the programme. The government has pledged its a support by providing seed capital needed to initiate the programme.

The construction work in the first township, named "Sahaspura", commenced in September 1999 at Borella: About 700 households in 13 under-served settlements who have signed agreements with REEL

HDFC in expanding its housing finance programme. Meanwhile the Central Bank of Sri Lanka initiated a new housing loan scheme for low income families in urban and suburban areas with the financial assistance from ADB. The disbursement of loans is through Hatton National Bank and Commercial Bank. Families, with a monthly income below Rs. 8,500 are qualified to apply for loans under this programme. A maximum loan of Rs. 100,000 is granted for the purposes of constructing a new house, repairing an existing house, obtaining electricity and water supply facilities and construction of lavatories.

According to the Presidential Task Force Report on Housing and Urban Development, about 23 per cent of the annual housing requirement is expected to be satisfied by private sector property developers. Private sector participation in housing construction, particularly in urban housing, has been increasing during past few years. The

Contraction of the second will be given ownership of housing units in the first phase of the Sahaspura project. The total extent of the 'Sahaspura' is 140 acres. The first phasewill consist of 687<sup>th</sup>ousing units, a community hall, a day care centre and commercial and parking spaces. It will be ready for occupation by mid-2001. The Sahaspura Project is planned to commence in the first half of 2000 and a survey is being conducted at 'Minikelanipura'sin Totalanga.

Box 4 (contd.)

There are difficulties in implementing the programme in certain areas. Out of 66,000 slums and shanties, about 11,000 are located along the main roads, rail roads and canals. There is no economic value to these lands, although they are environmentally valuable. As REEL is operating purely on commercial principles, it cannot relocate these families under the STP. These households have to be served under other programmes.

The STP will promote the real estate exchange, mortgage backed securities markets and the construction industry. On the other hand, as the majority of the City's labour force is living in these under served settlements, the STP will certainly. improve their living standards and productivity. The sustainable townships programme, together with other urban development programmes, will help Colombo to be one of the more developed modern Urban City Centres in the new millennium.

Board of Investment (BOI) approved 25 housing projects during the year under review. Of these, 3 large housing projects to construct 4,000 housing units were in progress during 1999. The largest private sector housing project, consisting of 1,575 units at a cost of US dollars 24 million, located in Athurugiriya, commenced construction in April 1999.

# **Urban Development**

Development of urban infrastructure with a long term, integrated perspective has been emphasised with the launching a comprehensive urban development plan for the Colombo metropolitan region in 1999 and initiating such plans for other regions. The Urban Development Authority (UDA), the main institution responsible for preparing urban development plans, continued devising and implementing such plans in association with other relevant institutions, including local government authorities.

The Colombo Metropolitan Regional Structure Plan (CMRSP) prepared by UDA was approved in 1999. The objectives of the plan are to develop the City of Colombo as a core with facilities for commercial and office accommodation, while increasing economic activities, employment, standard of urban life and the housing supply in the area. The development of a transport network and the improvement and protection of the natural environment in the city are also objectives of the plan. Detailed planning, designing and feasibility studies were in progress with regard to the major projects identified in the plan. These objectives are to be achieved through the development of five 'Growth Centers' namely, Negombo, Gampaha, Biyagama, Homagama and Horana by providing a network of highways and railways and expanding infrastructure services in an environmentally sound manner. A Light Rail Transit (LRT) Project has also been proposed for Colombo under the CMRSP. Under the CMRSP, preliminary designs are being prepared by the UDA for the National Multi-modal Transport Centre covering approximately 20 acres in Pettah. This is an integrated development project which includes relocating the Manning Market at Orugodawatta, developing a Multi-modal National Transport Centre in Pettah, multi-storied parking structures and high rise building complexes for offices, commerce, recreation and housing. The successful implementation of the CMRSP depends on the allocation of sufficient financial resources by implementing agencies.

The UDA continued planning projects for the construction of administrative, commercial and industrial complexes, town improvement, housing, social and cultural purposes, industrial estates and environmental improvement. In addition, UDA provided technical assistance and supervision in the implementation of projects funded by other institutions including local government authorities. In keeping with the growing demand for integrated urban planning at the regional level, UDA took steps to open 8 sub-offices at district level.

The total expenditure on projects undertaken by UDA during 1999 amounted to Rs. 947, million of which Rs. 384 million was spent on the Urban Development Sector Project (UDSP). Under UDSP, development of infrastructure facilities in 17 small and medium size towns at a cost of US dollars 36 million was undertaken by UDA in 1999. ADB provided financial assistance for this project. UDA invested Rs.234 million or 25 per cent of its total investment on clients' projects. There were over 100 such infrastructure projects in progress during the year under review. Major clients' projects in progress during 1999 were the construction of the Speaker's residence at Battaramulla (Rs.57 million), Presidential Secretariat at Kotte (Rs.87 million) and a court complex at Getambe (Rs.26 million).

The UDA spent Rs.113 million (12 per cent of the total investment) for the development of administrative complexes. These included completion of the balance 7 floors of the administrative complex at Battaramulla (Rs.101 million) and the secretariat complex at Anuradhapura (Rs. 9 million). Total expenditure on the construction of commercial complexes amounted to Rs.63 million during 1999. The major commercial complex undertaken by the UDA was the hotel cum shopping complex at Kurunegala (Rs. 48 million). The UDA spent Rs.63 million for the completion of the industrial complex at Homagama in 1999. Under the town improvement project, a sum of Rs.38 million was spent on improving low cost housing schemes, public servants' housing schemes and middle income housing schemes and on the Dambulla and Balangoda towns development projects.

The first phase of the Beira Lake Restoration Project was in progress in 1999, under the Colombo Environmental Improvement Project (CEIP). In the first phase of the project, all illegal sewerage and industrial and domestic waste water outlets to the lake will be disconnected and reconnected to the legal drainage system. The National Water Supply and Drainage Board (NWS&DB) is the implementing agency for this project.

Total expenditure of the UDA increased by 22 per cent to Rs.947 million in 1999. The UDA was able to generate 38 per cent of its total expenditure internally. The balance was financed from the consolidated fund (31 per cent), clients (25 per cent) and loans from ADB (6 per cent).

#### Water Supply and Sanitation

Water supply and sanitation services expanded significantly during 1999, in terms of investment in this sector and new water connections. The NWS&DB, the main public institution responsible for expansion, improvement and distribution of water supply and sanitation facilities, operated 283 water supply schemes with about 500,000 connections during 1999. The NWS&DB delivered 316 million cubic meters (mcm) of water in 1999, which was a 6 per cent increase over 1998. While the number of new connections provided by the NWS&DB grew by 10 per cent to 55,188 in 1999 as several water supply schemes were completed during the year, total investment in this sector rose by 47 per cent over 1998.

Provision of safe drinking water and sanitary facilities has been given high priority in the government's development agenda. The government plans to provide safe drinking water for all within the next decade. However, this task is challenged by the rapidly growing demand for water on account of population growth, urbanisation and in particular, the growth of commercial and industrial activities. On the supply side, government invested about Rs. 15 billion in this sector during the last 5 years and provided 206,500 new water connections. According to the NWS&DB, about 66 per cent of the population has access to safe drinking water (defined as pipe borne water, tube wells and protected wells) at present. In the urban sector, safe drinking water is available to about 90 per cent, while in the rural sector, 51 per cent of the population has access to safe drinking water. According to the report on the Consumer Finances and Socio Economic Survey 1996/97 of the Central Bank, only about 31 per cent of the population has access to pipe-borne water. This proportion is 86 per cent in the urban sector, but 20 per cent in the rural sector. Access to pipe borne water in the estate sector is 75 per cent and is mainly provided through various micro water supply projects. This emphasises the need for further expansion of water supply facilities, particularly in the rural sector.

The NWS&DB is presently implementing about 46 water supply schemes at a total cost of about Rs. 29 billion financed by foreign as well as local funds. In 1999, the NWS&DB invested a sum of Rs.4,396 million in the water supply sector, an increase of 57 per cent over the previous year. Of the total investment made in 1999, 63 per cent was spent on new projects, while the balance was for rehabilitation of existing water projects. Foreign funding agencies such as IDA, ADB, OECF and ODA provided 43 per cent of the total investment on concessional terms. With financial assistance from ADB, NWS&DB launched the 'Small Town Water Supply Project' during 1999. The project covers the 6 districts, Kalutara, Kegalle, Hambantota, Anuradhpura, Puttalam and Moneragala. The project has two components, namely, the 'Small Town Water Supply (STWS)' component and the 'Village Water Supply (VWS)' component. Under the STWS component, feasibility studies are being carried out in respect of 25 small towns in the project area. Meanwhile, over 1,000 water supply schemes were identified for implementation under the VWS component. The NWS&DB commenced upgrading/rehabilitating 39 water supply schemes at a cost of Rs 2,625 million during 1999. An additional population of 1.5 million will benefit once these projects are completed. A total of 270 tube wells have been constructed by the NWS&DB during 1999 and over 35,000 people living in remote areas benefit from these tube wells. In order to overcome the problem of fluoride and iron in water in areas where most tube wells are constructed, flouride and iron removal units are now being developed to be introduced at the domestic level.

The NWS&DB continued implementation of the ADB assisted third Water Supply and Sanitation Project (WSSP) during the year. Under this project, water supply and sanitation facilities will be provided in the six districts, Anuradhapura, Kalutara, Kegalle, Hambantota, Moneragala and Puttalam. All rural water supply schemes implemented under this project are to be managed through the 'user centre' approach. Further, activities such as water resource management, leak detection of the water supply system, training and capacity building have also been undertaken as sub-projects. The total cost of the project has been estimated at Rs.7,019 million and foreign funds amounting to Rs.5,685 million have been secured from ADB, France and NORAD. The 'Towns South of Colombo Water Supply Project' has been designed to provide water supply to expanding towns in the suburban areas south of Colombo. About 82 per cent of the project had been completed by end 1999. The total project cost has been estimated at Rs.6,200 million. This project will benefit approximately 260,000 inhabitants in the project area. The 'Towns North of Colombo Water Supply Scheme' begun in 1999 and funded by OECF, covers the Ragama, Mahara, Welisara, Ja-Ela, Kandana and Ekala areas. The total estimated cost of the project is Rs.2,423 million of which Rs.59 million was spent in 1999. A population of 50,000 will benefit from this project once it is completed.

The Community Water Supply and Sanitation Project (CWS&SP), which commenced in 1994 and was funded by IDA, was successfully completed in 1999. The main objective of the project was to increase access to water supply and sanitation in rural areas and small towns and improve the quality of service delivery, using a sustainable, participatory, demand-driven development approach. The CWS&SP was implemented under 3 sub-projects, namely, the Village Water Supply and Sanitation Project, the School Water Supply and Sanitation Project and the Small Town Water Supply and Sanitation Project. The project area covered communities in Badulla, Matara and Ratnapura districts and rural areas in Colombo, Galle, Gampaha, Kurunegala, Matale and Nuwara Eliya districts. Under this programme, 847 water supply schemes were completed and water supply facilities were provided to 324,180 households by end 1999. Water supply and sanitation facilities have also been provided to 750 schools in the project area. After evaluation of the successful completion of the project, IDA has agreed to finance the second CWS&SP, the cost of which has been estimated at Rs. 6,832 million. Under the CWSSP II, the construction of 1,300 rural water supply schemes, 30 small town water supply and sanitation projects, 1,000 school water supply projects and 70,000 latrines is planned. With the objective of meeting the growing demand for water in the Greater Colombo area, the Kalu Ganga Water Supply Project has been initiated by the NWS&DB. The total cost of the project has been estimated at Rs. 6,200 million.

The Colombo Environment Improvement Project funded by the World Bank was in progress in 1999. This project has three main components, namely, the Beira Lake restoration Phase I, sewer network in Ja-Ela/Ekala and Ratmalana/Moratuwa industrial/residential areas and waste water disposal facilities for the above industrial/residential areas. The NWS&DB has been entrusted with the implementation of the project, while the Ministry of Urban Development, Housing and Construction handles the funding and administrative activities. The total cost of the Beira Lake restoration project is estimated at Rs.820 million. About 60 per cent of the physical work of the project had been accomplished by end 1999. Meanwhile, 20 per cent of the total physical work of the construction of the sewer network in the Ja-Ela/Ekala and Ratmalana/ Moratuwa industrial/residential area project had been completed during 1999.

The total revenue of the NWS&DB rose by 6 per cent to Rs.2,630 million in 1999. This increase in revenue was largely due to the expansion in the consumer network and upward revision of the water tariff in August 1999. The tariff applicable to the domestic sector was raised by 9 per cent to 27 per cent. With respect to industrial and commercial sectors, tariffs were raised by a lower rate of 9 per cent. The main objectives of the tariff revision were to recover a part of the increased cost of production, reduce the existing cross subsidies in the tariff system and to motivate people to conserve water by giving an economic value to water. Meanwhile, the operating and maintenance expenditure of the NWS&DB rose by 7 per cent to Rs.2,182 million in 1999. The NWS&DB reported a loss of Rs.115 million' after adjusting for depreciation and interest payments. Improvement of the billing system, reduction of the high level of unaccounted water resulting from leakage, unbilled consumption, illegal tapping and lack of regular maintenance are the major areas where greater attention is required to improve the productivity in the water supply sector. The NWS&DB has initiated a project named the 'Reduction of Non-Revenue Water' to improve service efficiency; in the Greater Colombo area at an estimated cost of Rs.2,681 million with foreign financing in order to reduce the unaccounted water from the present level of 42 per cent to 30 per cent by 2005. As an immediate step, NWS&DB commenced disconnection of stand posts and bath taps in tenement gardens in the Colombo city and instead, provided water connections to houses at subsidised rates.

With a view to improving the efficiency of the water supply sector and provision of water supply facilities in a cost effective manner, government intends to promote private sector participation. Private sector participation could be promoted on services contracts, management contracts, lease contracts or BOT contracts.

## Integrated Rural Development Programme

The Integrated Rural Development Programme (IRDP) commenced as a district programme in 1979 with a view to enhancing economic development in rural areas and to alleviate poverty by reducing the inter and intra district disparities through a balanced growth process. From 1989 onwards attention has been focused on the participation of the private sector in the programme. Since 1997, more emphasis has been placed on achieving sustainable employment and income generating activities to improve the living standards as well as to reduce poverty.

During the year, there were 17 projects spread over 15 districts. A total sum of Rs. 1,520 million was spent in 1999 compared with Rs. 1,502 million spent during the previous year. The expenditure incurred under UNDP funded Area Based Growth with Equity Programme (ABGEP), which commenced in the Uva Province during the previous year, amounted to Rs.103 million in 1999. Under this programme, investments will be directed towards the improvement of marketing infrastructure, particularly in the Welimada area where a wholesale marketing complex is to be established to help vegetable growers. As in the previous year, the ADB funded Southern Province Rural Development Project accounted for about one third of the total expenditure incurred under IRDP during the year.

### Samurdhi Programme

The Samurdhi programme continued in 1999 providing direct benefits to about 2 million families. The Samurdhi programme was introduced in 1995 with a view to alleviating poverty by improving conditions of poor families by strengthening the rural production base. Over the years, the programme has grown in a multifaceted manner, supporting the upliftment of the economic and social status of marginalised families. The participation of the beneficiary families in infrastructure and human development projects has shown progress. The Samurdhi Banking Societies have enhanced access to and availability of credit for poor families, while the saving and investment habits of the poor have been promoted. In spite of these favourable developments, the number of beneficiaries has not yet been reduced to a realistic level. When compared to the original target of 1.2 million, the number of families who are receiving benefits under the Samurdhi programme was about 2 million by end 1999. This accounts for about one half of the total number of families in the country. According to the Consumer Finances and Socio Economic Survey of 1996/97 of the Central Bank of Sri Lanka, the proportion of households with less than Rs. 3,700 per month was 20 per cent. The issue is not that the income levels have not increased, but the difficulty of identifying the most needy families. This has prevented the authorities

| Cash Grant                                 | 19                 | 195              | 1996               |                  | 19                 | 997              | 19                 | 998              | 19                 | 999                |
|--|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|--------------------|
| Amount (Rs.)                               | No. of<br>Families | Value<br>(Rs.Mn) | No. of<br>Families | Value<br>(Rs.Mn) | No. of<br>Familiës | Value<br>(Rs.Mn) | No. of<br>Families | Value<br>(Rs.Mn) | No. of<br>Families | Value<br>(Rs.Mn)   |
| Samurdhi Income<br>Supplementary Programme |                    |                  |                    |                  |                    |                  |                    |                  |                    |                    |
| Rs.1,000                                   | 35,430             | 425              | 24,843             | 298              | 17,913             | 215              | 14,359             | 172              | 12,043             | 145                |
| Rs 500                                     | 892,950            | 5,358            | 905,514            | 5,433            | 917,722            | 5,506            | 896,783            | 5,381            | 899,083            | 5,395              |
| Rs.200                                     | 268,843            | 693              | 313,273            | 752              | 328,960            | 790              | 323,710            | 777              | 329,588            | 791                |
| Rs.100                                     | 222,975            | 268              | 236,252            | 284              | 225,681            | 271              | 216,445            | 260              | 219,788            | 264                |
| Rs.250                                     |                    | -                | -                  | -                | 567,353            | 1,702            | 521,886            | 1,566            | 527,009            | 1,581              |
| Rs.125                                     | -                  |                  | -                  |                  | -                  | •                | • `                |                  | 142                | 0.2                |
| Total                                      | 1,440,198          | 6,744            | 1,479,882          | 6,767            | 2,057,629          | 8,484            | 1,973,183          | 8,155            | 1,987,653          | 8,175              |
| Dry Rations Programme                      |                    |                  |                    |                  |                    |                  |                    |                  |                    |                    |
| Rs. 336 -1260(b)                           | 107,036            | 1,260            | 180,204            | 2,101            | 159,849            | 1,769            | 125,343            | 1,400            | 154,932            | 1, <del>6</del> 94 |
| Nutrition Programme                        |                    |                  |                    |                  |                    |                  |                    |                  |                    |                    |
| Rs.100                                     | 32,183             | 40               | 66,509             | 80               | 66,908             | 80               | 81,225             | 97               | 80,718             | 97                 |
| Grand Total                                | 1,579,417          | 8,043            | 1,726,595          | 8,947            | 2,284,386          | 10.333           | 2,179,751          | 9,652            | 2,223,303          | 9,966              |

1999.

# TABLE 5.10

Samurdhi Welfare Programme (a)

No. of Beneficiary Families and value of Grants 1995 -1999

(a) The Samurdhi Programme commenced in June 1995. (b) As at end 1999

from increasing the benefits for the most needy families although the real value of the welfare payments has declined by over 32 per cent since 1995.

During 1999, the Samurdhi programme was in operation in all districts except those in the Northern Province where the programme was in operation only in the Vavuniya South Divisional Secretariat area. Initial steps were taken in 1999 to extend the Samurdhi Programme to the Jaffna District and all remaining divisions of the Vavuniya District.

A total of 1,987,653 families received direct benefits under the Samurdhi Income Supplementary Programme (SISP) during 1999. Out of this, 12,043 families (1 per cent) who are considered ultra poor received Rs. 1,000 per month. Another 899,083 families (45 per cent) received Rs. 500 per month. Meanwhile, Rs. 250 per month was paid to 527,009 families (27 per cent), who were mainly the former Janasaviya recipients. Depending on the number of members in the family and income, the rest of the families received Rs. 200 or Rs. 100 per month. The total cost for the SISP in 1999 was Rs. 8,175 million. In addition, 154,932 displaced families in the Northern and Eastern provinces received dry ration cards in 1999 at a cost of Rs. 1,694 million. Further, a total of 80,718 nutrition cards were also distributed among lactating mothers in poor families.

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The total cost of this programme was Rs. 97 million in

Under the Compulsory Savings Scheme (CSS), a sum of Rs. 5,212 million had been saved as at end 1999. Savings under the Samurdhi Voluntary Savings Scheme (SVSS), which motivates Samurdhi beneficiaries to save through small groups at the grassroot level, amounted to Rs. 401 million at end 1999. The number of small groups formed under the SVSS at end 1999 amounted to 227,796 with 1,223,243 members.

The system of Samurdhi Banking Societies (SBS), which promotes savings among the poor while improving their income levels by directing these savings for investments, is popular among participants. There were 893 SBS at end 1999. The total number of accounts opened since the commencement of the SBS stood at 1,205,895, with cumulative savings of Rs. 610 million at end 1999. Further, SBS provided 106,566 loans to the value of Rs. 524 million to its members during 1999. The average size of a loan was Rs. 4,920. The recovery rate of these loans was remarkably high (over 100 per cent) as borrowers tend to repay loans in advance. The Samurdhi Development Credit Scheme (SASANA) continued in 1999 assisting Samurdhi beneficiaries to commence and improve their existing income generating activities. A sum of Rs. 358 million had been granted to 74,283 borrowers under the ľ

The Samurdhi Leasing Project (SLP), which facilitates and provides income earning opportunities among targeted groups continued in 1999. Leasing facilities were provided to purchase assets such as agricultural equipment, business equipment and consumer durables. A total of Rs. 30 million had been provided to 147 leasing projects in 1999. Meanwhile, the Accelerated Credit Animator Project (ACAP) continued to operate in 40 selected Divisional Secretariats with the assistance of PB and BOC. The main objective of this project is to discourage Samurdhi beneficiaries from borrowing from the informal sector. A loan of Rs. 10,000 is granted to each credit animator and the animator in turn provides credit to needy people. The total number of loans granted under the ACAP was 30,411 and the value of the credit was Rs. 27 million at end 1999.

The Samurdhi Social Security Fund (SSSF), which was set up to assist beneficiaries to meet their urgent social expenses had collected Rs. 201 million as insurance premium during 1999. A sum of Rs. 109 million had been paid in respect of 52,047 claims during 1999. Under the Samurdhi Janatha Project (SJP), a total of Rs. 67 million had been granted for 598 projects during 1999. The objective of the SJP is to create employment opportunities in the agricultural sector to increase the agricultural production and income levels of the poor by way of improved irrigation facilities in relevant areas.

# 5.9 Environment

The stable macro-economic conditions that prevailed in 1999 with low inflation and reduced unemployment had a favorable impact on the environment. The income supplementary programme and the community development projects implemented under the Samurdhi programme has had a direct impact on improving the standard of living of the poor. A large number of housing units were constructed in the rural and estate sectors and a record number of water connections provided in 1999. Several urban development programmes were in progress during 1999. These programmes, while improving standards of living, have had great impact on mitigating environmental degradation.

Having recognised that unsustainable production methods can substantially reduce future productivity, environmental considerations have become an integral part of project formulation. The Ministry of Forest and Environment (MOFE) is primarily responsible for formulating environmental policies at the national level, while the Central Environmental Authority (CEA) functions as the regulatory authority.

The MOFE implemented several programmes aimed at conservation and environment management during 1999. The updated National Environment Action Plan (NEAP) was published in 1999. The MOFE has obtained Cabinet approval to ban the use of coral-based lime in the government construction industry. Action has also been initiated to control the environmental and health impact caused by the use and disposal of non-bio degradable waste (plastics). An action plan is being prepared to mitigate environmental degradation due to uncontrolled sand mining. The MOFE has developed a national strategy for solid waste management, which has been a major environmental problem, particularly in urban areas. A pilot project on waste management is being implemented in the Maharagama Pradeshiya Sabha area. The Ministry continued to implement the Basel Convention on Control of Transboundary Movement of Hazardous Wastes, the Montreal Protocol to control the use of ozone depleting substances and the United Nations Framework Convention on Climate Change (UNFCCC). Under the UNFCCC, an updated inventory of green house gas is being prepared. Meanwhile, a number of environment conservation projects were carried out under the NORAD Environmental Cooperation Programme. The Environment Action 1 Project, financed by the International Development Association (IDA), was in progress to strengthen the policy making and institutional capacity of the Environmental Division of the Ministry. In addition, the Ministry has carried out various programmes to create general public awareness on environment conservation and other related issues.

Meanwhile, the CEA, the main regulatory authority on environmental matters, processed 7 Environmental Impact Assessments (EIA) in connection with major development projects and 25 Initial Environmental Evaluations (IEE). An amendment to the National Environmental Act has been proposed to simplify the IEE procedures. During 1999, the CEA received 193 site clearance applications for the establishment of new industries but 24 of them were not recommended due to probable environmental consequences. These non-recommended industries were to be located outside industrial zones. Site clearances are now issued only for those industries, which are classified as high polluting in nature. The CEA continued to issue Environmental Protection Licences (EPL) to industries. The CEA processed 778 applications, of which 329 were for new EPL, while the balance were for renewals. Issuance of EPL for less polluting industries has been delegated to Local Government Authorities (LGAs). The CEA continued monitoring industries regarding discharge of effluents, air emissions and noise pollution. Accordingly, 488 effluent samples, 62 noise measurements and 4 dust level measurements were analysed during 1999.

The CEA received 1,229 public complaints against pollution and nuisance arising from industries and other miscellaneous sources. Out of the total complaints, 496 major complaints were investigated by the CEA, while the balance were referred to respective LGAs and other respective institutions for investigation. Under the programme to monitor the major water bodies in the country, water quality in the Beira Lake, Kandy Lake and Kelani River was monitored by the CEA on a regular basis to detect pollution trends. Further, the CEA is monitoring the ambient air quality using two fixed stations at the Fort Railway Station and the Meteorological Department premises and with a mobile station. Parameters such as levels of sulfur dioxide, nitrogen dioxide, carbon monoxide, ground level ozone and particulate matter in ambient air are monitored on a continuous basis using the fixed stations.