5. ECONOMIC AND SOCIAL OVERHEADS

5.1 Overview

A lack of infrastructure facilities has been highlighted as one of the major factors that has affected the external competitiveness of Sri Lankan products and constrained faster economic expansion in Sri Lanka. Resource constraints caused by the continuing military conflict in the North and the East since 1983 curtailed the development of key economic infrastructure sectors to a large extent. Public investment had gradually declined as a percentage of GDP from 13 per cent in 1985 to 5 per cent in 1997, resulting in a sharp deterioration in the quality and adequacy of the infrastructure base. A further fall in public investment may have adverse implications on future growth prospects as the overall investment ratio has not been growing sufficiently to facilitate a growth rate of more than 5 per cent per year in the next five years. This trend has been arrested to some extent in 1998. The government strictly adhered to maintaining capital expenditure as planned in the 1998 Budget despite a shortfall in revenue and increased security expenditure. Accordingly, public investment increased to 5.9 per cent of GDP in 1998, a significant increase compared to 1997. The 1999 Budget envisaged a further increase in public investment to 7.5 per cent of GDP in 1999. Nevertheless, the current level of investment is still below the required level, considering the dilapidated condition of some of the existing infrastructure and future economic needs. In this context, private sector participation in providing economic infrastructure has to be further encouraged within a clear medium-term policy framework and a well designed regulatory mechanism.

In 1998, both the public and the private sector made considerable investments in key infrastructure sectors. Despite the adverse developments in the global economic environment, private sector involvement in areas such as power, telecommunication and ports progressed further during 1998. The thermal power generating capacity was increased with the commissioning of a 51 MW power plant by Asia Power Ltd. at a cost of US dollars 62 million in 1998. In addition, negotiations had been completed in respect of 165 MW Combined Cycle Power Plant on a BOOT basis and a 60 MW Barge Mounted Power Plant on a BOO basis during the year. Further, Kool Air Ventures (Pvt.) Ltd. installed a 10 MW Diesel Power Plant at Kankasanturai on a BOT basis in order to restore the power supply in the Jaffna Peninsula. In addition, the CEB was evaluating proposals for the construction of a number of small hydro power projects by the private sector. The performance of Air Lanka Ltd. improved substantially with the divestiture of a 40 per cent of equity and the management to Emirates Air Lines during the year. A preliminary agreement between the Government of Sri Lanka and South Asia Gateway Terminal (Pvt.) Ltd. has been signed to develop the Queen Elizabeth Quay (QEQ) on a BOT basis at a cost of US dollars 240 million. The telecommunication sector further improved with increased private sector participation and improved efficiency of SLT due to reorganisation of the management of Sri Lanka Telecom (SLT) by NTT of Japan.

TABLE 5.1

Government Investment in Infrastructure

Year	Economic Services		Social Services		Total	
	Rs. Mn.	% of GDP	Rs. Mn.	% of GDP	Rs. Mn.	% of GDP
1985	18,950	11.7	1,826	1.1	20,776	12.8
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	32,481	3.6	11,552	1.3	44,033	4.9
1998	44,677	4.4	15,258	1.5	60,205	5.9

Source: Central Bank of Sri Lanka.

In 1998, public investment in key areas such as power, telecommunication, roads and ports expanded considerably, compared with the previous year. Investment in power generation, transmission and distribution grew sharply by 58 per cent. With the commissioning of new thermal power plants, the power generating capacity of thermal power plants grew by 4 per cent, reducing the reliance on hydro power to a level of 69 per cent in accordance with the policy statements made in 1998. The telecommunication sector grew rapidly, outpacing the growth of demand, and it is estimated that the waiting list for telephones will be eliminated by 2002. The total investment in the telecommunication sector, both private and public, amounted to Rs. 16,162 million in 1998. Consequently, the number of persons per telephone, including cellular and wireless phones, improved from 41 in 1997 to 27 in 1998. Efforts to maintain the national road network was strengthened considerably by the investment of a sum of Rs.5,783 million in 1998, an increase of 3 per cent over the previous year. Initial work on large road infrastructure projects such as the Matara – Colombo Expressway, Colombo – Katunayake Highway and the Outer Circular Road connecting major highways in Colombo, commenced in 1998. However, efforts to maintain provincial and local road networks are still at an inadequate level. Although measures have been taken to improve the scale of operations of the passenger transport sector, attention has not been given to maintaining the commercial viability of the industry and this may undermine the expected benefits of the restructuring programme of the transport sector in the foreseeable future. The prospects of the Colombo Port being a major hub in South Asia are severely threatened with the emergence of new ports in the region. This strongly emphasises the urgent need for the Colombo Port to expand its capacity while improving its operational efficiency too. In order to meet the expanding needs of the commercial and trading sector, the need for the speedier development of postal services is well recognised and draft legislation to restructure the Department of Posts has been prepared in 1998.

In order to maintain the sustainability of social sector achievements, ambitious reform programmes were executed in the area of health and education during the year under review. The need to improve the quality of education is well recognised and education reforms commenced in 1998. Under the health sector reforms, the priorities of the health sector were redirected, taking into consideration the emerging health needs of the society with an appropriate health care delivery strategy. Initial work on health reforms began in 1998. It is important to recognise that the allocation of adequate resources and timely implementation are crucial for the success of these reforms. In addition, direct private sector participation in both areas should be effectively encouraged in order to mitigate the fiscal burden as well as to improve the efficiency of the sector. Meanwhile, the Presidential Task Force on Housing and Urban Development emphasised and recommended the need to enhance the involvement of the private sector in providing housing facilities, with an appropriate strategy which would ensure adequate availability of finances and land. As emphasised in the previous years, there is also a vital need to confine the benefits of the government's welfare programmes to the most deserving.

5.2 Health

Sri Lanka's health indicators compare favourably with those of developed countries mainly due to the heavy investment by the government, especially in the health sector and in other welfare activities in general, during the past few decades. Successive governments, since independence, have maintained a fairly high level of expenditure varing in the range of 1 - 2 per cent of GDP on the health sector. This has improved the access to health facilities even in rural areas. The continuous government involvement in poverty reduction programmes also contributed to improving the health conditions of the population. However, the sustainability of these achievements in the health sector has been threatened by emerging health hazards due to changing life styles, demographic transition, poor environmental conditions and weaknesses in the existing health care delivery system. The situation is further aggravated by the large number of casualties in the on going military conflict. A marked increase in mental disorders, traumatic injuries, poisoning and suicides has also been seen. Meanwhile, health problems related to an aging population will be most crucial in the next two decades. According to various population projections, the old age population (60 years and over) in Sri Lanka will gradually increase from 9.1 per cent in 1995 to 21.5 per cent in 2030. This increase in the old age population will lead to an increased demand for health care services for cardiovascular, neurological, cancer and rheumotological diseases and other common physical and mental problems of the aged. There is an urgent need to redirect the priority in the health sector with an appropriate strategy for expanding health care delivery. This need has been well recognised and the Presidential Task Force (PTF) on the health sector, appointed in 1997, has made specific recommendations to address these issues.

A Health Sector Reforms Implementation Unit (HSRIU) was formed in January 1998 to co-ordinate and facilitate the implementation of recommendations made by the PTF. Within the broad aim of the health policy of Sri Lanka, i.e., to increase life expectancy and improve quality of life, the immediate focus of the government is to address health problems like inequities in the provision of health service, the problems of the elderly and disabled, the increase in non-communicable diseases, accidents, suicides and substance abuse. In order to address these issues, five thrust areas have been identified for immediate implementation from a series of recommendations made by the PTF. They are: improvement of one hospital in each district, expansion of the health services to cover special needs (such as the elderly, disabled, war victims, mental health, estate health etc.), development of health promotional programmes with special emphasis on revitalising school health programmes, reformation of the organisational structure of the health sector and resource mobilisation and management including alternative financing mechanisms, resource sharing between the private and public sectors and rationalising human resource development.

During 1998, initial steps were taken by the HSRIU to address community health needs, through the setting up of day care centres, preparation of a plan of action for elderly persons affected by the armed conflict and the disabled, development of the mental hospital as a teaching hospital complex and decentralisation of mental health care. Development work in the Polonnaruwa hospital has already commenced under the programme to set up at least one well-equipped hospital in each administrative district. In order to strengthen the dental services, 40 new dental clinics have been opened in various regions. In accordance with the recommendations made by the PTF, 50 estate hospitals have been identified to be taken over by the government and two of these have already been acquired. A programme has also commenced to train 15,000 volunteers to promote community health care. For effective implementation, broad recommendations will have to be broken into clearly defined tasks assigned to identified persons, committees or institutions, along with a specified time frame in which to perform such tasks. In particular, problems that can be addressed in the short-term must be separated from those that need long-term solutions. It would also be useful to identify expenditure estimates and funding sources for each of the activities.

The number of government hospitals practising Western medicine increased to 550 with the opening of a Dental Teaching Hospital at Peradeniya and the acquisition of 2 estate hospitals in 1998. The number of hospital beds per 1,000 population improved to 2.9 from 2.8 in 1997. In addition, there were 389 central dispensaries by end 1998. The health sector manpower stands at 69,369, of which 5,104 were recruited during 1998. The number of doctors including Assistant Medical Practitioners (AMPs) and Interns, at 6,981, works out to 3.7 doctors per 10,000 people, up from 3.4 in 1997. Although the nursing staff has increased in absolute terms, the number of nurses per 10,000 population decreased to 7.7 from 7.8 in 1997. Inadequate nursing staff has been disturbing inpatient services in hospitals for a number of years. The private sector health care service also greatly suffers from a lack of qualified nurses. To address these issues, the government recruited 1,553 persons to nursing schools in 1998 to be trained as nurses. At the same time, the construction of a new nurses' training school at the Sri Jayawardenapura hospital also commenced in 1997. The shortage of qualified para-medical staff, both in government and private hospitals, hinders the effective treatment of patients. During 1998, only 42 para-medics were recruited to government hospitals. However, a record 1,100 persons have been enrolled for training during the year. Adoption of a long-term plan to train health personnel is required as the demand, particularly for nurses, para-medics and technicians, is growing fast.

TABLE 5.2
Public Health Services

Item	1996	1997	1998 (a)
Hospitals(practising Western Medicine) (No.)	540	547	550
No. of Beds	52,613	52,635	53,737
Central Dispensaries(No.)	377	371	389
Total No. of Doctors	4,391	4,956	5,611
Total No. of Asst.Medical Practitioners	1,464	1,380	1,370
Total No. of Ayurvedic Physicians	14,808	15,078	15,359
Total No. of Nurses	13,846	14,399	14,463
Total No. of Attendants	5,758	6,650	6,717
Number of In-Patients('000)	3,339	3,453	n.a.
No. of Out - Patients ('000)	35,348	39,503	n.a.
Total Health Expenditure (Rs.Mn)	11,913	12,135	14,419
Current Expenditure (Rs.Mn)	9,260	9,581	10,089
Capital Expenditure (Rs.Mn)	2,653	2,554	4,330

(a) Provisional.

Sources: Ministry of Health and Indigenous Medicine
Central Bank of Sri Lanka

Efforts to improve primary health care services, particularly in remote areas, continued during the year under review. The 'Suva Udana' health service programme aimed at providing preventive and curative health services to underserved areas of the country through specialist services was held in ten areas during 1998. The National Immunisation Day for Polio Eradication was held for the fourth successive year. The country has already achieved its global target (90 per cent) of immunisation coverage of infants against six vaccine-preventable diseases. Meanwhile, dengue haemorrhagic feve showed an increase in incidence. During 1998 there were 227 confirmed dengue cases, compared to 193 confirmed cases in 1997. A Dengue Control and Preventive Week from 22 to 29 June 1998 was declared. The outbreak of cholera, which commenced in 1997, continued in 1998. The outbreak commenced in the Puttalam District and in 1998, most of the cases were reported from the Puttalam, Kurunegala, Moneragala and Polonnaruwa districts. The main reasons for the spread of cholera were lack of safe drinking water and sanitary facilities and poor personal hygiene. There was no significant change in the incidence of Japanese encephalitis during 1998. However, immunisation of children between 1-10 years against the disease was continued during the year. Despite the control activities undertaken, the incidnece of Malaria remained high. However, the number of Positive cases reported duting 1998 dropped marginally to 211,691.

Total government expenditure in the health sector was Rs.14,419 million in 1998, indicatding an increase of 18 per cent over the previous year. In relation to GDP, expenditure rose from 1.3 per cent in 1997 to 1.4 per cent in 1998. The capital expenditure of the government on the health sector at Rs. 4,330 million reflected an increase of 70 per cent. Construction work of the National Nurses Training School at Sri Jayawardenapura, at a cost of Rs.723 million, was in progress in 1998. Construction work is scheduled to be completed by mid-1999 and the first batch of 100 nursing students will be recruited during the same year. A ten-storied building complex with 390 beds for the Lady Ridgeway Hospital is under construction with financial assistance from China. The estimated total cost of the project is Rs.320 million and the construction work is scheduled to be completed by the end of August 1999. With Korean financial assistance, steps have been taken to improve the patient care services of the Gampaha and Negombo Base Hospitals at a cost of Rs.225 million and to provide basic medical equipment to peripheral hospitals at a cost of Rs.300 million in 1998. The Government of France has granted a soft loan of Rs.170 million for improving the cardio-thoracic unit at the Kandy Teaching Hospital. The IDA/World Bank funded Health Service Project, which commenced in 1997, continued in 1998. A large quantum of funds under the project has been allocated for malaria eradication (Rs.252 million), STD/AIDS (Rs.603 million), nutrition

(Rs.200 million), non-communicable diseases (Rs.31 million) and for health education services (Rs.174 million). The total cost of the project is estimated to be Rs.1,490 million. The Health and Population Project funded by the ADB for improving the health care delivery system in the North Central, North Western and Central provinces and in the Kalutara District was nearing completion in 1998. Most activities financed by foreign funds were for those activities identified under the health sector reforms. Therefore, timely and efficient utilisation of foreign resources within the stipulated time frame will be necessary for the health reforms to be productive.

Private Sector Health Care

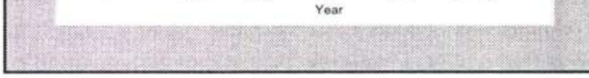
The private health services sector is made up of a network of private hospitals, nursing homes and private general practitioners. The government has recognised the importance of developing the private sector health services in parallel with its own free health service in order to meet the growing demand as well as to guarantee easy access to quality health care. Accordingly, the government has provided various incentives in the form of duty exemptions for the import of medical equipment, tax concessions for investments in two tier private hospitals and the provision of free land etc. in order to encourage private investment in the health sector. At the same time, all BOI approved hospital projects are eligible to receive BOI concessions. Further, an appropriate public-private mix in the delivery of health services has been emphasised in the health sector reforms. The decision of Indian Hospitals Corporation, the owners of the Apollo Hospital Group of India, to establish a hospital in Sri Lanka at an estimated cost of Rs. 2,000 million is an important development in this sector during 1998.

According to Health Ministry sources, there are about 120 private hospitals with a bed capacity of about 2,500. As one of the major problems in assessing the coverage and performance of the private sector health services is the lack of information about the service providers, the Central Bank conducted a postal survey among 70 selected hospitals in order to collect data on private hospitals. A total of 36 private hospitals, including all major private hospitals in Colombo, responded to the questionnaire. The total bed capacity of these hospitals had improved marginally to 1,600 during 1998. The number of inpatients and outpatients had increased by 4 per cent and 20 per cent, respectively, to 72,616 and 1,202,922, respectively during the year under review. There were 136 permanent doctors, 1,057 visiting doctors and 185 part-time doctors working in these hospitals at end 1998. The nursing staff of these hospitals had expanded by 4 per cent to 970, while the para-medical staff had risen by 5 per cent to 345 during the year. Almost all hospitals provide specialist consultation services.

Many private hospitals that were surveyed had stated that further expansion of their services has been restricted largely by the lack of suitable land for extension. Small private hospitals find it difficult to compete with larger hospitals as these enjoy BOI concessions on their investments. At the same time, patients, particularly those whose medical expenses are borne by their employers, prefer to go to larger hospitals with modern facilities in Colombo, rather than go to small hospitals located elsewhere. Almost all private hospitals suffer from a deficiency of trained nursing and technical staff. Although the government has recognised the need for training health personnel for the private sector, there is still no proper plan in place to address this issue.

Neither the Ministry nor any other institution has been empowered with the necessary authority to regulate the private sector health institutions and their activities. The Ministry of Health and Indigenous Medicine has recently created a separate unit within the Ministry to oversee the activities of the private sector health services. However, the functions of the unit have been largely restricted, as the necessary legal authority has not yet been established. The proposed Act for monitoring, regularising and supervising private health institutions is still under preparation. In any event, establishment of a regulatory and monitoring authority for the private health sector is a pressing need to guarantee quality health care facilities for the public at an affordable price, in a situation where the number of private institutions engaged in the provision of health services is rapidly increasing.

Chart 5.1
Expenditure on Health and Education



5.3 Education

A continuous improvement in the quality of education is a pre-requisite to meet the challenges of a fast moving and competitive global economic environment. The present education reforms are considered to be an initial step to address this challenge. In particular, they are aimed at reducing the mismatch between educational attainments and the opportunities available in the labour market. Various reforms have been introduced from time to time to address this situation, but have failed to reach the expected goals because of the piecemeal nature of such efforts. A comprehensive reform programme, covering all sections in the education system, has emerged as an urgent necessity. Hence, reforms are being introduced in general education, university education, technical education and vocational training sectors in order to meet this challenge.

General Education

In 1998, 15 new schools were established and the total number of government schools reached 10,373, with a student population of 4,143, 442. On average, there was one school per 6.3 sq. km., with about 399 students per school. There were 188,200 teachers resulting in a student-teacher ratio of 22. About 26 per cent of teachers were graduates, while the rest were mostly trained teachers, certified teachers and uncertified teachers who had GCE (O/L) and GCE (A/L) qualifications. Total government expenditure on education, including related infrastructure, amounted to Rs. 26,694 million in 1998. This was an increase of 19 per cent as compared with the previous year. In relation to GDP, total expenditure on the education sector rose from 2.5 per cent to 2.6 per cent in 1998. The resource requirement in the education sector would be larger in the future as the proposed reforms require new equipment for practical education, a trained teacher network, library facilities etc.

Several foreign funded projects in the education sector were in operation during the year. These included (a) the General Education Project II funded by the International Development Association (IDA) at a cost of US dollars 83.4 million, (b) the Secondary Education Development Project funded by the Asian Development Bank (ADB) at a cost of US dollars 40.7 million, which includes building new classrooms, science laboratories and extending available space in schools and setting of computer centres, (c) the Primary School Development Project funded by the Swedish International Development Agency (SIDA) at a cost of Rs. 404 million, which aims at improving the quality of primary education in rural areas, increasing the enrollment for primary education and reducing dropouts (d) the SIDA funded Estate School Development Project, which aims at developing 484 schools out of the total of 833 schools in the estate sector by giving priority to the qualitative development of education in these schools, (e) the Teacher Education and Teacher Deployment Project, with IDA funding of US dollars 79 million and (f) the Primary Mathematics Project and the Primary Education Planning Project with partial assistance from the Department for International Development (DFID) in the United Kingdom.

The project for the development of schools at Divisional Secretariat (DS) level continued in 1998. The objective of the project is to develop at least two selected schools at DS level to meet the growing demand for popular schools. These selected schools are provided with various facilities including class rooms, laboratories, technical units, libraries and other infrastructure facilities including water, electricity and play grounds. The estimated cost of the project is Rs. 2,100 million. The development of 317 schools has commenced under the first phase of this project. There were 270 National Schools operating in all provinces at end 1998, compared to 249 schools at end 1997. A plan has been drawn up to provide computer training for 150,000 students per year in 150 computer centres by the year 2000. The cost of setting up one center is estimated at Rs. 3 million and 72 units have already been set up in 1998, with a capacity to provide training for 60,000 students per year.

Several measures were introduced during 1998 to improve the training of teachers. Accordingly, the National Authority for Teacher Training was formulated in 1998, under the National Teacher Education Act No. 32 of 1977, to accelerate teacher education. The number of Colleges of Education is to be increased from the current 11 to 14 in the future. Introduction of new courses and increasing student teacher enrollments are among the major objectives of this effort. However, the enrollment for the courses conducted by the Teacher Training Schools indicates a decline, since the preference is for distance mode teacher training programmes conducted by the National Institute of Education (NIE). A programme for providing foreign training in various important areas of education for teachers, principals, teacher educators, education administrators and officers in the NIE has been implemented.

The government spent Rs.1,989 million for the provision of free school uniforms, school text books and season tickets during 1998. A new School Library Service Unit has been set up under the Education Service Division of the Ministry of Education to promote library facilities in schools and educational institutions.

Although resource limitation is considered the major constraint to the development of the education sector, it has been observed that on some occasions, even the available resources have not been utilised as planned. The utilisation rates of the funds under the two ongoing IDA funded projects, i.e. the General Education Project II and the Teacher Education and Teacher Deployment Project, have not been satisfactory. Efforts need to be intensified to complete the existing projects and to ensure that resources available under these projects are utilised effectively.

There are a number of officially approved/certified private schools, international schools, private tutories and private pre-schools operating in Sri Lanka as non-state education institutions. The number of approved/certified private schools in 1998 increased to 79 from 75 in 1997. The student population of these schools was 91,536 as at end 1998. These private schools generally follow the same curricula as government schools and prepare students for examinations conducted by the government. The international schools prepare their students mainly for different types of foreign examinations. There were 34 international schools registered with the Registrar of Companies as at end 1997. Based on the recommendations made by the National Education Commission (NEC), the Ministry of Education is preparing a comprehensive Education Act which will incorporate laws for the regulation of international schools, to ensure that they maintain standards and quality. As pre-school education has also grown significantly over the years, a streamlined system in order to improve the quality of pre-school education appears necessary. This should include the opening up of training facilities for pre-school teachers and the specification of required qualifications. These facilities should be developed in urban as well as in rural areas.

TABLE 5.3

General and University Education

Item	1996	1997	1998 (a)
General Education			
1. Total Schools (No.)	10,936	10,983	11,007
1.1 Government Schools	10,312	10,358	10,373
National Schools	238	249	270
1.2 Other Schools	624	625	634
Private	79	75	79
Pirivenas	545	550	555
2. Pupils (No.)	4,265,076	4,260,989	4,286,894
2.1 Government Schools	4,132,749	4,124,125	4,143,442
2.2 Other Schools	132,327	136,881	143,452
Private	86,707	85,890	91,536
Pirivena	45,620	50,991	51,916
3. New Admissions	322,686	353,639(a)	353,047
4. Teachers (No.)	193,720	187,539	196,476
4.1 Government Teachers	185,842	179,589	188,200
4.2 Others	7,878	7,950	8,276
5. Pupil/Teacher Ratio (Govt. Schools)	22	23	22
6. Total Expenditure on Education (Rs. Million) (b)	20,402	22,329	26,694
6.1 Current	16,018	17,737	20,582
6.2 Capital	4,384	4,592	6,112
University Education			
1. Universities (No.)	12	12	12
2. Students (No.) (c)	32,800	34,139	38,192
3. Lecturers (No.) (d)	2,808	2,927	3,050
4. Graduates (No.)	5,216	6,738	n.a
4.1. Arts and Oriental Studies	1,999	2,513	n.a
4.2. Commerce & Management Studies	999	1,219	n.a
4.3. Law	160	182	n.a
4.4. Science	844	882	n.a
4.5. Engineering	403	496	n.a
4.6. Medicine	505	1,022	n.a
4.7. Dental Surgery	58	56	n.a
4.8. Agriculture	165	201	n.a
4.9. Veterinary Science	27	36	n.a
4.10. Architecture	23	58	n.a
4.11 Quantity Surveying	33	72	n.a
5. New Admissions for Basic Degrees (No.)	8,663	9,787	10,450

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

(a) Provisional
(b) Includes government expenditure on higher education too.
(c) Excluding the Open University of Sri Lanka
(d) At the beginning of the year.

Higher Education

In 1998, 12 national universities, 6 post graduate institutes and 5 other institutes, namely the Institutes of Aesthetic Studies, Computer Technology, Indigenous Medicine, Gampaha Wickramarachchi Ayurveda and Workers' Education, were functioning as institutes of higher education. There were 38,192 university students in 1998. The number of new entrants to the universities increased by 14 per cent to 10,450. This was only 15 per cent of the total number of 70,379 students who satisfied the minimum requirements for university entrance and only about 7 per cent of the students who sat for the GCE (A/L) examination. The enrollment of both full time and part time students in post graduate courses was about 6,500. The Open University of Sri Lanka (OUSL) had an enrolment of about 19,500 students to follow its courses through the distance mode of education. About 91,000 students had registered for external degrees at the Kelaniya, Peradeniya, Sri Jayawardanapura, Ruhuna and Eastern universities. Several universities added new courses to their programmes during 1998. The OUSL introduced a degree programme in Primary Education. The University of Kelaniya introduced a post graduate course in Mathematics. The University of Colombo commenced a degree programme in Pharmacology. The University Grants Commission (UGC) has formulated an Inter-University Committee for teaching English.

The Prohibition of Ragging and Other Forms of Violence in Educational Institutions Act No. 20 of 1998 was introduced in 1998. The backlog which arose as a result of the long-term closure of universities due to the political disturbances during 1987-89 was being cleared, thereby enabling the universities to follow their normal work programmes. This was possible due to the continued supply of additional resources by the UGC to hire staff on a temporary basis and to obtain other facilities. The establishment of new universities also helped to ease this situation.

Steps were taken to improve infrastructure relating to higher education. This included the continuation of the development of hostel facilities and expansion of university space. The target is to provide hostel facilities for 75 per cent of the student population by 2000. The number of students who received Mahapola Scholarships in 1998 increased to 23,500 from 19,900 in 1997. In addition, Government Bursaries were given to other eligible students. The amount of the assistance provided varies from Rs.1,150 to Rs.1,300 and is provided for a period of ten months in a year.

The need to change university education has also been emphasised in the National Education Commission Report.

A Presidential Task Force appointed in March 1997 has made recommendations to address the weaknesses in university education. The proposals cover important areas such as the expansion of university education, curricula reform, quality assurance, staff development, career guidance, counseling and finance. The implementation of the proposals commenced in 1998.

Under these reforms, the number of universities will be increased to 14 by setting up two new universities in the Wayamba and Uva provinces to improve the regional dispersion of universities. Initial steps have already been taken to set up the Wayamba University. Subsequently, the number of students admitted to universities will be gradually increased to 15,000 in the academic year 2000/2001. Action has also been taken to convert courses into a unit system. Accordingly, there will be assignments, practical work, projects, workshops etc. in addition to the written examinations held at the end of the year. Further, newly recruited lecturers will undergo a programme on teaching techniques at Staff Training Units (STUs). Three such units have already been set up at the Universities of Colombo, Peradeniya and Kelaniya. Other universities are also expected to set up STUs. In addition, there are Career Guidance Units (CGUs) set up in 5 universities, namely, Sri Jayawardanapura, Colombo, Kelaniya, Jaffna and Peradeniya. The main objectives of these CGUs are to provide assistance in career development to graduates and to help them to find employment.

Technical Education and Vocational Training (TEVT)

TEVT has become a more important sector in the context of recent developments in the labour market. As a result, there is a vital need for restructuring and expanding the traditional ways of providing technical and vocational training in accordance with the emerging demand. As the university education opportunities are very limited and highly competitive, this sector can provide an alternative route of development not only to school dropouts, but also to those who have completed the usual period of secondary education. It can also help to improve the skills of those already employed in low skilled jobs, and help them to improve their jobs or commence self-employment. The importance of TEVT has been identified by the NEC and the Presidential Task Force has made proposals for the upliftment of this sector.

The Department of Technical Education and Training (DTET), being a premier provider of training in this sector, extended its services through 36 Technical Institutions and a staff of 1,562, which comprised 623 academic staff (lecturers/instructors) and 939 administrative staff. The total number of students enrolled for various courses at the DTET was 14,981 as at end 1998. The certificate courses in Business Studies and Technical courses attracted a large number of students (71 per cent). Students also followed trade courses, other diploma courses and short-term courses. The Sri Lanka Institute of Advanced Technical Education conducted courses in Engineering, Accountancy, Commerce and Agriculture. The total intake of students to this institute was 2,206 in 1998. The Vocational Training Authority also enrolled 18,316 students for 92 courses during the year. In addition, a total of 22,626 students were enrolled in about 180 courses, including situational trades at the National Apprentice and Industrial Training Authority.

There is a need to improve the quality of training through reorientation of the programmes to suit current changes in this sector. To this end, existing facilities should be expanded with newer facilities to accommodate a greater number of students to follow courses. New courses in the areas of Hotel and Tourism, Textile and Garments, Construction, Gem and Jewellery, Information Technology, Computer Training and Printing etc. may be introduced as there is a greater demand locally as well as in foreign countries for persons qualified in these areas. Necessary steps should be taken to expand TEVT into rural areas, enabling students in those areas also to benefit from this training.

The objectives of the on-going education reforms are ambitious. Their success will be known only after several years. A continuing weakness in the education sector policies is that no attempt has been made to do away with the public sector dominance in the sector. While a public sector presence in the provision of education services is seen even in developed countries, there the private sector also plays a major role. Mobilising private sector resources for the development of university and technical education, as well as direct private participation in the provision of these services should be effectively encouraged. Formal links and staff and student exchange programmes with reputed foreign academic institutions/technical colleges would also help in strengthening educational reforms. The idea of 'Career Guidance Units' is a welcome development. This scheme needs to be promoted through regular dialogue between the private sector and university/technical college management and academic staff, which will help in the identification of labour market requirements and prepare students to meet these requirements.

Parents as well as students must be clearly aware that, in the future, the public sector will not be able to provide employment opportunities for a majority of new entrants to the labour force. Resources are limited, particularly in the public sector and hence the relative size of the public sector will shrink in the development strategy, which aims at accelerating economic growth through greater private sector participation. It is only through a coherent collective effort by all parties concerned, i.e., the government, teachers, managers, students and parents and the private sector, that the education system can be reformed to meet the challenges of the future.

5.4 Communication Services

The Postal Service

The formulation of a comprehensive restructuring programme for the Postal Department (PD) was underway in 1998 with the assistance of the Universal Postal Union and the World Bank. The draft legislation has already been prepared for this purpose. Under the restructuring programme, the PD is expected to be converted into a Postal Corporation, named the Sri Lanka Postal Corporation, with greater autonomy to function as a commercial organisation. The new postal corporation is expected to carry out normal postal services as well as value added and ancillary services in an effective manner. A reliable and efficient postal service is essential for speedier development of trade and commerce.

During 1998, the post office network expanded from 4,313 to 4,362 post offices, mainly due to an increase in private post offices and Rural Agency Post Offices (RAPO). RAPO were first introduced in 1996 with the assistance of Co-operative Credit and Thrift Societies (Sanasa) to expand the postal services further into rural areas. Since then, the RAPO network has expanded by adding 76 new post offices connecting remote areas. Consequently, the area served by a post office has decreased to 15 sq. kms. The population served by a post office has also dropped marginally to 4,304 at end 1998.

The domestic postal services also expanded significantly with the restoration of postal services in the Jaffna peninsula. At end 1998, there were 30 main post offices and 131 sub-post offices operating in Jaffna. Meanwhile, the foreign parcels office was decentralised with the opening of two foreign parcel offices in Kandy and Galle. Similarly, the mail

TABLE 5.4
Growth of Postal and Telecommunication Services

Item	1996	1997	1998(a)	Percentage Change 1997	Percentage Change 1998 (a)
1. Postal Service					
Delivery Areas (No)	6,729	6,729	6,729	0.0	0.0
Post Offices (No)	4,252	4,313	4,362	1.4	1.1
Public	4,032	4,034	4,036	0.0	0.0
Private	203	216	250	6.4	15.7
Rural Agency Post Offices	17	63	76	270.6	20.6
Area Served by a Post Office (Sq.Km)	15.5	15.3	15.0	-1.3	-2.0
Population Served by a Post Office	4,339	4,326	4,304	-0.3	-0.5
Letters per Inhabitant	27	24	23	-11.1	-4.2
2. Telecommunication Service					
2.1 Sri Lanka Telecom Ltd. (SLTL)					
No. of Telephone Lines in Service (No.)	254,500	315,241	455,598	23.9	44.5
New Telephone Connections Given(No.)	50,170	72,457	143,075	44.4	97.5
Applicants on Waiting List (No.)	270,800	284,876	224,441	5.2	21.2
Expressed Demand for Telephones (No.)	525,300	600,117	680,039	14.2	13.3
Telephone Density (Telephones per 100 persons)	1.39	1.69	2.43	21.6	43.8
2.2 Other Private Sector					
Cellular Phones					
Operators (No.)	4	4	4	0.0	0.0
Subscribers (No.)	71,028	114,888	174,202	61.8	51.6
Total Cumulative Investment (Rs. Mn.)	5,307	6,870	8,842	29.5	28.7
Public Pay Phones					
Operators (No.)	4	4	5	0.0	25.0
Telephone Booths (No.)	2,152	2,571	4,610	19.5	79.3
Total Cumulative Investment (Rs. Mn.)	610	718	1,090	17.7	51.8
Radio Paging Services					
Operators (No.)	5	5	5	0.0	0.0
Subscribers (No.)	10,721	10,829	10,511	1.0	-2.9
Total Cumulative Investment (Rs. Mn.)	221	222	222	0.5	0.0
Data Communication Services					
Operators (No.)	7	8	8	14.3	0.0
Subscribers (No.)	355	11,745	19,019	3,208.5	61.9
Total Cumulative Investment (Rs. Mn.)	574	665	768	15.9	15.5
Wireless Local Loop Telephones					
Operators (No.)	2	2	2	0.0	0.0
Subscribers (No.)	527	26,381	67,931	4,905.9	157.5
Total Cumulative Investment (Rs. Mn.)	1,743	6,796	9,291	289.9	36.7

(a) Provisional

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

delivery service operated by the Central Mail Exchange has been decentralised to post offices in Borella, Kotahena, Slave Island and Wellawatte.

The total number of postal articles handled by the PD dropped by 3 per cent during 1998, mainly due to labour disputes that prevailed for about two months between March and May. As a result, the average number of letters per inhabitant per year dropped to 23 in 1998 from 24 in 1997. The handling of foreign letters and parcels also dropped by 4 per cent to 65 million articles during 1998 for the same reason. With the expansion of modern communication facilities such as e-mail, internet, facsimile and IDD facilities, particularly for international communication, the use of the traditional letter post is becoming less attractive. Private sector courier services were also becoming popular, especially among financial and commercial organisations.

The PD continued to expand and improve its value added services during 1998. The post fax services were extended to cover 177 post offices by end 1998. This facility expedites the transactions of the post office savings scheme. The bulk mail facility was also extended to 60 business organisations in Colombo by end 1998. The fax money order service was available at 98 post offices. The International Expedited Mail Service (EMS) handled 77,575 mail articles, reflecting a 27 per cent growth during the year. However, the Speed Post Service displayed no progress during 1998. The post code numbering system has been introduced to all post offices and sub-post offices. An awareness programme to promote the use of the post code system is in progress. The PD is taking steps to provide e-mail and internet facilities through post offices. Initially, main post offices in major towns will be connected with e-mail and internet. As a result of the rationalisation of the free postage facilities provided to government ministries and departments, the volume of free mail has substantially decreased, while at the same time, accountability in the use of free postage has increased. A proposal has been made to automate post office counter duties in 54 selected main post offices shortly. The PD has also planned to open RAPO in certain areas in the estate sector and already 62 estates have been identified for this purpose.

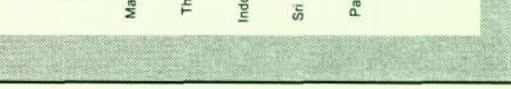
The total revenue of the PD increased by 15 per cent to Rs. 1,617 million in 1998, despite a crippling of the postal service for nearly 2 months due to trade union action. However, even in a normal year, the total postal revenue is not sufficient to meet the operational expenses of the department. The operational expenditure of the PD, which comprises mainly salaries and wages, expanded by 12 per cent in 1998. The PD maintains an excessive workforce of 23,458 employees. In the 1999 Budget, the postal charges were raised somewhat to cover a part of the operating losses. Accordingly, the postage for an ordinary post normal letter was raised by Rs.1.00 to Rs. 3.50. The total operating expenditure of the department rose by 12 per cent to Rs. 2,125 million in 1998, resulting in an operating loss of Rs. 558 million to the department. The capital expenditure of the department amounted to Rs. 228 million in 1998.

Telecommunication

Telecommunication has been one of the fastest growing sectors in the economy. The liberalisation of the telecommunication industry in 1991 and the subsequent divestiture of a part of Sri Lanka Telecom Ltd. (SLT) to NTT of Japan in 1997 had a major impact on the growth of the telecommunication sector. The traditional forms of telecommunication, such as fixed phones, telegraphs, cables etc. are being replaced by more sophisticated telecommunication devices and computer-based methods of information transfer, such as e-mail, internet, video-conferencing, wireless technology etc. in recent years. In Sri Lanka, new communication facilities are being expanded to non-urban areas as well. However, about 53 per cent of the SLT subscribers are still located in the Colombo metropolitan area.

With the re-organisation of SLT management by NTT, there has been a significant improvement in its overall

Chart 5.2
Telephone Density in Selected Countries - 1998



performance. The number of effective direct exchange lines increased by 45 per cent (143,075 new telephone lines) to 455,598 during 1998. The SLT network capacity also increased substantially during 1998. The exchange line switching capacity was augmented by 25 per cent to 543,897, while the number of main cable pairs rose by 23 per cent to 623,036. SLT was able to provide more telephone facilities to regions during 1998. Of the total number of new telephone lines, 62 per cent or 86,964 were given to the regions. The number of persons per direct telephone line dropped to 41 in 1998 from 59 in 1997. Notwithstanding these new developments, the numbers in the waiting list for new telephones remained high at 224,411, reflecting the growing demand. The waiting time for SLT telephone connections has been reduced substantially from nearly 10 years during the early 1990's to between 3-12 months by end 1998, depending on the exchange area and availability of switches. The private wireless telephone operators provide service within a few weeks and there is no waiting list. The total number of international circuits was also increased by 26 per cent to 2,158. With this increase in access to international telecommunications, constraints on IDD facilities were substantially relaxed during 1998.

The total investments in the telecommunication sector by the SLT amounted to Rs.11,177 million during 1998. The second telecommunication project had been successfully completed at a cost of about US dollars 200 million by end 1998. The foreign cost of the project amounting to about US dollars 120 million was financed mainly by the IDA, while the co-financiers were the ADB, Overseas Economic Co-operation Fund (OECF) of Japan, AT&T and UNDP/ITU. The SLT is currently implementing a number of telecommunication projects under the 'Telecommunication Development Programme 1996 – 2000' with assistance from donor agencies such as the OECF, French Protocol, the Swedish International Development Agency (SIDA) and the Economic Development Co-operation Fund (EDCF) of Korea, at a cost of Rs.11 billion. The major activities planned under this programme include an expansion of external plant capacity by 61,000 primary cable pairs in the Kandy, Matale, Hatton and Kalutara areas, expansion of external plant capacity by 28,500 primary cable pairs in Gampaha, provision of 30,000 subscriber lines and 12,000 trunk lines at the Colombo Central Exchange and the expansion of the switching capacity by 36,000 additional lines in the Colombo metropolitan area. In addition, SLT is implementing a local network expansion project in the Colombo metropolitan area with OECF assistance to expand the switching capacity by 144,000 lines in two phases and to establish a fibre optic transmission system. Further, SLT is implementing a programme for augmenting the existing exchanges by 100,000 lines to meet the escalating demand.

Sri Lanka Telecommunication Services Ltd. (SLTS), a subsidiary of SLT, continued to implement the 150K line Telecommunication Development Project aimed at installing about 200,000 exchange lines and 250,000 main cable pairs to cover townships and rural areas. The project commenced in 1996 and by the end of 1998 about 149,200 exchange lines and 193,000 main cable pairs were added to the network. A total of 40 telephone exchanges with a capacity of 68,096 lines were commissioned during 1998. In addition to the exchange capacities and primary cable pairs of the telecom network, the traffic carrying capabilities of the network has also been augmented. A total of 58 Digital Radio Systems and 50 Optical Fibre Systems have been established for local transmission in 15 districts under the 150K project.

During 1998, SLT introduced several new facilities. The Frame Relay Facility and packet switching technology were introduced for high speed transfer of large volumes of data among computer networks. The ISDN facility was introduced for simultaneous transmission and reception of voice/fax/data and images through a single 2 wire telephone line. This provides a range of services including high speed image and data transfer, desktop conferencing and calling line identification. SLT continued to be active in the installation of public pay phones, provision of internet and e-mail services and packet switching facilities. As at end 1998, SLT had installed 1,587 public pay phones. There were 8,560 subscribers for internet and e-mail facilities and twelve customers for the packet switching facility. In accordance with customer requirements, SLT had provided 247 domestic leased circuits and 39 international leased circuits as at end 1998. SLT has drawn up a 5 - year medium-term expansion plan covering 1999-2003 based on the medium-term demand forecast to eliminate the waiting list by end 2002. Under this plan, SLT expects to invest about Rs.20 billion in 1999. Delays in obtaining clearance from the Road Development Authority, delays in obtaining government approvals, bank guarantees and delays associated with security reasons had been the constraints to the timely implementation of telecommunication projects.

The total revenue of SLT increased by 19 per cent to Rs.16,388 million during 1998. Foreign exchange earnings accounted for about 33 per cent of the revenue, compared to 30 per cent in 1997. The increase in revenue is partly attributable to the tariff revision effected from April 1998, with a view to balancing the tariffs on domestic and international calls. The monthly rental was raised from Rs.80 to Rs.180, while domestic call charges were raised from Rs.1.10 to Rs.1.65 per unit for consumers whose monthly telephone usage exceeds 200 units. However, as operating costs of SLT also rose by about 25 per cent, after tax earnings of the SLT dropped by about 24 per cent to Rs.1,825 million. Employment at SLT increased by 4 per cent to 8,648 during 1998. As the new telephone connections given during 1998 grew faster, the number of telephone lines per employee increased from 37.8 to 52.7 in 1998.

The performances of private sector operators of telecommunication services improved further during 1998. The subscriber network of all services except radio paging services expanded considerably in 1998. The subscriber network of the 4 cellular phone operators increased by 52 per cent to 174,202 by end 1998. The total cumulative investment in cellular services also rose by 29 per cent to Rs.8,842 million. The total number of pay phones installed in the country, including those of SLT, increased by 79 per cent to 4,610 as at end 1998. As a new company also entered into this service, the cumulative investment rose by 52 per cent to Rs.1,090 million during the year. The subscriber network of the radio paging services dropped by about 3 per cent, mainly due to the increased use of other wireless facilities. Meanwhile, the number of subscribers for

Box 5

The Year 2000 (Y2K) Challenge

The most striking achievement of this century is the remarkable advances made in science and technology. The advances in computer technology and communications have significantly changed the perception of distance and time. Further developments and advances in the use of science and technology can be expected in the next millennium.

Hence, it is ironical that these same technological advances should contribute towards the creation of the Y2K problem. This problem occurs when computer hardware and software and micro chips used in many plant and equipment, have been programmed using a two digit year notation which does not provide for recognition of the millennium change. This problem can cause computers to be 'confused', malfunction or even completely shut down.

This problem is not a mere Information Technology (IT) issue. It is now understood as a business issue. It is not confined to any country or any sector of society, but affects the whole world and the day to day life of the people. It is, therefore, the responsibility of every organisation to solve this problem.

The solution is a technical one. It is difficult and time consuming to locate and rewrite lines of computer code in existing systems. But the deadline for compliance is fixed (31 December 1999) and no extension of time is possible. Where remediation is not feasible, systems will have to be replaced by new ones. Backup plans will also have to be put in place. The solution is therefore tedious, requiring extensive financial and human resources.

The complexity of the problem was elaborated by President Clinton in his address to the National Academy of Sciences in Washington DC on the Y2K issue on 14 July 1998. He stated that "with millions of hours needed to rewrite billions of lines of code for hundreds of thousands of interdependent organisations, this is clearly one of the most complex management challenges in history. Consider just one major bank, Chase Manhattan. It must work through 200 million lines of code, check 70,000 desktop computers, check 1,000 software packages from 600 separate software vendors."

The problem may not be that extensive in Sri Lanka. However, its impact on government institutions, banks and the financial sector, airports and sea ports, telecommunication, power and energy etc. is of a serious nature and can cause disruption to the economy and the day to day life of the people.

On a Cabinet directive, a National Task Force was appointed under the auspices of the Council for Information Technology (CINTEC) in May 1998 to monitor and guide government institutions in dealing with the Y2K problem. A Task Force was also appointed in the Central Bank to monitor the progress of Y2K remediation activities and guide the banking and financial sector.

The National Task Force presented a report to the President on 16 December 1998 giving the status of the Y2K readiness of government and private sector institutions, including the financial sector, based on information provided by the relevant institutions.

In May 1998, the Central Bank issued guidelines to the banks on action to be taken, setting deadlines on tasks to be met. A consultant was engaged from the Financial Services Authority of the UK to review and report on Y2K projects in the banks. A seminar was also held in August 1998 to create awareness amongst the senior management including the Boards of Directors of the banks and finance companies. A press advertisement was also published in the daily newspapers to create awareness amongst the general public.

The Central Bank is working towards a target of June 1999 by which date all banks in the country should have their systems fully tested and ready for the Year 2000 change. The Central Bank commenced remediation work on its own systems in 1996 and is now in the process of carrying out intensive testing to ensure Year 2000 compliance. Officers from the Bank Supervision Department together with officers from the Information Technology Department are engaged in continuous monitoring of the Y2K remediation projects in commercial and specialised banks.

Although it is almost impossible for every organisation to get every system needing remediation, Year 2000 ready, it is essential that all the mission critical applications, i.e., those that are necessary to keep the business in operation, be remedied, tested, verified and audited.

This is one situation where it is in the interests of all competing organisations to work together towards a common goal. A problem of one can adversely affect another; hence it is important that collective efforts be made by sharing information and resources to ensure

Box 5 (contd.)

the achievement of Year 2000 compliance. Even if all the banks get all their computer systems remedied, if power or telecommunication systems malfunction, the banks will not be able to function smoothly. Since there is so much interdependence among financial systems in countries, disruption in one country can adversely affect other countries as well.

Many international organisations are involved in providing assistance to developing countries. The Bank for International Settlements has a web site providing information and guidelines, giving check lists of activities to be carried out and information with respect to the status of Y2K projects in various important institutions.

The World Bank, through its 'Infodev' programme offered two grants, a US dollars 100,000 Planning Grant and a US dollars 500,000 Implementation Grant, to each developing country that requires such assistance. Sri Lanka has already received the Planning Grant of US dollars 100,000 on submission of its plan for Y2K remediation in the economy. This will be made available through CINTEC. CINTEC is also preparing a proposal for the Implementation Grant. In addition, the Central Bank requested a loan from the World Bank to help the financial sector and some critical government institutions to deal with this problem. The World Bank relaxed many of its normal procedures and processed this loan within 3 months of the original request. This loan, for US dollars 29 million, is a soft loan granted under terms and conditions which are very favourable to Sri Lanka. The funds will be made available to banks and certain key government institutions. Two Project Co-ordinating Units, one for the banking sector comprising of officers from the Central Bank and the other for public sector institutions comprising officers from the Ministry of Finance, are now operational to oversee the disbursement of the loan.

This is no doubt the greatest management challenge that the world has had to face with a concerted effort. Everybody has to do his or her part to successfully overcome this problem. By acting together and acting promptly, this can become a challenge that is met successfully.

data communication services grew sharply by 62 per cent to 19,019. The two Wireless Local Loop (WLL) telephone operators have provided 41,550 new connections during 1998. Consequently, the subscriber network of WLL increased by 158 per cent to 67,931 by end 1998, while the investment in this sector rose by 37 per cent to Rs.9,291 million. When both SLT telephone and WLL telephones are taken together, the telephone density improves to 30 persons per telephone. The total employment in the private telecommunication sector was 8,599 as at end 1998.

5.5 Energy

The energy sector benefitted from the decline in petroleum product prices and satisfactory rainfall in the catchment areas. In 1998, the Ceylon Electricity Board (CEB) was able to utilise about 98 per cent of the hydro power potential and generated 3,908 GWh. With the commissioning of a 51 MW new private sector power plant on a BOT basis, thermal power generation capacity expanded to 497 MW in 1998. Consequently, the overall power generation capacity increased by about 4 per cent to 1,636 MW. These developments enabled the CEB to decommission completely the expensive hired power plants by May 1998. Self-generation of electricity was also reduced substantially during the year. The demand for power rose by 12 per cent to 4,509 GWh. in 1998.

Special emphasis has been recently placed on the expansion of the thermal power capacity, by both the public sector and the private sector, to reduce over-dependence on hydro power. The national power policy aims at maintaining an adequate level of investment in the sector at all times by harnessing private sector investment to enhance supply reliability and lower the price to the consumer. The private sector is expected to play a key role, particularly in the areas of thermal power and mini-hydro power generation.

Electricity

The installed power generating capacity of the country increased by 4 per cent to 1,636 MW. during 1998. The entire increase in the capacity came from independent power producers (IPP). As a result, the hydro dependency of the installed capacity further decreased to 69 per cent from 72 per cent at the end of the previous year. Asia Power (Pvt.) Ltd. commenced operating its 51 MW diesel power plant, constructed at a cost of US dollars 62 million, in May 1998. Kool Air Ventures (Pvt) Ltd., which owns the 8.2 MW diesel power plant at Malabe, established another 10 MW diesel power plant at Kankasanturai at a cost of US dollars 10 million in November 1998. However, the plant is not operating at its optimal level as transmission and distribution lines have not yet been fully restored. Meanwhile, the private hydro generating capacity also increased to 2.2 MW with the

TABLE 5.5

Salient Features of the Energy Sector

Item	Unit	1996	1997	1998(a)	Percentage Change	
					1997	1998
1. Electricity						
Available Capacity	MW	1,453	1,595	1,636	10	3
Installed Capacity	,,	1,409	1,575	1,636	12	4
CEB - Hydro	,,	1,137	1,137	1,137	0	0
Thermal	,,	272	405	405	49	0
Private - Hydro	,,	-	1.5	2.2	-	47
Thermal	,,	-	30.7	92.7	-	199
Hired Private Power	,,	44	20	0	-55	-100
Units Generated	GWh	4,530	5,145	5,673	14	10
CEB - Hydro	,,	3,249	3,443	3,908	6	14
Thermal	,,	974	1052	1246	8	18
Private - Hydro	,,	3	4	5	33	25
Thermal	,,	-	13	388	-	2,885
Hired Private Power	,,	152	398	18	162	-95
Self Generation	,,	152	235	108	55	-54
Total Sales	,,	3,740	4039	4509	8	12
Domestic	,,	1,046	1213	1368	16	13
Industrial (b)	,,	1,513	1430	1612	-5	13
Commercial	,,	592	689	757	16	10
Local Authorities/LECO	,,	542	657	722	21	10
Street Lighting	,,	47	50	50	6	0
2. Petroleum Products						
Quantity Imported						
Crude Oil	MT'000	2,033	1,814	2,034	-11	12
Refined Products	,,	729	1,084	692	49	-36
L.P. Gas	,,	71	87	98	23	13
Value of Imports (C&F)						
Crude Oil	Rs Mn.	16,809	15,584	13,240	-7	-15
	US$ Mn.	304	263	205	-13	-22
Refined Products	RS Mn	8,465	12,467	5,966	47	-52
	US$ Mn.	153	212	92	39	-57
L.P. Gas	Rs Mn	1,237	1,635	1,568	32	-4
	US$ Mn.	22	28	24	27	-14
Average Price of	Rs/Barrel	1,116	1,155	884	3	-23
Crude Oil (C&F)	US $/Barrel	20.19	19.42	13.63	-4	-30
Quantity of Exports	MT'000	661	547	468	-17	-14
Value of Exports	Rs. Mn	5,740	6,131	4,665	7	-24
	US$ Mn.	104	95	72	-9	-24
Local Sales	MT '000	2,120	2,321	2,436	9	5
Super Petrol	,,	197	193	203	-2	5
Auto Diesel	,,	1,048	1,295	1,181	24	-9
Heavy Diesel(c)	,,	87	-	-	-	-
Super Diesel	,,	26	33	38	27	15
Kerosene	,,	228	225	235	-1	4
Furnace Oil	,,	336	372	551	11	48
Avtur	,,	110	104	111	-5	7
L.P. Gas	,,	88	99	117	13	18
Local Price						
Super Petrol	Rs/Litre	50.00	50.00	50.00	0	0
Auto Diesel	,,	13.20	13.20	13.20	0	0
Heavy Diesel	,,	11.70	-	-	-	-
Super Diesel	,,	18.50	18.50	18.50	0	0
Kerosene	,,	10.40	10:40	10.40	0	0
Furnace Oil	,,					
500 Seconds	,,	7.80	7.80	7.80	0	0
800 Seconds	,,	7.50	7.50	7.50	0	0
1,000 Seconds	,,	7.20	7.20	7.20	0	0
L.P. Gas	Rs/Kg	22.30	23.07	23.07	3	0

(a) Provisional
(b) Excluding Self Generation.
(c) From June 1996 onwards heavy diesel sales are also classified under auto diesel

Sources: Ceylon Petroleum Corporation
Ceylon Electricity Board
Shell Gas Lanka Ltd.
Lanka Marine Services (Pvt.) Ltd.

commissioning of two micro power projects, namely, Ritigahaoya (0.112 MW) and Rakwana ganga (0.76 MW) during the year.

Total power generation, inclusive of self-generation registered with the CEB, increased by 10 per cent to 5,673 GWh. in 1998, when compared to the 14 per cent growth recorded in 1997. Hydro power, which accounted for 69 per cent of the total power generation, grew by 14 per cent compared with 6 per cent in the previous year. This was the highest growth recorded after 1993. Thermal power generation grew further by 18 per cent to meet the growing demand. Electricity generation from CEB sources rose by 15 per cent in 1998. Meanwhile, power generation by the IPPs grew sharply to 393 GWh. from a mere 17 GWh. in 1997 as the Lakdhanavi Power Plant (22.5 MW) commissioned at the end of 1997 was in operation throughout 1998 and the Asia Power Plant (51 MW) was in operation since its commissioning in May 1998. The Lakdhanavi power plant has the capacity to generate 168 GWh. per annum, while the Asia Power Plant is capable of generating 330 GWh. per annum. Meanwhile, the CEB allowed self-generation of electricity during March – June and again during December, as scheduled. The recorded self-generation of electricity during 1998 amounted to 108 GWh., which represents a 54 per cent drop when compared to 1997. The cost of thermal power generated by the CEB and by the hired power plants dropped sharply by 49 per cent to Rs.2,751 million, mainly due to the provision of fuel by the CPC at duty exempted prices from July 1997. Meanwhile, the cost of power purchases from IPPs amounted to Rs.1,776 million due to an increase in the volume of power purchases in 1998. According to the power purchasing agreements, the CEB purchases a minimum guaranteed 168 GWh. of power per annum from the Lakdhanavi power plant and 330 GWh. of power per annum from the Asia Power Plant at a price determined by taking into account the financial charge/ capacity charge, an energy charge, an operating charge and taxes to be paid. The all inclusive annual average power purchasing price has been estimated at Rs.4.58 per KWh. in 1998 which is higher than the average tariff of Rs.4.47 per KWh. in 1998. However, this did not create a major problem for the CEB, as the overhead cost per unit of electricity generated declined in 1998 owing to almost full utilisation of low cost hydro power and an indirect subsidy to the CEB from the CPC in the form of duty exempted fuel supplies. However, the share of power purchases from other sources out of total electricity available with the CEB (about 7 per cent) was not substantial.

The average tariff for electricity was increased by about 8 per cent in 1998. This increase was mainly an outcome of the general tariff revision in September 1997, under which the average tariff was raised by about 11 per cent. In addition, the imposition of GST on the electricity bills of those consumers who consume over 90 KWh. per month also contributed to the increase in the average tariff. At the prevailing tariff rates, the domestic consumers are highly subsidised by the commercial and industrial sectors. The average domestic tariff was Rs.3.11 in 1998 whereas the average cost, excluding interest payment, was Rs.3.50 per KWh. The average tariff rates of electricity for general purposes, at Rs.7.00 per KWh., was twice the average cost. For industrial purposes the tariff, at Rs.5.20 per KWh., was 49 per cent above the average cost. The actual cost of electricity generation has been rising on account of increasing reliance on thermal power. However, the need for another tariff increase in 1998 was averted as the government agreed to provide fuel to the CEB at duty exempted prices. The CEB further benefited as it was allowed to pass the GST to the consumers without adjusting the tariff for turnover tax which had been paid by the CEB. Primarily due to the reasons mentioned above, the average cost of producing a unit of electricity dropped substantially from Rs.4.50 in 1997 to Rs.3.50 in 1998. However, this type of implicit and non-transparent tariff changes will not bring a lasting solution to the existing weaknesses in the CEB tariff system. An explicit strategy, based on the economic cost of power generation, transmission and distribution, is needed to rationalise the tariff structure of the CEB.

Total electricity consumption of the country increased by about 12 per cent to 4,509 GWh. in 1998, mainly due to the expansion of the consumer base. Electricity sales to the domestic sector rose by about 13 per cent to 1,368 GWh., while the domestic sector consumer network, including those of Lanka Electricity Company Ltd. (LECO) also increased by 10 per cent to 2,053,833 during the year. (Of the total electricity sales, about 16 per cent was sold through LECO). This increase in the domestic consumer network was attributed mainly to the rapid expansion of rural electrification projects in recent years. The proportion of houses with electricity increased to about 52 per cent of the total houses in 1998. However, a recent survey by the CEB reveals that only about 36 per cent of the rural houses have electricity, compared to 95 per cent in the urban areas. While the rural electrification programmes are costly, there is an indirect benefit to society due to the increased availability of power. The cost could be reduced by developing renewable energy sources and thermal power sources at regional level, thereby reducing transmission and distribution losses. Meanwhile, electricity sales to the industrial sector, exclusive of self-generation, rose by about 13 per cent to 1,786 GWh., of which 174 GWh. was sold by LECO. The industrial consumer network, inclusive of those under LECO, grew by 5 per cent to 28,006 during the year under review. Electricity sales by the CEB to the general purpose category expanded by 10 per cent to 757 GWh., while sales by LECO to this category rose by 15 per cent to 118 GWh. The total general purpose consumer network expanded by 7 per cent to 252,016, of which 32,750 were under LECO.

Chart 5.3
Major Energy Sources

Chart 5.3.1
Electricity Generation and Sales
(1990 = 100)

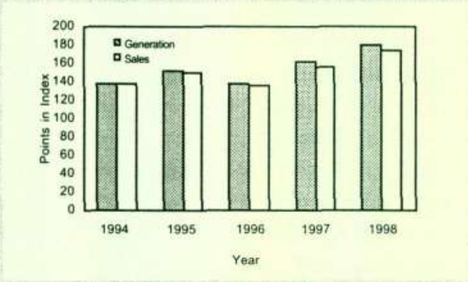


Chart 5.3.2
Electricity : Average Tariffs and Unit Costs

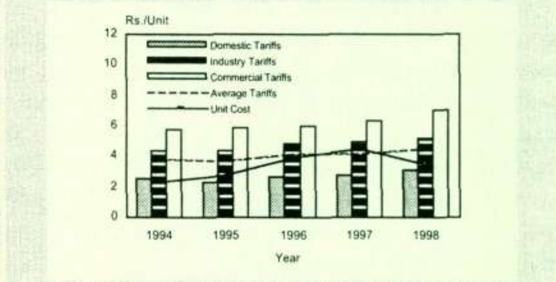


Chart 5.3.3
Petroleum: Prices and Costs

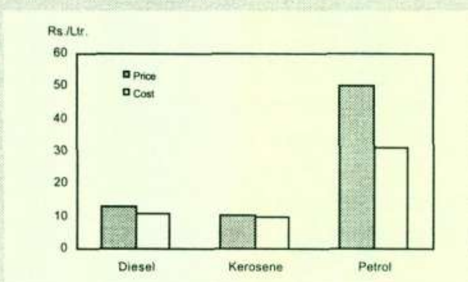
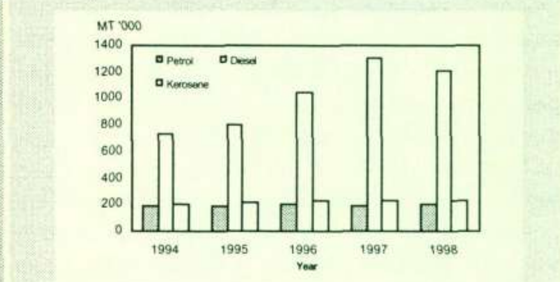


Chart 5.3.4
Petroleum Products - Domestic Sales



Investment in the electricity sector increased sharply by about 58 per cent to Rs.14,873 million during the year under consideration. The total capital expenditure was financed by foreign sources (Rs.6,029 million), government funds (Rs.1,000 million), funds generated internally by the CEB (Rs.6,044 million) and from consumer contributions (Rs.1,800 million). Construction work for a number of power projects was in progress during 1998. The 40 MW. second extension to the Sapugaskanda diesel power station was in progress in 1998 and is expected to be completed by end 1999. The preliminary work relating to the construction of access roads etc. of the proposed Kukule Ganga Hydro Power Plant (70 MW) commenced in 1997 with OECF assistance and continued in 1998. The main construction work of the project is scheduled to be started by early 1999. The estimated cost of the project is Rs.13,000 million. Meanwhile, the wet blanket remedial works against the right bank leakage of the Samanalawewa hydro reservoir commenced in March 1998 and Phase I was completed in October 1998. As a result, the leakage of 2.8 cubic meters per second (cumecs) was reduced to 2.2 cumecs and down-stream ground water pressure was also reduced. The total estimated cost of the wet blanketing is Rs.1,428 million, of which Rs.768 million was spent in 1998. Phase II is to commence after assessing the success of Phase I.

The construction work of the OECF funded 150 MW Kelanitissa Combined Cycle Power Plant has also been initiated and this is to be completed by the end of the year 2000. The environmental clearance for the Upper Kotmale Hydro Power Project has now been granted by the Secretary to the Ministry of Forestry and Environment. However, a court case has been filed by a non-governmental organisation against this decision and the court decision is awaited. The Technical and Environmental Impact Assessment of the proposed West Coast Coal Power Plant was carried out during 1998 and the Environmental Impact Assessment report has been submitted for approval.

The third rural electrification project, which commenced in 1997 with ADB assistance, continued in 1998. The project has been designed to provide electricity to at least 110,000 new consumers in rural areas by the end of year 2000. The total cost of the project is Rs.3,051 million. About 52 per cent of the work had been completed by end 1998.

Work on several private sector power projects, was being implemented in 1998. A 10 MW diesel power plant was installed in KKS on a BOO basis by Kool Air Ventures (Pvt.) Ltd. towards end 1998. Negotiations are being conducted to set up a 40 MW diesel power plant at the regional level at Anuradhapura/Matara/Matugama. A Letter of Intent (LOI) was signed between the relevant parties to build a new Combined Cycle Power Plant of 165 MW on a BOOT basis at Kelanitissa. The major shareholder of this project is the USA based AES Corporation. Negotiations were concluded in respect of setting up a 60 MW Barge Mounted Power Plant at Colombo on a BOO basis at an estimated cost of Rs.3,500 million. The power generation is expected to commence by the middle of 2000. In addition, construction work on another 4 micro hydro projects with a total capacity of 4.03 MW and one Waste Heat Power Plant by Haycarb Ltd. (0.390 MW) had been completed during 1998. Proposals were being evaluated in respect of 5 other mini-hydro projects with a capacity of 27.7 MW. The Power Purchasing Agreement (PPA) between the CEB and the developers of the Delgoda mini-hydro power plant (2.5 MW) was signed during the year, while two other PPA (11.3 MW) were under negotiations.

Petroleum

The total petroleum consumption in the country accounts for about 32 per cent of the total primary energy consumption in Sri Lanka. The demand for petroleum products has been increasing at an average rate of 12 per cent per annum over the last 5 years. The growth of demand for diesel and furnace oil has been relatively higher owing to the recent expansion of thermal power plants and expansion in the transport sector.

Crude oil imports during 1998 increased by 12 per cent to 2 million metric tons as the refinery was fully operational throughout the year. As a result, refined product imports dropped by 36 per cent during the year. The value of petroleum imports during 1998 dropped sharply by 36 per cent to US dollars 345 million primarily due to lower crude oil prices in the world market. The average price of crude oil dropped to US dollars 13.63/barrel in 1998 from US dollars 19.42/barrel in 1997. The price of crude oil as at end 1998 was US dollars 10.97 per barrel.

Although crude oil prices dropped considerably, there was no corresponding reduction in the local prices of petroleum products. As a result, the profit margins of the CPC on all its products expanded. Super petrol was selling at 60 per cent higher than the cost of production including taxes. In the case of diesel and furnace oil, the selling prices were higher by 24 per cent and 19 per cent, respectively. Meanwhile, despite the sharp drop in international prices, gas prices also remained unchanged. However, the total profit accruing to the CPC eroded to some extent due to the depreciation of the rupee against the US dollar by 9.6 per cent during the year. In addition, the government absorbed part of this profit by imposing special levies on the CPC and increasing the duty on petroleum imports from 25 per cent to 30 per cent with effect from November 1998. The CPC also used a part of its profits to reduce its liabilities. According to provisional data, the CPC has posted a before tax net profit of Rs.6.6 billion against a Rs.407 million profit in 1997 and a Rs.3,657 million loss in 1996. In the context of the increased resource needs of the government, a downward revision of the prices of petroleum products was not made in 1998, even though world petroleum prices declined significantly.

The local sales of petroleum products rose by 5 per cent to 2.4 million metric tons during 1998. The increase was clearly seen in furnace oil sales, which grew by 48 per cent, primarily due to the heavy demand from the new thermal power plants. This led the CPC to restrict supplies of furnace oil for bunkering services. As a result, Lanka Marine Services Ltd. (LMS) could not meet the entire demand for furnace oil by ships calling at the Port of Colombo for bunkering, thus losing earnings of foreign exchange. Sales of furnace oil for bunkering services dropped by 15 per cent to 189, 000 metric tons and earnings dropped by 33 per cent to US dollars 16 million. Ships calling at the Port of Colombo for bunkering services have been decreasing owing to relatively higher prices charged for bunkering services at the Port of Colombo. The average price of fuel oil at Colombo was US dollars 86 per metric ton in 1998. At present, LMS, which is a subsidiary of the CPC, has a monopoly for the supply of bunker fuel. In view of the relatively higher fuel prices and insufficient supplies, there is a strong demand by shipping lines to liberalise bunker supplies at the Port of Colombo. In any event, it should be noted that a consistent policy should be adopted for providing bunker fuel at a competitive price to attract more ships for bunkering, as this would help many other economic activities.

Meanwhile, super petrol sales increased by about 5 per cent compared with a 2 per cent drop in the previous year, basically due to an increase in the number of petrol driven motor vehicles. However, auto diesel sales dropped by about 9 per cent to 1.2 million metric tons during the year on account of lower demand from the diesel thermal power projects, particularly from hired thermal power projects. The demand for diesel for thermal power generation dropped by

64 per cent to 110,201 metric tons, while that for transportation activities rose by 11 per cent to 1,042,109 metric tons. Kerosene sales rose by 4 per cent. In the meantime, Avtur (aviation turbine oil) sales increased by 7 per cent despite the fact that these prices are the highest in the region. Setting of fuel prices at competitive levels is a pre-requisite if Sri Lanka intends to emerge as a hub air transit port in the region. The consumption of Liquefied Petroleum (LP) gas grew by 19 per cent to 117,269 metric tons during 1998. LP gas imports rose by 13 per cent to 97,905 metric tons, while purchases from the CPC increased by 24 per cent to 17,221 metric tons. LP gas sales to the domestic sector, at 86,090 metric tons, reflected a growth of 16 per cent over the previous year mainly due to the expansion in the LP gas usage in households. Industrial gas sales increased by 28 per cent to 31,179 metric tons during 1998. Conversion of petrol driven vehicles to LP gas is also partly responsible for the increase in the demand for LP gas. According to rough estimates, there are some 5,000 vehicles converted by reputed companies so far to run on LP gas and the number is on the increase. Therefore, it is now necessary to introduce regulations and procedures in order to monitor this industry and to ensure the safety standards of these conversions.

The CPC implemented several projects to upgrade its storage facilities and distribution network. Under the project for emergency rehabilitation of petroleum facilities, rehabilitation of the damaged tanks at Orugodawatte and Kolonnawa and construction of a new distribution facility at Sapugaskanda commenced in early 1998 with ADB assistance. Rehabilitation of 3 tanks at Orugodawatte and 6 tanks at Kolonnawa are scheduled to be completed by mid-1999. The Sapugaskanda new distribution facility will be completed towards the end of 1999. The total cost of the project has been estimated at Rs.3,048 million. The CPC has initiated a project for the improvement of regional storage facilities with its own funds at a cost of Rs.55 million. A project to develop an aviation fuelling facility at Katunayake also commenced in 1998. The total cost of the project has been estimated at Rs.462 million. It has also been planned to rehabilitate the existing product transfer pipelines from the Colombo Port to the Kolonnawa terminal at a cost of Rs.150 million.

5.6 Transportation

Transport Network

Transportation by land, sea and air constitutes a vital part of the economic infrastructure. The provision of transportation in Sri Lanka is still mainly dominated by the public sector, although private sector participation has been increasing in recent years, especially in bus transportation. The transport sector in 1998 indicated a moderate improvement, although some sub-sectors reflected setbacks. The benefits of clustering Peoplised Bus Companies into Regional Transport Companies (RTCs) in 1997 and the recent initiatives by Sri Lanka Railways (SLR) towards a dedicated passenger service are yet to be realised.

About 90 per cent of the demand for transportation in Sri Lanka is met by using the islandwide road network of nearly 100,000 kms. The Road Development Authority (RDA) is responsible for the maintenance and development of A and B class national highways, which account for 11,285 kms. Approximately another 15,000 kms of roads, categorised as C and D class roads, are under the purview of Provincial Councils (PCs). The remaining roads, which comprise local roads, estate roads and agricultural roads, are under the local governments and other public and private institutions including plantation companies, the Mahaweli Authority, the Irrigation Department and the Wild Life Department.

The bus fleet of the RTCs stood at 7,942 at end 1998. This indicated a marginal decrease of one per cent, mainly due to the sale of a number of buses, which were not in operational condition. The number of private buses engaged in passenger transportation in 1998 was nearly 14,000. The number of motor cars registered at the Department of Motor Traffic (DMT) since 1980 was 300,532, while the number of motor cycles amounted to 711,617. The registered number of goods transport vehicles during the same period amounted to 106,438, reflecting its significant contribution towards the goods transportation service. The total number of three wheelers so far registered at the DMT amounted to 75,666. These vehicles have become an important mode of transportation in both urban and rural areas. The total number of vehicles including motor cycles and three wheelers, registered since 1980, was 1,267,496 as at end 1998. The rolling stock position of the SLR comprised 65 locomotives, 26 power sets, 1,262 carriages and 2,575 wagons. The rail network remained unchanged at 1,463 kms. Air Lanka, the national carrier, continued its operations to 29 destinations in 21 countries. This covers the geographical areas of the Indian sub continent, the Far East, Europe and the Middle East. With regard to sea transportation, Sri Lanka mainly acts as a facilitator by operating several sea ports rather than entering into the competitive shipping industry. The Sri Lanka Ports Authority (SLPA) is the apex institution in this sector and operates 4 major ports in Colombo, Trincomalee, Galle and Kankasanturai. The Ceylon Shipping Corporation and several private sector shipping companies provide limited shipping services in the country.

Road Development

The RDA was responsible for the development and maintenance of national highways, which stood at 11,285 kms. in 1998. A total of 138 kms. was added to the national highways during the year. In addition, 4,200 bridges were also maintained by the RDA. The total expenditure on roads increased by 3 per cent to Rs. 5,783 million in 1998. Of the total expenditure, 57 per cent was allocated to rehabilitation and improvement of roads, bridges and culverts, while 38 per cent was allocated for construction, additions and improvements of the roads. Meanwhile, the amount allotted to national road maintenance has increased by 3 per cent to Rs. 265 million.

Although Sri Lanka has relatively a good road coverage and road density, road maintenance and improvement have not kept pace with the increasing need for a better road network due to resource limitations. There are several other factors, such as the resistance that has to be faced in acquiring lands for building of new roads or widening the existing roads, the waste of funds due to the lack of co-ordination among highway authorities and utility agencies and financial constraints faced by contractors, that delay the completion of some projects. At the local and the provincial levels, the improvement of the road network is long overdue. As most of the provincial roads are not designed or built according to accepted engineering standards, the increasing number of vehicles, particularly heavy vehicles, cause damage to these roads. Resource constraints have been the major problem for the rehabilitation of these roads.

Efforts to develop and maintain the national road network increased considerably in 1998. A number of foreign funded road development projects were in progress under the RDA during this year. Almost all of these projects have been designed with the view to improving the quality of national highways. The Third Road Rehabilitation Project for the rehabilitation of 397 kms. of roads and construction of 19 bridges in the Southern, Western and North Western provinces was in progress with World Bank assistance during the year. The work on most contracts had been completed. The Third Road Rehabilitation and Improvement Project with assistance from the Asian Development Bank (ADB) was also in progress. Under this project, rehabilitation of a total of 82 kms. on the Narammala-Giriulla, Kurunegala-Padeniya, Katugastota-Matale, Wattegama-Matale, Peradeniya-Gampola and Kandy-Tennekumbura roads is nearing completion. The Katunayake-Puttalam road is also being rehabilitated/ improved at a cost of Rs. 1,084 million under the same project. The total value of the work completed under this project in 1998 was Rs. 753 million. Phase II of the Sri Lanka-Japan Friendship Bridge is also being constructed with assistance from the OECF and is scheduled to be completed by 2000. Work on the Baseline Road Rehabilitation Project (Phase I) was in progress, with assistance from the OECF. Under this project, a dual 3 lane causeway is being constructed from the Kelanitissa roundabout to the Kanatta roundabout with a flyover across the main line railway at Dematagoda and a pedestrian subway at Borella. The work on the balance section from the Kanatta roundabout to the High Level Road will commence in 1999. The total cost of the project has been estimated as Rs. 1,530 million, of which Rs. 457 million was incurred in 1998.

The rehabilitation/reconstruction of 28 bridges at a cost of Rs. 600 million with the assistance of the Kuwait Fund for Arab Economic Development was in progress during 1998. Meanwhile, a project for the procurement of road construction machinery and equipment has been completed during the year with assistance from the OECF. In addition, the fourth ADB Road Improvement Project is also scheduled to commence in 1999 with a view to improving 345 kms. of roads and 47 bridges. The Periodic Maintenance Programme, involving extensive sand sealing and surface dressing also continued with the assistance of the OECF. The cumulative kilometerage completed under this project totaled 3,215 kms, of which sand sealing was for 3,104 kms and double bitumen surface treatment (DBST) was for 111 kms. The amount spent in 1998 under the project was Rs. 1,179 million.

The construction and improvement of highways and bridges under the Consolidated Funds Project continued with a provision of Rs. 1,658 million for the execution of work on a provincial basis. Under this, the work on the Marine Drive along the western coast line was in progress at a total estimated cost of Rs. 72 million. The Duplication Road extension was also under construction and the total estimated cost for this project is Rs. 52 million. In addition, the work on 50 bridges has been completed and these were opened during the Independence celebrations. The construction work of the Kelanisiri Bridge over the Kelani river was in progress at a cost of Rs. 110 million. Meanwhile, the construction of a flyover across the main railway line at Ragama at an estimated cost of Rs. 200 million was nearing completion. For the first time in Sri Lanka, a pedestrian subway was constructed in Kandy during 1998 at a cost of Rs. 24 million. More subways of this type are to be built in other areas in the country, based on the necessity for safe movement of pedestrians and to reduce congestion.

Several decisive measures have been taken to cope with the emerging demand for fast and reliable roadways in the country. Accordingly, the construction of three expressways is proposed. The Colombo-Katunayake expressway, which is designed as a 4 lane dual carriage expressway, will commence in 1999 at a cost of Rs. 6.5 billion. The final report of the feasibility study for the Matara-Colombo expressway is being finalised and the detailed engineering designs will commence in March 1999. With regard to the Colombo-Kandy expressway, a pre-feasibility study is scheduled to be carried out in 1999.

Passenger Transport

For the development of the passenger transport system, the focus in 1998 was on increasing the number of buses, streamlining of bus and rail services and providing necessary support by way of financial as well as infrastructure development. The lack of attention to commercial viability has been one of the major inefficiencies in the passenger transport sector. The provision of 500 imported 32 seat buses for augmenting bus services, particularly in rural areas, and the distribution of 500 engine kits for RTCs to repair their buses were the major changes made in 1998. Although the performance was not as satisfactory as expected, the restructuring of Peoplised Bus Companies into Cluster Bus Companies has also provided a strong base for future development. The SLR was also strengthened somewhat during the year, so as to provide a better rail transport service, in spite of current difficulties.

Bus Transport

The demand for bus transportation has been increasing over the years. About 6,340 buses are required to provide a satisfactory service by the RTCs. However, the average number of buses operated by the RTCs was only 4,325 in 1998. The operated kilometerage of the RTCs decreased by 6 per cent to 313 million kms. in 1998. The passenger kilometerage also decreased by 8 per cent to 17,716 kms. The total revenue of the RTCs dropped by 3 per cent to Rs.4,742 million. The RTCs received a subsidy of Rs. 435 million from the government on account of operations on non-remunerative bus routes and for the issuance of season tickets at subsidised rates to school children. The total expenditure of RTCs also decreased by 2 per cent to Rs. 6,362 million in 1998.

A number of steps are being taken under the restructuring programme of bus transportation by the public sector with a view to providing an efficient service. A Voluntary Retirement Scheme (VRS) has been introduced in the Sri Lanka Central Transport Board (SLCTB) to retrench approximately 1,500 employees, for which the required funds have been made available through a supplementary estimate of Rs. 800 million. A Central Monitoring Unit (CMU) is to

TABLE 5.6
Salient Features of the Transport Sector

Item	Unit	1996	1997	1998 (a)	Percentage Change	
					1997	1998 (a)
1. New Registration of Motor Vehicles						
Buses	Nos.	1,364	1,999	3,190	46.6	59.6
Private Cars	"	17,671	31,338	41,151	77.3	31.3
Dual Purpose Vehicles	"	14,250	16,293	18,455	14.3	13.3
Motor Cycles	"	31,955	36,755	42,089	15.0	14.5
Goods Transport Vehicles	"	5,660	5,561	8,703	-1.7	56.5
Land Vehicles	"	8,340	7,652	8,405	-8.2	9.8
Private Coaches	"	115	60	158	-47.8	163.3
Others	"	65	16	62	47.8	163.3
2. Sri Lanka Railways (SLR)						
Operated Kilometers	'000	7,705	7,787	8,467	1.1	8.7
Passenger Kilometers	Mn.	3,241	3,290	3,538	1.5	7.5
Freight ton Kilometers	Mn.	107	96	102	-10.3	6.3
Total Revenue	Rs.Mn.	938	1,030	1,190	9.8	15.5
Current Expenditure	"	1,826	1,742	2,256	-4.6	29.5
Operating Loss	"	887	712	1,066	-19.7	49.7
Capital Expenditure	"	4,624	4,187	3,457	-9.5	-17.4
3. Regional Bus Companies						
Operated Kilometers	Mn.	348	332	313	-4.6	-5.7
Passenger Kilometers	"	20,259	19,154	17,716	-5.5	-7.5
Total Revenue	Rs.Mn.	5,170	4,892	4,742	-5.4	-3.1
Operational Expenditure	"	6,012	6,467	6,362	7.6	-1.6
Operating Loss	"	842	1,575	1,620	87.1	2.9
4. Air Lanka						
Hours Flown	Hrs.	29,899	31,045	24,118(b)	3.8	n.a.
Passenger Kilometers Flown	Mn.	3,809	4,264	3,056(b)	11.9	n.a.
Passenger Load	%	69.9	75.9	69.7(b)	8.6	n.a.
Weight Load	%	63.1	68.6	62.1(b)	8.7	n.a.
Freight	MT.	25,128	36,959	27,743(b)	47.1	n.a.
Employment	No.	5,089	4,793	4,782(b)	-5.8	n.a.

(a) Provisional.
(b) Up to September

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

be set up with selected officers who remain with the SLCTB. The affiliated institutions of the SLCTB will also be restructured. Accordingly, the Ceylon German Technical Training Institute and the Driver Training Schools will be allowed to function independently under the Ministry of Transport and Highways.

A significant development in the private sector passenger bus service was seen in 1998. In the provinces, a total of 11,242 buses were in operation (except in the Northern and Eastern Provinces) as at end 1998. This indicated an increase of 19 per cent, as compared to 1997. The total seating capacity of these private buses also increased significantly by 29 per cent in 1998. The total number of permits issued by the Provincial Councils increased by 17 per cent. The number of routes allocated to the private sector at provincial level increased to 1,446 in 1998 from 1,335 in 1997. However, the number of bus owners has increased significantly from 9,432 in 1997 to 10,922 in 1998, reversing the trend of gradual transformation of the single owners to fleet owners observed in the previous year. This could have an adverse impact on cost effectiveness as well as on the monitoring of the private bus industry. The number of direct employment opportunities in this sector at provincial level has been estimated as around 27,000 in 1998. Meanwhile, the total number of new registrations of passenger transport buses at the DMT by RTCs and private operators increased by 60 per cent to 3,190 in 1998.

The National Transport Commission (NTC), which advises the government on the national policy on omnibus passenger transportation, implemented several programmes in order to improve the present bus service in the country. Steps have been taken by the NTC with the help of provincial authorities to operate buses on common schedules for private operators and the RTCs, using common terminals. The work on phasing out the existing low roof buses was also in progress. The NTC continued its islandwide programme to train private bus crews in collaboration with the SLCTB Driver Training Schools and with assistance from the World Bank. As at end 1998, a total of 6,266 drivers and 8,529 conductors had been trained under this programme. In addition, another 10,000 bus crews attached to the RTCs will also be trained. The main objective of this programme has been to enhance productivity, improve service and enhance road discipline in passenger transportation. A programme for educating bus owners has been successfully completed in the Southern Province. Provision of private bus accident relief, issuance of permits to inter-provincial and intra-provincial buses and provision of financial support for rural bus services (Rs. 212 million) are among the other activities carried out by the NTC during 1998. The NTC has also proposed the setting up of a Central Bus Information System on countrywide bus operations, with the assistance of the World Bank.

The Road Safety Secretariat (RSS), which was opened in 1998 and is funded by the Asian Development Bank (ADB), is engaged in regulating and managing the flow of traffic on highways. Under the directions of the RSS, a number of traffic lights were installed at various places in and around Colombo during 1998. The cost of traffic lights has been reduced by about 80 per cent as a result of the local production of traffic lights by the Road Construction and Development Company (RCDC) and the University of Moratuwa as a joint project.

A committee appointed to formulate a National Bus Transport Policy for Sri Lanka has recommended that the share of the state sector bus service be increased from the present 50 per cent to at least 60 per cent in order to provide a better service at a reasonable cost. This is expected to provide an efficient, user-friendly transport network by optimising the use of available resources. The need for setting up private bus companies with a minimum fleet of 50 buses, with a view to improving the productivity and to ease the monitoring procedures has also been emphasised. However, the main problem in the bus (as well as railway) transportation system has been the control of bus fares at non-remunerative level. This has hindered the development of the sector through private participation. Without addressing this basic issue, increasing the size of the public sector in bus transportation will be a reversal of policies.

Among the current developments in the road transport sector, it is evident that the use of private vehicles for transportation is on the increase, mainly due to the prevailing deficiencies in the public transport system. This trend has led to heavy congestion in city centres, particularly during peak hours. As a part of this trend, the number of vehicles, such as school vans, motor cycles and three wheelers in city centres is rapidly increasing. Although this trend has a positive impact on the economy through increasing economic activities and providing employment, the regulatory network has not been sufficiently developed to prevent unnecessary road congestion, and more importantly, to ensure the safety of passengers travelling by these vehicles. On the other hand, the usage of road surface by other vehicles is more than 60 per cent, while the passenger transportation buses use only a very low percentage of the road surface though their effect is much more significant to the economy. Meanwhile, employee transportation by the private sector and public sector commercial organisations has been encouraged by giving fiscal incentives. The expenditure incurred by these institutions on purchasing buses is exempted from income tax. In addition, these institutions are allowed to import buses and coaches free of customs duty. The local companies engaged in the bus assembling industry are also allowed duty free imports of parts and equipment. It is expected that these policies would result in decreasing the demand pressure for passenger transportation, especially during peak hours. In addition, the duty concession has been further extended to the importation of buses with over 40-seat capacity by private sector bus operators.

Although the Public Transport Fare Committee recommended an adequate fare increase in 1996, the government allowed only 15 per cent and 20 per cent fare increases for bus and rail transport, respectively, with effect from July and March 1996. This increase has now been more than eroded by rising costs due to sharp increases in the prices of spare parts, increases in wages and due to the Goods and Services Tax (GST) introduced in April 1998. Lower profit margins in the industry have resulted in not only a deterioration of the quality of the service but also discouraged new investments in the bus industry. The continuation of the present fare structure would certainly be a burden to the government in time to come via subsidies to the public sector bus companies. The additional expenses arising from the wage increase of Rs. 1,000 given to the employees of RTCs with effect from January 1999 will also have to be borne by the government with increased budgetary allocations. There is a compelling need to increase the passenger fares by a reasonable amount, provided the additional income is satisfactorily used to provide a better quality and more reliable bus service to the public.

Rail Transport

During the year under review, the SLR showed slight improvements in several areas of its operations although it continued to suffer from chronic problems such as insufficient rolling stock and decaying rail infrastructure. Accordingly, the operated kilometerage of the SLR increased by 9 per cent reaching 8.5 million kms. The passenger kilometerage of the SLR also increased by 8 per cent to 3,538 million while the number of passengers carried increased marginally by one per cent to 87.4 million. The operated freight kilometerage indicated an increase of 6 per cent to 102 million ton kms., while the volume of goods carried increased by 4 per cent to 1.2 million metric tons in 1998.

Despite the improvements in the scale of operations of the SLR during 1998, it continued to experience hardships. The problems faced by the SLR are manifold. The weak track, which has resulted in frequent derailments and enforcement of a number of speed limits, poor performance of the rolling stock, an obsolete centralised traffic control and communication system and inappropriate technical specifications etc. can be identified as major problems of a technical nature. Poor worker productivity is one of the major internal social problems, while the unsettled security situation in the Northern and Eastern Provinces is a major external social problem faced by the SLR. These problems are compounded by the unrealistically low rail fares, which are by no means near a cash recovery charge. It is unfortunate that a proposal for raising rail fares in the 1999 Budget had to be withdrawn at the last stage.

In order to cope with this situation, several steps have been taken, especially in the areas of improving the quality of the service, strengthening the rolling stock and developing the infrastructure of the SLR. Accordingly, the train service on the main line (up country) was rescheduled by introducing two new trains especially for the convenience of school children who travel by train between Polgahawela/Kandy and Nawalapitiya/Galaboda. The introduction of the express train between Colombo Fort and Gampaha in the Colombo Suburban Zone helped to ease the evening office train congestion. A new inter-city train was introduced between Galle and Colombo Fort. A day train service operated on the Trincomalee line and the Baticaloa line terminated at Polonnaruwa due to security reasons. Five new sub-stations were opened for train services during 1998. In addition, steps were taken to provide new stations in Kattuwa, Poonawa, Agbopura, Thismalpura and Pinnawala. Meanwhile, the operation of trains on schedule was improved as 60 per cent of trains arrived at their destination on time. The scheduled operations were further improved in the Colombo suburban areas, where up to 75 per cent of trains arrived at their destinations on time. The cancellation of trains accounted for only 5 per cent of total scheduled train journeys during 1998. Regular discussions with Travellers' Associations helped to rearrange the train time tables according to the requirements of passengers.

The SLR continued its efforts to ensure the availability of rolling stock for the regular services. Accordingly, two new Indian locomotives were added to the existing fleet at a cost of Rs.180 million, while an M5 type locomotive, remaining in the re-engining programme was released for service in 1998. An M2 type locomotive, which was stranded in Kankasanturai for nearly 10 years, was brought to Colombo and added to the fleet for normal service after repairs. Four W3 class locomotives were also added to the service after rehabilitation under assistance from the OECF. In addition, a tender was awarded to deliver 10 Broad Gauge locomotives by mid 2000. Approval for the procurement of 15 Diesel Multiple Units of which 6 units will be supplied in 1999, was obtained. This will strengthen the power set fleet. Phase I of the project designed to upgrade the Electric Locomotive Shed at Maligawatta, which will increase the quality of repairs, was completed in 1998.

With a view to improving the condition of the rail track and constructing additional railway lines, the SLR initiated a number of programmes during the year. The Track Rehabilitation Project was continued during 1998 with OECF assistance. In addition, a track length of 40 kms. was also rehabilitated using local funds. The construction of the Polgahawela to Rambukkana duplication track was completed and construction of another duplication track from Panadura to Aluthgama commenced and was concluded during the year. The work on a double line from Ragama to Negombo also commenced during the year. The installation of new

Colour Light Signaling Systems along the coastline was also in progress. Steps are being taken for the electrification of the suburban railway network and a Cabinet memorandum has already been submitted in this connection.

As far as the financial position of the SLR is concerned, the total revenue of Rs.1,113 million in 1998 showed an increase of 8 per cent over the previous year, mainly owing to the sharp increases in revenue from goods transportation and other sources, which accounts for 20 per cent and 27 per cent, respectively. Current expenditure increased significantly by 16 per cent to Rs. 2,030 million due to a 26 per cent increase in maintenance expenditure and a 2 per cent increase in expenditure on salaries. Meanwhile, capital expenditure of Rs.3,504 million indicated a significant drop of 22 per cent compared with 1997, resulting in a drop of 11 per cent in the total expenditure. Consequently, the operational loss of the SLR increased by 29 per cent to Rs. 917 million. As such, the efficient usage of existing resources, as well as a reasonable passenger fare increase is required to minimise the loses incurred by the SLR.

The SLR intends to take several steps in order to improve the rail transportation service. Accordingly, the access to the railway track by freight customers jointly with the SLR under an Open Access Policy to operate freight services will be allowed. The main objective of this policy is to increase the utilisation of the presently under-utilised railway track enabling the SLR to earn an additional income through commercialisation of goods transportation. The Strategic Business Unit has made considerable progress on implementing this policy during 1998. In addition, the National Development Council (NDC) has proposed a management restructuring of the SLR in order to increase the efficiency further. This proposal is to be implemented early by providing a certain degree of management autonomy to the SLR through a Railway Management Council (RMC), while a new concept of setting up of Performance Centers will also be initiated.

Civil Aviation

The Department of Civil Aviation (DCA), as the apex institution in the civil aviation sector of the country, is primarily responsible for ensuring the international safety standards for civil air transportation and operational standards to meet the global industry requirements. The functions of the DCA include work relating to negotiation of bilateral air services agreements and air traffic rights, civil aircraft registration and issuance of airworthiness certificates for civil aircrafts, investigation of air craft accidents, licensing of crew, ground engineering and other operational personnel and air traffic control personnel as well as aerodromes and air services operators. In Sri Lanka, there are 12 domestic airports in addition to the Bandaranaike International Airport (BIA) which functions as Sri Lankas' gateway to the outside world. Most of the domestic airports are sparsely used, for civil flights, while some are mainly used for military purposes. Several private air transport companies who operate aircrafts, primarily under lease arrangements, also use some of these airports in their limited operations.

Ownership of the national airline, Air Lanka Limited, was diversified in 1998 by transferring 26 per cent of its shares to the Emirates Air Lines (EAL) for US dollars 43 million. The management of the Air Lanka was also vested with the EAL. After the diversification and under the new management, the Air Lanka worked out a massive capital investment programme under which it is to purchase 6 new Airbuses, orders for which have already been placed. In addition, scheduled flights have also been rationalised in order that the benefits to Air Lanka will be maximized. The flown killometerage of the Air Lanka increased by 6 per cent, reaching 22,925,000 kms. in 1998. The freight tons carried at BIA indicated an increase of 4 per cent as compared with 1997. The total revenue of the Air Lanka amounted to Rs. 17,608 million. As the operating expenditure amounted to Rs.14,640 million, the after tax net profit of the Air Lanka amounted to Rs.1,642 million.

Although the air passenger transportation sector showed some improvements with the recent diversification of Air Lanka, the civil aviation sector as a whole has not been developed to its potential level to derive the maximum possible benefit to the country. Hence, the International Civil Aviation Organisation (ICAO) has been called upon to audit safety capabilities and to make recommendations towards restructuring the DCA. An action plan has also been prepared by the ICAO and implementation of the proposals in the plan is in progress. The DCA is to be transformed into the Civil Aviation Authority of Sri Lanka (CAASL), which is expected to operate as an autonomous body managed by a board.

The overall performance of the air transportation sector has been stagnating for years basically due to the absence of a committed effort and the inability to adjust suitably to the rapid changes that are taking place in the world. As far as passenger transportation is concerned, only the national carrier has shown some improvements in recent years. Although private operators are willing to provide expanded domestic air transport services, and have already invested a large amount of money, security reasons and the absence of a clear and consistent civil aviation policy have adversely affected their performance. However, there is a considerable potential for developing the aviation sector as a commercially viable industry, in addition to the present achievements which have been mainly concentrated on travel and tourism. Sri Lanka has every possibility of emerging as a hub airport in the region for passenger and freight transit, as well as for other air transportation related services. Setting up an international aviation maintenance facility within the country, development of aviation related manufacturing industries, promotion of aviation related service industries and air freight services are some of the major potential areas that will be beneficial to the industry as well as to the country. As for infrastructure services, the BOO/BOT system could be adopted to attract the required funds locally and internationally to develop the infrastructure needed for the development of this sector.

Port Services

The Port of Colombo has now been ranked among the first 26 container handling ports in the world, in terms of container throughput. The port presently operates at its maximum designed capacity of 1.7 million Twenty Foot Equivalent Container Units (TEUs) per annum. The strategic location of Colombo in close proximity to international shipping lanes and emerging markets in the South Asian region enabled the Port of Colombo to achieve this position within a relatively short period of 18 years, since the commencement of containerisation of the Port of Colombo. However, the rapid growth in cargo handling during recent years apparently came to a halt in 1998 owing mainly to capacity limitations, the impact of the East Asian financial crisis, reduced operational efficiency and more importantly, due to heavy competition for transhipment cargo from other ports in the region. As the Port of Colombo is highly dependent on transhipment cargo (about 75 per cent of the total cargo handling is transhipment cargo) any development in the outside world has a significant impact on its operations. There are a number of new ports and terminals being constructed in the region and one such new port at Salalah in Oman has already been opened for cargo handling since the latter part of 1998. This port at present has a capacity to handle 900,000 TEUs per annum and 1.9 million TEUs per annum on completion by the year 2000. Another new hub terminal at Aden in Yemen is due to be opened in early 1999. In India, several projects have been initiated to upgrade port facilities during the next few years. This includes a new container terminal called Nhava Sehva with a capacity of 500,000 TEUs per annum at the Jawaharlal Nehru Port. The major ports in the Middle East are also expanding. Singapore is also implementing a programme to

TABLE 5.7
Performance of the Port Services

Item	1996	1997	1998 (a)	Percentage Change 1997	Percentage Change 1998 (a)
1 Vessels Arrived (No.)	3,857	4,088	4,233	6	4
Colombo	3,467	3,627	3,879	5	7
Galle	84	56	104	-33	86
Trincomalee	306	404	250	32	(38)
2 Total Cargo Handled (MT '000.)	22,722	26,832	26,847	18	0
Colombo	20,885	25,117	24,793	20	(1)
Galle	236	182	402	-23	121
Trincomalee	1,601	1,533	1,652	(4)	8
3 Total Container Traffic (TEUs '000) (b)(c)	1,356	1,687	1,714	24	2
4 Transhipment Container (TEUs '000) (d)	980	1,232	1,191	26	(3)
5 Revenue (Rs. Mn.)	9,007	10,974	13,638	22	24
Colombo	8,775	10,731	13,221	22	23
Galle	81	81	218	0	170
Trincomalee	151	162	199	8	23
6 Expenditure (Rs. Mn.)	6,551	8,194	8,590	25	5
Colombo	6,188	7,807	8,163	26	5
Galle	150	152	186	2	22
Trincomalee	213	235	241	10	3
7 Net Profit before Tax (Rs.Mn.)	2,456	2,780	5,048	13	82
Colombo	2,587	2,924	5,059	13	73
Galle	-69	-72	32	4	-145
Trincomalee	-62	-73	-42	17	-42
8 Employment (No.)	17,476	19,033	18,957	9	0
Colombo	15,589	17,101	17,181	10	0
Galle	841	831	759	-1	(9)
Trincomalee	1,046	1,101	1,017	5	(8)
9 Productivity Indicators (Main Vessels)					
Gantry Moves per Hour (Gross)	14	16	16	14	0
Gantry Moves per Hour (Net)	15	17	18	13	6

(a) Provisional
(b) Containers are handled only in the Port of Colombo
(c) TEUs = Twenty-foot Equivalent Container Units
(d) Exclusive of Re-stowing

Source: Sri Lanka Ports Authority

expand its capacity substantially. This scenario illustrates that the container handling capacity in the region is growing faster than the rate of growth of transhipment cargo in the region. Under these circumstances, the Port of Colombo urgently needs to expand its capacity while improving its operating efficiency to attract main liners and to continue to function as the hub port in the region.

The total number of ship arrivals at the ports of Colombo, Galle and Trincomalee increased by 4 per cent to 4,233 during 1998. The cargo ship arrivals at the Port of Colombo increased by 7 per cent, while ship arrivals for repairs, bunkering and other services dropped by 20 per cent to 74. Ships arrivals at the Port of Colombo for other services, particularly for bunkering services, have been consistently decreasing over the past few years, mainly due to the relatively higher fuel prices and limited fuel supply at Colombo. Meanwhile, the total cargo handled at the Port of Colombo dropped marginally during 1998, in contrast to a 20 per cent rise in 1997. Container handling in 1998 rose only by 2 per cent to 1,714,000 TEUs, when compared with a 24 per cent increase in 1997. The transhipment container handling dropped by 3 per cent to 1,191,000 TEUs, in comparison to a 26 per cent growth in 1997. However, domestic container handling increased by about 15 per cent to 478,698 TEUs owing to expansion in foreign trade. Meanwhile, the performances at the ports of Galle and Trincomalee improved satisfactorily during 1998. The cargo handling at the Port of Galle increased over two fold, while at Trincomalee it rose by 8 per cent.

There were several factors contributing to the decline in the transhipment container handling at the Port of Colombo during 1998. First, the merger of several main shipping lines such as New World Alliance, and the purchase of APL by NOL resulted in a loss of nearly 100,000 TEUs to the Port of Colombo in 1998. Second, with the opening of the Port of Mina Raysut at Salalah in Oman, the Sealand/ Maersk Consortium diverted a greater portion of their transhipment handling from Colombo to Salalah, resulting in a loss of about 35,000 TEUs. Third, due to an accident, the Jaye Container Terminal (JCT) 2 terminal had to be closed for several months and as a result some vessels by-passed Colombo due to berthing delays. Finally, some alliances withdrew their services from Colombo due to the disintegration of these services and berthing delays in the Port of Colombo. This decline in transhipment handling partly recovered as several new shipping lines commenced their services to Colombo. Furthermore, the deployment of additional equipment at JCT, the opening of a new terminal and the change of the shift system to work 24 hours a day were helpful in reducing the turnaround time of ships to some extent and in preventing further diversion of transhipment cargo.

The SLPA is implementing several projects aimed at enhancing the productivity and expanding the port facilities to meet the future demand for port services. These projects have been designed mainly to enhance the container handling capacity of the Port of Colombo in accordance with the master plan for port development. Most of these projects are funded by JICA. Construction of an eight-high stacking empty container yard with the necessary equipment is in progress with assistance from JICA at a cost of Rs.612 million. In order to enhance the capacity and the productivity of the JCT, additional equipment is being installed at a cost of Rs.1,750 million. Phase I of the North Pier development Project has been completed with the opening of a new container terminal called the Unity Container Terminal (UCT) in November 1998. The capacity of the UCT is 100,000 TEUs per annum. Phase II of the project is to commence shortly to add an additional 100,000 TEUs per annum. The total cost of the project has been estimated at Rs.2,375 million, of which Rs.828 million has been spent for Phase I of the project.

With a view to developing the Queen Elizabeth Quay (QEQ) with private sector participation on a BOT basis, the government entered into a primary project agreement with the South Asia Gateway Terminals (Pvt.) Ltd. during 1998. Under the project, the Quay wall will be widened inwards by 100 meters and 3 container berths will be constructed at an estimated cost of US dollars 240 million. After completion of the project, the container handling capacity of the QEQ will be enhanced to 1 million TEUs per annum from the present 250,000 TEUs per annum. The construction work of the project is to commence in 1999 and will be completed in three stages by 2004. Meanwhile, the SLPA has invited bids to construct an additional feeder berth at the Port of Colombo at a cost of Rs.1,200 million. In addition, steps have also been taken to build a jetty at the Port of Galle at a cost of Rs.900 million to serve the needs of the Southern Province as well as to ease the congestion at the Port of Colombo by diverting break-bulk cargo ships to Galle. The construction of a new pier at the Trincomalee harbour at a cost of Rs.2,000 million has also been planned.

It has been proposed to construct a new South Port of Colombo outside the QEQ to meet the long-term demand for port services. According to the tentative plans, this port would have 11 berths with deeper drafts with capacity to handle 4 million TEUs per annum. The engineering study for this project will be undertaken shortly. At the same time, the government has recognised the need for developing a new outer harbour at the Port of Galle. It has been proposed that the breakwater and dredging of the approach channel and harbour base of the port would be constructed by the government, while construction of terminals would be carried out by the private sector on a BOT basis.

The gross revenue of the SLPA during 1998 increased by 24 per cent to Rs.13,638 million mainly due to an increase in port tariff towards the end of 1997 and an increase in other income. Total expenditure at Rs.8,590 million, reflected an increase of 5 per cent. As a result, the SLPA posted a gross profit of Rs.5,048 million for 1998, as compared with Rs. 2,780 million in 1998.

5.7 Irrigation and Settlement Schemes

The main activities of the Mahaweli Development Programme during 1998 were management restructuring, systems development and rehabilitation activities. The Mahaweli Authority of Sri Lanka (MASL) implemented a voluntary early retirement package as a part of its management restructuring and re-organisation. The total expenditure incurred during the year amounted to Rs.1,844 million. The total extent cultivated under the Mahaweli command area reported a marginal increase from 118,371 hectares in 1997 to 119, 574 hectares in 1998.

During 1998, rehabilitation work in System H under World Bank funding continued, while development activities of the Walawe Left-Bank Extension area commenced. Operations of the Minipe Nagadeepa Irrigation Rehabilitation Project (MNIRP), the National Irrigation Rehabilitation Project and the North Western Province Special Irrigation Project (NWPSIP), the three major foreign funded projects, continued in 1998 as well. Under these programmes Rs.488 million, Rs.567 million and Rs.65 million, respectively, were spent during the year. Under the MNIRP, rehabilitation work on 24 major and medium schemes and 952 minor schemes had been completed by the end of the year. Under the NWPSIP, work on 9 schemes was completed. The 'Yaya' demonstration pilot programme, in operation since 1994, was extended to all the Mahaweli System areas during the year. The MASL also took measures to extend seed paddy production programmes further. In addition, action has been taken to establish farmer companies beginning with a new Farmer Company Plan established at the Chandrikawewa Block, Uda Walawe.

5.8 Special Programmes

Housing

The demand for housing, particularly for urban housing, is growing rapidly with the expansion of the urban population. According to a recent report of the Presidential Task Force on Housing and Urban Development, the backlog of urban housing has been estimated at 169,111 units at end 1996. It has also been estimated that the housing requirement during the period 1998 - 2005 would be 511,987 units of which 322,556 units would be in the urban sector. Of the total housing requirement, the state sector and private developers are expected to provide about 20 per cent and 23 per cent, respectively while the balance (57 percent) is expected from individuals. In order to expand the housing supply adequately, the housing policy should aim at attracting private investments into this industry, while facilitating individual house builders.

During 1998, public sector housing construction indicated further improvement. The National Housing Development Authority (NHDA), which is primarily responsible for the implementation of state sector housing programmes, implemented seven major housing programmes, namely, Janaudana programme, 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), during 1998. The performance of the public sector housing development programmes showed a significant progress in terms of the number of housing units commenced and units completed during the year under review. The total number of housing units commenced under the public sector housing programmes rose sharply by 52 per cent to 51,630 housing units, while the number of units

TABLE 5.8

Expenditure on Selected Major Foreign Funded Irrigation Schemes

Name of Project	Source of Aid (a)	Total Foreign Aid Commitment (In Mn.)	Expenditure in 1997 (b) (Rs.Mn.)	Expenditure in 1998 (c) (Rs.Mn.)	Cumulative Expenditure at end 1998 (Rs.Mn.) (c)
1. Minipe Nagadeepa Irrigation Rehabilitation Project					
(i) Mahaweli Bridge			283	256	961
(ii) Irrigation	OECF	J.Yen 1,850	78	232	815
2. North Western Province Special Irrigation Project	CEC	ECU 6.3	105	65	628
3. National Irrigation Rehabilitation Project	IDA EEC	Rs.1,406.9 Rs.1,622.6	512	567	2,199

Source: Irrigation Department.

(a) JICA - Japanese International Co-operation Agency
OECF - Overseas Economic Co-operation Fund (Japan)
CEC - Commission of European Communities
IDA - International Development Association (World Bank)
EEC - European Economic Community

(b) Revised
(c) Provisional

Box 6

Greater Colombo Housing Approval Index (GCHAI)

Housing construction is an important economic activity and is an important part of domestic capital formation. There is no suitable criterion to gauge the volume and trends in housing construction in the country at present. While certain field surveys contain some information on dwellings, it is nevertheless difficult to obtain those data on a continuous basis. The Central Bank of Sri Lanka (CBSL) collects data relating to building approvals by the Colombo Municipal Council (CMC), including apartment complexes, and these are published in the monthly Bulletins. The coverage and the presentation of these data are limited and need to be improved. The limited availability of land and the high prices restricted housing construction within the CMC. Hence, it is necessary to widen the coverage, at least to include the Greater Colombo area, to obtain more representative information on the subject. In addition, an index for housing construction would be helpful in analysing the relationship between housing construction and general economic trends, in forecasting future economic trends and in identifying housing investor sentiment in response to changes in economic policies.

With the objective of preparing an index for housing construction, the CBSL collected monthly data from 1995 relating to housing approvals by 15 Local Government Authorities (LGAs) comprising 4 Municipal Councils (MCs), 3 Urban Councils (UCs) and 8 Pradeshiya Sabhas (PSs) in the Colombo, Gampaha and Kalutara districts. The density of population and proximity to Colombo were the main criteria used in selecting the LGAs. The population of these 15 LGAs represented 54 per cent of the population in the Western Province and 15 per cent of the total population of the country.

A simple housing approvals index was computed for different categories of floor area (Table I). Monthly and quarterly indices were also prepared.

The GCHAI (1995 = 100) had dropped to 93.3 in 1996 and risen somewhat to 95.7 in 1997 and further to 96.7 in 1998. Approvals of medium size houses (1000 - 2000 sq. ft.) had increased by about 3 per cent during this period. Approvals of small houses (less than 1000 sq. ft.) had declined by about 16 per cent, while approvals of larger houses exceeding 2000 sq. ft. had grown by 3 per cent during this period. Although, there was an expansion in housing construction in 1997 and 1998 after a setback in 1996, housing approvals in 1998 were lower than in 1995. The change in the GCHAI is comparable to the growth rates in the construction sector.

An index of approvals for all categories of buildings (residential, commercial, and other) was also computed (Table II). This index also follows the same trend as the index for residential buildings.

TABLE I

Greater Colombo Housing Approvals Index for Residential Buildings (GCHAI)

(1995 = 100)

Period		No. of Approvals				GCHAI (1995 = 100)			Overall Index
		<1000 sq. ft.	1000-2000 sq. ft.	>2000 sq. ft.	Total	<1000 sq. ft.	1000-2000 sq. ft.	>2000 sq. ft.	
1995		3,462	4,094	3,101	10,657	100	100	100	100
1996		2,895	3,906	3,144	9,945	83.6	95.4	101.4	93.3
1997		2,986	4,152	3,066	10,204	86.3	101.4	98.9	95.7
1998		2,908	4,213	3,186	10,307	84.0	102.9	102.7	96.7
1997	Q1	620	924	702	2246	79.2	94.7	93.7	89.5
	Q2	773	1019	750	2542	98.7	104.4	100.1	101.4
	Q3	831	1112	860	2803	106.1	113.9	114.8	111.8
	Q4	762	1097	754	2613	97.3	112.4	100.7	104.2
1998	Q1	673	976	754	2,403	85.9	100.0	100.7	95.8
	Q2	647	895	717	2,259	82.6	91.7	95.7	90.1
	Q3	765	1,202	973	2,940	97.7	123.2	129.9	117.2
	Q4	823	1,140	742	2,705	105.1	116.8	99.1	107.6

The ideal index to meet the objectives stated above would be a Housing Starts Index (HSI), which shows the actual commencement of construction of houses. However, the information needed for compiling such an index is not available with LGAs or with any other

Box 6 (contd.)

TABLE II
Greater Colombo Housing Approval Index for all Buildings

(1995 = 100)

Period		No. of Approvals	Index (1995 = 100)
1995		13,379	100.0
1996		11,243	84.0
1997		11,173	83.5
1998		11,620	86.9
1998	Q1	2,747	85.4
	Q2	2,593	80.6
	Q3	3,278	101.9
	Q4	3,002	93.3

institutions. Some LGAs, especially MCs, keep records of the issuance of Certificates of Conformity (COC), which are normally issued by LGAs at the completion of construction work. However, it has been observed that COC issues are highly under recorded due to the fact that some individuals do not apply for a COC even though they have completed construction work.

Thus, the GCHAI should be treated as an approximate index to identify the trends in housing construction. This index will be regularly updated and published by the CBSL.

completed rose by 17 per cent to 39,807 housing units. Total loans and grants provided under public sector housing programmes amounted to Rs.888 million, recording, a 39 per cent growth, compared to 1997. In 1998, the performance of the Janaudana programme and RHP slowed down, compared to 1997, as much attention was paid to solving the urban housing problem. However, as at end 1998, a total of 196 Janaudana villages with 11,484 housing units had been completed. Under the UHP, a sum of Rs.65 million. was granted during 1998, as against Rs.16 million in 1997. Accordingly, construction of 7,300 housing units were to commenced during the year, while 5,070 housing units were completed by end 1998. Keeping in line with the government policy of providing own houses for estate workers, the NHDA, jointly with the Plantation Housing and Social Welfare Trust (PHSWT), implemented the EHP. Under the EHP, each beneficiary is given a loan of up to Rs.30,000 at an interest rate of 15 per cent per annum and recoverable within 15 years. During 1998, under the EHP, 2,224 housing units were begun, while 1,397 units were completed. Total loan disbursements under the EHP increased by 4 per cent to Rs.20 million by end 1998. The NHDA was directly involved in the construction of houses to be sold at a reasonable price, particularly to urban middle class families, under its DCP. During 1998, the construction of 810 such housing units was begun and 400 units were completed at a cost of Rs.339 million. The DHP has been designed especially to provide houses to displaced families in the Northern and Eastern Provinces. Some of these families have opted to resettle in the Southern region so that housing facilities were provided there. Under the DHP, 2,351 housing units were completed, while the construction of 82 new units was begun at a total cost of Rs.25 million.

Meanwhile, several other agencies, such as the PHSWT, the Mahaweli Authority of Sri Lanka and the Ministry of Fisheries and Aquatic Resource Development, implemented several housing programmes to cater to the needs of specific sections of the population during the year. The PHSWT continued to provide housing loans and infrastructure facilities, such as survey of land, access roads, water supply and sanitation facilities for estate workers, under the Social Welfare Programme II (SWP II). Under this programme, 794 new housing units were constructed and 1,075 units were upgraded during 1998, compared with 298 new housing units and 420 upgraded units in 1997. Further work on 1,135 housing units was in progress by end 1998. A sum of Rs.41 million was spent for these programmes under the SWP II during the year. The Ministry of Fisheries and Aquatic Resource Development introduced a new 'Diyawara Gammana' housing project in 1997 for the benefit of those engaged in fishing. During 1998, a total of 741 housing units was completed at a cost of Rs.107 million under this project. There were no new settlements under the Mahaweli Programme during 1998. Meanwhile, action has been initiated under the Clean Settlement Project to resettle an estimated 60,000 households living in slums and shanties within the Colombo Municipal limits. The project has been designed to provide housing facilities to these households without creating a burden to either the government or the beneficiary, through the creation of a financial instrument backed by the land released due to resettlement.

Housing construction undertaken by individuals also expanded during 1998. According to the Greater Colombo Housing Approval Index (GCHAI), compiled by the Central Bank, housing approvals by the Local Government Authorities in the Greater Colombo area improved by 4 per cent to 11,620 during 1998. (Please see Box 6) Commercial banks and other financial institutions actively participated in granting housing loans for construction of individual houses during 1998. In addition to the two state banks, other financial institutions such as the State Mortgage and Investment Bank (SMIB), National Savings Bank (NSB),

TABLE 5.9
Public Sector Housing Programme

Sub Programme	Units Commenced (No.)		Units Completed (No.)		Disbursements (Rs.Mn.)	
	1997	1998(a)	1997	1998(a)	1997	1998(a)
Janaudana Programme	6,582	16,083	9,751	9,010	142	180
Rural Housing Programme Scattered Loan & Grant Programme	23,307	23,102	20,705	19,933	305	211
Urban Housing Programme Scattered Loan & Grant Programme	1,279	7,300	845	5,070	16	65
Estate Housing Programme	1,008	2,224	883	1,397	19	20
Direct Construction Programme	562	810	92	400	123	339
Disaster Housing Programme (Southern Province)	184	82	1,571	2,351	23	25
Fisheries Housing Programme	1,006	2,029	180	1,646	10	49
Total	33,928	51,630	34,027	39,807	638	889

(a) Provisional

Source: National Housing Development Authority

Housing Development Finance Corporation of Sri Lanka Ltd. (HDFC), the Insurance Corporation of Sri Lanka and some private commercial banks were involved in financing the construction of houses. People's Bank introduced five new housing loan schemes namely, "Siyatha" (for Sri Lankan returnees from Kuwait), "Videsika" (for Sri Lankan employees abroad), "Shakthi" (for Employees of Associated Motorways, Kalutara), a loan scheme for members of the Sri Lanka Working Journalists' Association and a loan scheme for employees in the government sector. People's Bank also continued its former housing loan schemes. In total, the bank had granted 16,359 housing loans worth Rs.904 million by end September 1998. According to People's Bank, the repayment of housing loans granted against EPF balances is unsatisfactory. In 1998, the number of housing loans granted by the SMIB dropped by about 6 per cent to 8,913, although the value of loan disbursements rose by 11 per cent to Rs.1,590 million. In addition to the normal housing loan facilities, the SMIB has started a new housing loan scheme for estate sector employees against their individual EPF balances. Generally, a loan of Rs.25,000 is given under this scheme and as at end 1998, more than 5,000 such loans had been granted under this project. The major problem that confronts the SMIB is the mismatch of funds.

There has been a growing demand for housing loans provided by the NSB in 1998 largely due to the relatively low interest rates (between 14-15 per cent) charged by the NSB in relation to other housing financing institutions and due to the expansion of its branch network. The total number of housing loans granted by the NSB rose by 93 per cent to 1,851 in 1998. The total value of loans disbursed also grew twofold to Rs.711 million. Meanwhile, the HDFC had granted 4,745 housing loans by end October 1998 as against 4,368 housing loans granted in the previous year. The total value of housing loans granted by the HDFC during 1998 at Rs.530 million, indicated an increase of 11 per cent over the previous year. The average rate of interest charged by the HDFC remained unchanged at 16 per cent per annum during the year. A high incidence of non-performing loans and a lack of low cost funds were some of the problems faced by the HDFC in expanding its housing finance programme.

Urban Development

The Urban Development Authority (UDA) was established in 1978 for the purpose of promoting the integrated planning and development of major urban areas in Sri Lanka. Accordingly, the development of infrastructure facilities within the 14 Municipal Councils (MCs) and some selected 34 Urban Councils (UCs) and 68 Pradeshiya Sabha (PSs) areas are carried out under the purview of the UDA. The UDA has the prime objective of creating a sustainable, healthy and dynamic urban environment. Accordingly, the UDA continued to implement projects such as construction of administrative and commercial complexes, town improvement projects, industrial complexes, integrated projects and social and cultural projects during 1998. In addition, the UDA undertook infrastructure development projects on behalf of clients and implemented the ADB funded Urban Development Sector Project. The UDA also continued to maintain the Land Bank. The total cost of implementing these programmes amounted to Rs.778 million in 1998, compared to Rs.765 million in 1997.

Of the total investment of the UDA, 77 per cent or Rs.602 million was spent on projects undertaken on behalf of clients. Of this, almost 63 per cent (Rs.492 mn.) was spent under the Urban Development Sector Project (UDSP) which is partly funded by the ADB. The UDSP was launched with the objective of providing infrastructure facilities to 17 small and medium scale towns in the island. Developing water supply and sanitation facilities for low cost houses, upgrading shanties, constructing roads and bridges, constructing drainage networks, solid waste management, town centre development and opening industrial estates are

Box 7

Real Estate Development and Bank Financing

The real estate sector witnessed a significant expansion during the last few years in response to rising demand and generous fiscal incentives offered to property development activities. Attractive tax incentives offered by the BOI encouraged both local and foreign entrepreneurs to invest in the real estate sector. Consequently, a total of 147 projects with a value of Rs. 99 billion had been approved by the BOI by the end of 1997. The Central Bank conducted a survey to examine the present status of some major real estate development projects located in Colombo and the suburbs, with special attention to the rate of occupancy and financial viability of the projects. A total of 33 large property development firms located in the Colombo City and suburbs were covered under this survey. The survey was conducted during July-August 1998. Sample was selection was based on information obtained from the BOI and a few banks. The main selection criterion was the cost of the construction project. New construction projects with costs exceeding Rs.200 million were included in the survey. Following are the findings of the survey.

Of the 33 companies surveyed, 14 had residential construction projects, 11 had office buildings and 3 were commercial building projects, while the rest of the projects were combinations of residential/commercial and/or office projects. Overall, the 33 projects had a total office and commercial floor area of 2.8 mn. sq. ft. and 2,230 apartment units. Of the projects surveyed, 73 per cent were fully owned by locals, while foreign investors and domestic and foreign joint venture companies owned the rest. All companies except 2 had BOI status. The total project costs amounted to Rs. 31,000 million. Of the 33 projects surveyed, only 23 projects were in full commercial operation. The average occupancy rate for commercial/office floor area was 70 per cent, while for residential units it was 64 per cent. Of the total establishments, 25 buildings were under-occupied. Negotiations were in progress with prospective tenants for the sale, rent or lease of the property in the case of 17. Agreements had already been reached with clients in the case of the remaining 8 establishements. About 50 per cent of the buildings had full occupancy.

In order to examine the financial viability, indicators such as the sources of funds, repayment capacity, outstanding loan amounts and loan rescheduling were considered. The major sources of capital funds for the projects surveyed were - share capital, own capital and long-term loans. Two companies had issued debentures, while 8 companies had obtained foreign loans. The total amount of long-term loans taken by all companies surveyed was Rs.7,554 million, of which Rs.6,006 million was outstanding at the time of the survey. Of the outstanding loan amount, about 56 per cent was due from residential property developers, while 21 per cent was due from commercial cum office property developers. The main sources of long-term loans for projects surveyed were commercial banks (both domestic banking units and foreign currency banking units) and Development Finance Institutions. Over 50 per cent of property developers had taken loans from commercial banks. The total amount of loans extended by commercial banks to the property development projects surveyed amounted to Rs.2,834 million, while the two major long-term lending institutions had provided Rs.1,680 million.

Some developers had not yet commenced loan repayments. About 25 per cent (7 projects) of property developers surveyed has applied for loan rescheduling, while about 45 per cent indicated that they had no difficulty in repaying their loans. The total outstanding local loan amount of those who had applied for loan rescheduling was Rs.1,598 million. Half of the requests were from residential property developers.

According to the survey, the average rate of rent/lease of commercial/office spaces was Rs.61.75 per sq.ft. with a highest rate of Rs.87.50 per sq.ft. for property in Colombo 4. The lowest rate was recorded in Colombo 3.

The general security situation and slow growth in demand due to economic slow down were the major reasons for the low rate of occupancy. Increasing costs of building materials, slow recovery of tourists arrivals, some legal barriers (e.g. the Condominium Act restricts the lease/sale of apartments below the 6th floor to foreigners) were some other immediate constraints experienced by real estate developers. Demand for office and commercial premises has been adversely affected by the security situation, whereas demand for residential premises has been affected by the economic slow down.

Many property developers expressed concern regarding the high interest rates. They were of the view that at the present level of interest rates, property development projects were not viable unless at least 75 per cent of the project cost was raised by way of equity.

Box 7 (contd.)

Almost all property developers expressed concern about the complicated administration procedures and bureaucratic red tape, which had increased the cost of construction and resulted in unnecessary delays.

There was an excess demand for low and middle-income houses. In this regard, a major problem appears to be the difficulty faced by prospective homeowners to obtain bank loans, as banks are reluctant to grant loans on mortgages of apartments. Demand for commercial and office premises has been restricted as many residences in and around Colombo have been converted into office or commercial premises. This has resulted in various other problems as due consideration has not been paid to environmental and socio-economic consequences of such conversions. Despite all these drawbacks, several property developers mentioned that they would engage in new investment once the economy recovers from the current depressed situation.

Some broad conclusions can be drawn from the survey results. The average rate of occupancy of commercial/office and residential premises is 70 per cent and 64 per cent, respectively. At this level of occupancy, most companies are in a position to cover only the operating expenses, excluding debt repayments. As a result, about 21 per cent of the surveyed companies have already applied for loan rescheduling. In order to increase the occupancy, some companies have reduced their rental charges, which, in turn, could lead to further reduction in their income. Several companies have housed offices of their subsidiaries in under-utilised buildings to minimise the loss. Loan repayments by several companies have also been backed by parent companies. Unless the occupancy rate improves further, the financial position of the real estate sector would be weak.

According to the survey, total long-term loans taken by real estate development companies amounted to Rs.7,554 million, of which Rs.3,854 million was from local sources. Of the local loans, 59 per cent or Rs.2,284 million was taken from commercial banks. According to the Central Bank's Quarterly Survey of Bank Advances, by end September 1998, credit for property development and construction of business premises amounted to Rs. 7,338 million (3.2 per cent of credit to the private sector), while total credit to the entire real estate sector was 13 per cent of credit to the private sector. Therefore, although the exposure of commercial banks to the real estate sector does not appear to be excessive at present, caution should be excercised in further expanding the provision of credit to this sector.

some of the activities carried out under this project. Meanwhile, the UDA spent Rs.53 million during the year for the further improvement of facilities of the administrative complexes at Battaramulla and Pelawatte. The development of the Avissawella urban area and Dambulla town was carried out at a cost of Rs.15 million. The expenditure on the improvement of low cost housing, public servants' housing and middle income housing schemes amounted to Rs.20 million. The UDA also undertook several industrial development projects at Homagama and Ratmalana. Meanwhile, a sum of Rs.82 million was spent by the UDA on integrated projects and Rs.22 million for acquisition of lands for the Land Bank.

The UDA completed the formulation of a comprehensive regional structure plan for the Colombo Metropolitan Region during 1998. The major objective of this plan is to reduce the high population concentration in the City of Colombo and its suburbs. In addition, Regional Draft Structure Plans have also been prepared in respect of the Sabaragamuwa, Uva, Central, North Western and Southern provinces. Further, the UDA has commenced formulation of urban development plans at district level. Accordingly, urban plans are being prepared in respect of 22 selected towns in 7 provinces. Under the integrated planning and physical development programme, the UDA undertook the work relating to the Gampaha District Integrated Urban Development Project, compilation of the Kandy sacred area development plan, the Warakapola Town Development Project, the Balangoda Town Extension Project and the Nuwara Eliya Lake Gregory Development Project. The UDA is also responsible for the planning and co-ordination of the Ruhunupura Project as identified by the Southern Development Authority. In the meantime, the UDA acts as the co-ordinator for the Sitawakapura Industrial Estate Project under which 168 acres of land are being developed for the purpose of locating 77 small, medium and large scale industries.

Water Supply and Sanitation

The demand for a reliable supply of pipe-borne water is growing rapidly due to the expansion in the population as well as due to the escalating demand from the commercial and industrial sectors. At present, the total water production of the National Water Supply and Drainage Board (NWS&DB), is growing at about 3 per cent per annum. According to the recent Consumer Finances and Socio Economic Survey 1996/97 of the Central Bank of Sri Lanka, only about 31 per cent of the population has access to pipe-borne water. As stated in the Report of the Presidential Task Force on Housing and Urban Development, the annual investment in the water supply sector has to be increased by about three times the present level to meet the present demand for safe drinking water.

The NWS&DB is the prime institution responsible for planning, designing, constructing, operating and maintaining the water supply facilities in the country. During 1998, it managed 276 water supply schemes. The total water production of the NWS&DB, at 297 million cubic meters, indicated only a 3 per cent increase over the previous year. The total number of connections given by the NWS&DB rose by 11 per cent (47,694) to 438,384 as a large number of major and minor water supply schemes was completed during the year. About half of the new connections were given to the rural sector.

The government's goal is to provide safe drinking water for all by the year 2010. By end 1998, about 66 per cent of the population had access to safe drinking water (pipe borne, tube wells and protected dug wells). In the urban areas, 90 per cent of the population had access to safe drinking water, while in the rural sector only about 57 per cent enjoyed this facility. This emphasises the need for further expansion of water supply facilities in the rural sector in order to improve the hygienic conditions of the rural population. The expansion in urban population, inadequate availability of safe drinking water in rural areas and high growth in industrial and commercial activities have forced the authorities to engage in urgent expansion of the water supply facilities in the country. With this end in view, the NWS&DB spent a sum of Rs.2,533 million on the water supply sector during the year under review. Of the total investment, 58 per cent was financed from foreign sources such as IDA, ADB, OECF and ODA on concessional terms. The major water supply schemes (WSS) completed by the NWS&DB during the year included the Matara WSS, Nilambe WSS, Towns East of Colombo WSS, Udunuwara – Yatinuwara WSS, Deraniyagala WSS, Balapitiya – Demodara WSS, Udappuwa WSS and Marandagahamula WSS. The second water supply and sanitation project funded by the ADB to carry out rehabilitation work on 16 water supply schemes in the Western and Central provinces was in progress during 1998. The third water supply and sanitation project, also funded by the ADB aims at strengthening the private sector, local authorities and community organisations to monitor and manage their own water supply schemes in rural areas. Preliminary studies are being conducted in respect of the Kalu Ganga Project to enhance the water capacity of the Colombo WSS by 6,000 cubic meters per day through the intake of water from the Kalu Ganga. Meanwhile, with the objective of expanding the water supply facilities in rural areas, the Community Water Supply and Sanitation Project (CWSSP), funded by the IDA continued to be implemented during 1998 under several sub-programmes, such as the Village Water Supply and Sanitation Programme, the School Water Supply and Sanitation Programme and the Small Town Water Supply and Sanitation Programme. The CWSSP aims at providing water and sanitation facilities to 680,000 people living in 2,800 villages and in 12 small towns in the Badulla, Matara, Ratnapura and Moneragala districts.

Total revenue of the NWS&DB rose by 19 per cent to Rs. 2,404 million in 1998. This increase in revenue was largely attributable to the upward revision of the water tariff with effect from 1 March 1998. In this tariff revision, the tariff applicable to the domestic sector was raised by 20 – 39 per cent. The tariff rates applicable to the industrial and commercial sectors were raised by a low rate of 9 per cent, while the tariff for tourist/guest house category increased by 10 per cent. The main objective of the water tariff increase was to recover a part of the increased cost of water production, due to increased electricity bills and rising emoluments to employees. Another objective of the tariff revision was to reduce the cross subsidy between different categories of water consumers. In addition, the tariff revision was also intended to motivate people to conserve water and reduce wastage by giving an economic value to water. Another concern over the water supply sector of the country is the high proportion of unaccounted water, amounting to 42 per cent, mainly due to unattended leakages, illegal tapping, stand posts etc. The NWS&DB would benefit significantly if the proportion of unaccounted water is reduced to an acceptable level through timely and effective maintenance of the distribution network. Private sector participation, particularly in the areas of distribution, maintenance and revenue collection within some franchised areas, could enhance the productivity in this sector.

The operational and maintenance expenditure of the NWS&DB grew by 13 per cent to Rs.1,952 million in 1998. Accordingly, the operational surplus of the NWS&DB, before interest and tax, amounted to Rs.488 million as compared with Rs. 316 million in 1997.

Integrated Rural Development Programme

The Integrated Rural Development Programme (IRDP) commenced in 1979 as a district programme with heavy investment in infrastructure development. The objective of the programme was to widen economic opportunities and enhance general living standards of the people in rural areas and to reduce inter and intra district disparities to promote a balanced growth with an effort to encourage local initiative and meet local needs. The programme developed gradually, and since 1989, the focus had been on increasing private sector participation and strengthening a participatory approach. From 1997, the IRDP was reoriented towards a rural economic advancement programme, focussing more attention on employment and income generating activities.

At present, the IRDP consists of 19 projects covering 15 districts. The total expenditure incurred under the IRDP during 1998 was Rs.1,508 million as against Rs.1,375 million spent during 1997. The Area Based Growth with Equity Programme (ABGEP) in the Uva Province and the Batticaloa District Rehabilitation and Development Project commenced in 1998. The UNDP funded ABGEP has an estimated project cost of Rs.328 million and is spread over a five year period. ABGEP has a national and a provincial component. During the year a sum of Rs.3 million had been spent under the programme. The Rehabilitation and Development Project of the Batticaloa District is funded by the NORAD. An investment of Rs.520 million over a six year period is envisaged under this programme. During the year, Rs.53 million had been spent under this programme.

The Southern Province Rural Development Project (SPRDP) completed its eighth year of implementation in 1998. The amount expended under the SPRDP during the year was Rs.531 million and accounted for over one third of the total expenditure incurred under the IRDP during the year.

The expenditure incurred under the Asian Development Bank funded North Central Province Rural Development Project amounted to Rs.238 million.

Samurdhi Programme

In Sri Lanka, the successive governments since independence have implemented various programmes to support the poor by way of income transfers in kind or in cash. The Samurdhi Programme was introduced in 1995 in order to reduce the problems of the under-privileged, by providing benefits in a meaningful way to uplift their economic and social conditions, as well as to address their problems relating to unemployment. Accordingly, almost all the social benefit schemes hitherto operated by different institutions were brought under this Samurdhi Programme. The total number of beneficiary families in the Samurdhi Programme as at end 1998 was 1,973,183, which was a marginal decline, compared to 1997. This decrease was a result of the policies implemented during 1998 in order to bring the total number to a realistic level by restricting new entrants and removing non-eligible families. Despite this decrease, Samurdhi beneficiaries still account for about 51 per cent of the total number of families though it is estimated that the number of families in the low income group should be around 30 – 40 per cent of the total. This situation has adverse effects on the entire programme by preventing the really deserving groups from receiving improved benefits. Therefore, more emphasis should be placed on better targetting.

During the past 4 years, the Samurdhi Programme has grown into a massive poverty alleviation programme, dealing with a wide array of activities. It has now changed from a simple income transfer scheme to a much more comprehensive programme including banking, insurance, savings, training, infrastructure development and self employment. The institutional framework of the Samurdhi programme has also been set up to facilitate policy formulation and implementation, monitoring and measuring the feedback. The Ministry of Samurdhi, Youth Affairs and Sports (MSYAS) is primarily responsible for formulating policies relating to the Samurdhi Programme. Three other institutions, namely, the Department of Poor Relief (DPR), the Samurdhi Authority of Sri Lanka (SASL) and the Department of the Samurdhi Commissioner General (DSCG), are responsible for the execution of the Samurdhi Programme at national level under the direction of the MSYAS. The district Samurdhi offices at District Secretariats and the divisional Samurdhi offices at Divisional Secretariats function as the second and third level implementing branches of the Samurdhi Programme. The Samurdhi Zonal Offices which operate under Samurdhi Zonal Managers, are the fourth level of the organisational structure. The Samurdhi Task Forces functioning at the Grama Niladhari divisional level act as the fifth level of operation of the Samurdhi Programme.

The DPR is responsible for the identification of beneficiaries and implementation of relief programmes, special nutritional programmes and distribution of dry ration cards to displaced families. The DPR implements the Samurdhi Relief Programme (SRP) in all districts except those in the Northern Province where the programme is operating only in the Vavuniya South Divisional Secretariat (DS) Division. The total cost of the SRP at Rs. 7,963 million in 1998, was a decrease of 3 per cent, compared to 1997. Under the relief programme, about one per cent of the beneficiary families who were considered as ultra poor received Rs.1,000 per month, while another 45 per cent or 896,783 families received Rs. 500 per month. In addition, another 323,710 families received Rs. 200 per month, while 216,445 families received Rs. 100 per month, depending on the number of members in the household. Meanwhile, 521,886 families, including former Janasaviya recipients, received a monthly allowance of Rs. 250. The DPR also continued issuing dry ration cards to displaced families at a cost of Rs. 1,265 million, while 78,430 nutrition cards worth Rs. 75 million were distributed under the nutritional allowance programme during 1998.

The DSCG is basically responsible for the operation of human resource development and institutional development programmes for effective implementation of the Samurdhi Programme. In addition, implementation of the social security network, initiation of family based economic, social and cultural development programmes as well as planning, monitoring and evaluation of the Samurdhi Programme are the responsibility of the DSCG. By end 1998, 21,257 Samurdhi Animators had been appointed in 13,560 Grama Niladhari divisions by the DCSG to carry out programmes identified under the Samurdhi Programme at village level. This includes 6,667 permanent Samurdhi Animators and 841 permanent Govi Animators. The DSCG also continued the operations of the Samurdhi Social Security Fund (SSSF), which was set up with a view to assisting beneficiaries to meet the expenses of their urgent social obligations. A total of Rs.212 million had been paid in respect of 80,675 claims during 1998. The new Samurdhi Janatha Project (SJP) Programme begun in 1998, had approved 1,536 projects, while the expenditure incurred as at end 1998 amounted to Rs. 199 million. The SJP programme aims to create employment opportunities in the agricultural sector by way of improved irrigation facilities in relevant areas in order to enhance agricultural production and income levels of the poor.

Among the major activities of the SASL are the development of community organisations and human resources. In line with this, the SASL continued its activities with regard to two types of savings schemes, namely, the Compulsory Savings Scheme and Voluntary Savings Scheme for Samurdhi beneficiaries. Beneficiaries who receive Rs, 1,000 and Rs. 500 per month respectively are required to save Rs. 200 and Rs. 100, respectively, under the Compulsory Savings Scheme. The total savings under this scheme increased by 40 per cent to Rs.3,818 million by end 1998. The Voluntary Savings Scheme, on the other hand, is intended to motivate Samurdhi beneficiaries to save through small groups at the grassroots level. At end 1998, a total of Rs. 407 million had been saved under the Voluntary Savings Scheme.

The Rural Community Projects programme (RCP), aimed at providing small scale rural infrastructure facilities for the benefit of low-income groups, continued during 1998. Under this programme, 6,045 projects were completed at a cost of Rs. 350 million in 1998. In addition, the Small Industry Development Programme (SIDP), which was introduced in 1998, has now been extended to 8 DS divisions. Under the SIDP, the Samurdhi beneficiary families are provided with the necessary capital funds and marketing facilities to set up small industries with a view to improving their income levels. As at end September 1998, there were about 311 persons engaged in those small industries and an amount of Rs. 8 million had been provided as credit.

The system of Samurdhi Banking Societies (SBSs) continued to function under the SASL. These societies envisage to educate the poor regarding banking practices, promote savings among them, improve the income levels through increased investments and strengthen their production capacity through the provision of necessary support services. At the end of 1998, the total number of SBSs amounted to 517 with a membership of 639,106. The amount of deposits was Rs.457 million at end 1998. Further, the SBSs have provided 68,300 members with credit amounting to Rs.237 million to carry out projects in agriculture, fisheries etc. The SBSs have grown significantly owing to the increased amount of deposits and active participation by Samurdhi recipients. This progress has been greatly supported by the assistance provided by the government, especially by way of infrastructure facilities. As a removal of these facilities could make the scheme unviable, the SBS may themselves need to acquire these facilities to strengthen the system. In addition, adequate auditing, monitoring and evaluation procedures should be put in place to avoid any possibility of financial mismanagement.

Meanwhile, with a view to assisting Samurdhi recipients to start and improve their existing income generating activities, the Samurdhi Development Credit Scheme (Sasana) is being implemented by the SASL. By end September 1998, a total of Rs. 449 million had been granted to 76,270 sub-borrowers in Samurdhi families. These loans carry a concessionary interest rate of 10 per cent per annum with a maximum repayment period of 2 years. The Samurdhi Entrepreneurship Development Credit Scheme (SEDCS) was also implemented in collaboration with the Bank of Ceylon (BOC) and the People's Bank (PB). This aims at providing opportunities to Samurdhi recipients to raise funds for self employment and to develop entrepreneurship. Under this programme, BOC and PB had provided loans totaling Rs.6 million by end August 1998. The maximum loan amount under the SEDCS is Rs 50,000, while the interest rate is 10 per cent. The loan has to be settled within 3 years, depending on the income generated.

The total expenditure on SRP in 1998 amounted to Rs.7,963 million. In addition, a sum of Rs.420 million had been incurred as salaries for Samurdhi Niyamakas, while the capital expenditure of the programme was Rs.780 million in 1998.

5.9 Environment

The important relationship between the environment and macro-economic variables such as economic growth, employment and prices, has been increasingly recognised in policy formulation and project implementation in recent times. Even at a low income level, where people tend to value output more than the quality of the environment, Sri Lanka has been able to establish a relatively strong legal and institutional framework to protect the environment and manage the natural resource base of the country effectively. The National Environment Act (NEA) was enacted in 1980, and subsequently, in 1981, the Central Environment Authority (CEA) was established for the conservation and management of the environment. Further, a Ministry for Environment was set up in 1990 with a view to co-ordinating environmental activities at the national level and setting national environment policies towards achieving sustainable development. Accordingly, the Ministry prepared a National Environment Action Plan (NEAP) in 1994 and updated it in 1998 to identify the issues and necessary policy intervention relating to land and water, forest and bio-diversity, coastal and marine resources, industrial and urban pollution and the energy and minerals sectors. Currently, serious environmental problems exist in the areas of municipal solid waste disposal, urban air pollution, deforestation and water pollution, which require urgent attention.

In 1998, the Ministry of Forest and Environment carried out several programmes to improve the environment. The Ministry updated the NEAP in consultation with all relevant stakeholders and made a series of recommendations. A number of policy studies have also been undertaken during the year to analyse issues and to make more specific recommendations. In order to review the recommendations made in the NEAP and the policy studies further, eight committees on Environment and Environment Policy Management have been established. These committees, in turn, are expected to report to the Committee on Integrating Environment and Development Policies. The Ministry has also initiated action to study the impact on the environment of globalisation and the other commitments arising from global and regional agreements, conventions and treaties.

A draft national solid waste management strategy has been developed in collaboration with other relevant authorities. The Ministry also continued to assist local authorities to develop solid waste management strategies at the local level. Action is being taken to launch a compost bio-gas production project, with NORAD funding, in the Maharagama Predeshiya Sabha area. The Ministry continued to implement the Basel Convention on the control of trans-boundary movements of hazardous wastes and their disposal and the Montreal Protocol, which is aimed at eliminating the use of ozone depleting substances in industry and trade.

Meanwhile, the CEA processed 32 Environmental Impact Assessments (EIA) and 32 Initial Environment Evaluations (IEE) and approved 11 EIAs and 7 IEEs during the year under review. The CEA has taken steps to amend the NEA with a view to expediting the processing of IEE. In the proposed amendment, this is to be achieved by removing the 30 day period given for public comment on IEE reports. However, it may be more advisable to reduce the time period allocated for public comment, rather than removing it altogether, in order to guarantee transparency in project implementation. Meanwhile, the CEA issued 194 new Environmental Protection Licences (EPL) and renewed 370 EPLs in 1998, compared with 163 and 309, respectively, in 1997. The CEA continued monitoring the discharge of effluents, air emissions and noise by industries, and analysed 354 industrial affluent samples, against 219 during 1997. Further, the CEA monitored the Seethawaka Industrial Estate Development Project, the LPG Import Terminal Project at Kerawalapitiya, the Kukuleganga Hydropower Project and the Alupotha Sanitary Land Filling Project during 1998. The ambient air quality monitoring programme and the monitoring of major water bodies in the country were also continued. Meanwhile, the CEA received 1,221 public complaints on environment related problems. Action has been taken in respect of 461 of those by the CEA. The rest were referred to the respective Local Government Authorities and other relevant organisations. Further, the CEA trained 100 officers of Local Government Authorities in the issue of EPL and selection of sites for industries. A number of programmes were conducted by the CEA in 1998 to enhance environmental awareness, change attitudes and develop skills, particularly among school children.