Chapter 5

ECONOMIC AND SOCIAL OVERHEADS

5.1 Overview

Vital institutional and market reforms were introduced in 2002 to remove supply bottlenecks, raise operational efficiency, create markets for healthy competition, rationalise pricing policies and promote private investment. Reforms specifically covered electricity, petroleum, bunker fuel supply, civil aviation, telecommunications and passenger transportation, as well as regulatory aspects of utility services. These reforms are expected to eliminate prolonged structural rigidities in these sectors and generate significant long-term economic benefits.

Lack of a rational pricing policy has been a major impediment to the development of infrastructure services. In most instances, e.g., supply of electricity, petroleum, passenger transportation, domestic water supply and postal services, tariffs have been below cost recovery prices, although the general public eventually bears the burden, including the costs of inefficiency, through increased government taxes. This system discourages the private sector's entry, forcing the government to shoulder the full burden eventually, inhibiting further investments in the needed infrastructure in the country. A rational, flexible and transparent pricing policy carries benefits to both suppliers and consumers and to the economy as a whole through reduced uncertainty, price decreases in case of reductions in input cost, neutrality on the budget and on the macro economy and through reducing price distortions in the market. In 2002, the government introduced an automatic price adjustment mechanism for petroleum products and a flexible bus fare policy for road passenger transportation. However, competitive market conditions, along with a sound regulatory framework, must exist in order to reap maximum benefits from a flexible pricing policy. Further, a flexible pricing policy needs to be extended to cover other utility services, particularly electricity, water and rail services.

The government also initiated action to create competitive markets for petroleum products, bunker fuel supply and electricity generation and distribution. The local market for petroleum products was opened to competition in 2002 after over 40 years of monopoly held by the Ceylon Petroleum Corporation (CPC) since its establishment in 1961. Further, with a view to creating an efficient market for bunker fuel supply, Lanka Marine Services (pvt.) Ltd. (LMS) was privatised in 2002. A new Electricity Reform Act was passed in Parliament in 2002, providing the legal framework necessary to effect reforms in the electricity sector. Under the reforms, the main activities of the Ceylon Electricity Board (CEB) will be unbundled and a broad based electricity generation and

distribution system will be established. A new communications policy was announced in 2002, facilitating further liberalisation of telecommunication services, including operation of international gateways. The long awaited reforms in the civil aviation sector were realised in 2002 with the transformation of the Department of Civil Aviation to an Authority, with more flexibility for policymaking and implementation. Meanwhile, attempts were made to introduce public sector - private sector partnerships for the operation of road passenger transportation managed by Regional Bus Companies (Cluster Bus Companies). A final decision on the manner of divestiture was to be taken in 2003. Action taken towards the establishment of the Public Utility Services Commission of Sri Lanka (PUSCSL) was an important step forward in building consumer and investor confidence in a market-based, competitive utility services system. It is essential to implement appropriate reforms with respect to the remaining areas, particularly railways and postal services. Meanwhile, government continued to implement educational reforms introduced in 1998 and health reforms introduced in 1997.

While an uneconomic pricing policy restricted the private sector's entry, public investment in infrastructure development fell further in 2002, mainly due to continued budgetary constraints. Public investment in economic infrastructure dropped to 3.3 per cent of GDP, while investment in social infrastructure remained unchanged at 1 per cent of GDP in 2002. This level of investment is barely sufficient to cover wear and tear of the existing stock of infrastructure. Therefore, given

TABLE 5.1
Government Investment in Infrastructure

	Economic Services					
Year	Rs.Mn.	% of GDP	Rs.Mn.	% of GDP	Rs.Mn.	% of GDP
1992	20,444	4.8	6,137	1.4	26,581	6.2
1993	29,600	5.9	6,075	1.2	35,675	7.1
1994	29,304	5.1	7,677	1.3	36,981	6.4
1995	36,106	5.4	9,854	1.5	45,960	6.9
1996	31,409	4.1	10,322	1.3	41,731	5.4
1997	32,481	3.6	11,552	1.3	44,033	4.9
1998	44,677	4.4	15,528	1.5	60,205	5.9
1999	44,940	4.1	17,493	1.6	62,433	5.6
2000	54,650	4.3	16,471	1.3	71,121	5.7
2001	54,906	3.9	14,559	1.0	69,465	4.9
2002(a)	51,678	3.3	15,690	1.0	67,368	4.3

(a) Provisional

Source: Central Bank of Sri Lanka

the existing budgetary constraints of the government and inefficiencies associated with government's operations, it is essential to promote private investment in infrastructure services. The private sector has shown particular interest in investing in telecommunications, power generation, health and education in recent years. In addition to direct involvement, private sector investments could be facilitated through build, own and operate (BOO)/build, own and transfer (BOT) arrangements, service contracts, management contracts, strategic partnerships and direct privatisation. At the same time, as a short-term measure, increasing public investments, especially in areas where the private sector is reluctant to become involved, is advisable.

5.2 Health

Economic development and the status of health are mutually interdependent. The health status of a country is generally recognised as an outcome of development. However, the contribution of a better health status towards economic development does not appear to be recognised by a wide spectrum of policy makers. In this regard, the Commission on Macroeconomics and Health (CMH) established by the World Health Organisation (WHO) in 2000 emphasises that investment in health will yield enormous economic benefits, especially in developing countries. It further indicates that the linkages between health, poverty reduction and long-term economic growth are much stronger than is generally understood. In the meantime, the Millennium Development Goals (MDG) adopted at the Millennium Summit of the United Nations in 2000, called for a dramatic reduction of poverty and a marked improvement in the health of the poor. The financial strategy under MDG envisages an increase in domestic budgetary resources for health of 1 per cent of GNP by 2007 and 2 per cent of GNP by 2015, including a better prioritisation of health services. Increased donor assistance is also expected to achieve these goals.

Taxing the surplus of the plantation sector in the 1940s and 1950s and heavy reliance on taxes on international trade in the 1960s and 1970s enabled the government to have high direct investments in the health sector and heavy involvement in the implementation of many other social welfare programmes. This enabled Sri Lanka to stand more or less on par with developed country health standards in terms of death rates, infant and maternal mortality rates and life expectancy. However, with worsening budgetary developments and competing demands from defence related expenditure, Sri Lanka's investments in the health sector fell below the required levels in the 1990s, despite the emerging health issues in the country. According to Sri Lanka - National Health Accounts (June 2002) compiled by the Institute of Policy Studies (IPS), total national health expenditure, as a proportion of GNP, was 3.5 per cent in 1999. The government's contribution in total health expenditure was 48 per cent, while that of households was 46 per cent. The balance was financed by employers (3 per

cent), private insurance (1 per cent) and non-profit organisations (2 per cent). This reveals that there is an enormous potential for market-based health investment systems through appropriate private investment friendly policy changes. Hence, increased participation by the private sector, promotion of private insurance and social insurance schemes will be helpful in increasing investment in the health sector.

A series of health sector problems, both in the current health status of the country and in the health services, has been identified (Poverty, Transition and Health, WHO, Colombo, March, 2002). Major problems in the current health status have been identified as the high level of malnutrition mainly among children and pregnant women, resurgence of communicable diseases such as malaria and dengue, an increasing rate of STD/ AIDS infection, increase in non-communicable diseases such as heart diseases, diabetes, hypertension and mental illness and changing life styles leading to substance abuse, unhealthy eating patterns, depression and suicide. In the case of health services, the major problems identified are deficiencies in health promotion, weak preventive care services, problems in the curative health services such as lack of trained personnel, weak management and lack of regulation. In addition, problems such as unequal distribution of available resources, lack of appropriate referral systems and congestion in some hospitals, while others are under-utilised, continued to loom over the health system of the country.

In 2002, the Health Ministry continued to implement key recommendations made by the Presidential Task Force (PTF) on Health in 1997. These included the development of at least one hospital in each district, strengthening health services for the disabled, elderly, and mental patients, the development of health promotional programmes, reforms in the organisational structure and the development of human resources. Under the programme to develop at least one hospital in each district, steps were taken to develop 28 hospitals under the allopathic

TABLE 5.2
Public Health Services

Item	2000	2001	2002(a)
Hospitals	-		4 9 9
(practicing Western medicine) (No.)	578	585	605
No. of beds	58,423	58,833	59,781
Central dispensaries (No.)	389	389	385
Total no. of doctors	6,873	7,235	7,459
Total no. of Assistant Medical Practitioners	1,332	1,330	. 1,295
Total no. of Ayurvedic physicians	16,161	16,130	16,455
Total no. of nurses(b)	14,931	15,061	16,139
Total no. of attendants	7,309	7,163	6,955
Number of in-patients ('000)	4,015	n.a.	n.a
No. of out - patients ('000)	43,329	n.a.	n.a.
Total health expenditure (Rs.Mn)	20,696	18,772	24,946
Current expenditure (Rs.Mn)	15,394	14,785	20,233
Capital expenditure (Rs.Mn)	5,302	3,987	4,713

Sources: Ministry of Health, Nutrition and Welfare

Central Bank of Sri Lanka

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

⁽a) Provisional

system and 23 hospitals under the indigenous medicine system. Action was taken to promote and decentralise mental health facilities by establishing seven mental patient rehabilitation centres. To strengthen the situation in estate health, the government has planned to take over 54 estate hospitals; 21 hospitals have already been taken over. Special programmes are being implemented for the aged and the disabled, including the war disabled. The improvement of school health programmes and revisions to legislation relating to the health sector were in progress in 2002.

The total number of government hospitals providing allopathic medicine increased by 20, to 605, mainly due to the acquisition of estate hospitals. The total number of beds in these hospitals increased by about 2 per cent to 59,781. According to the Ministry of Health, there were 175 private medical institutions with 8,300 beds in 2002. In addition, there were 49 Ayurvedic hospitals with 2,567 beds. Accordingly, the number of beds per 1,000 persons stood at 3.6 at end 2002. The total number of qualified doctors in government hospitals increased by 3 per cent to 7,459 in 2002. The Ministry of Health estimates that there are about 800 qualified doctors engaged in private practice or working in private hospitals. This indicates that there were 2,300 persons per doctor in the country at end 2002. The total number of nurses in government hospitals increased by 7 per cent to 16,139 in 2002. The Ministry of Health estimated the number of nurses in private medical institutions to be 6,955. Accordingly, the number of nurses per 100,000 population increased to 121 from 97 in the previous year. Health services continue to suffer from a lack of trained health personnel. There were only 697 medical specialists at end 2000. All government and private hospitals suffered from a critical shortage of trained nurses and paramedical staff. As intake to government training institutions has not kept pace with the growing demand, it would be advisable to allow the private sector to train the necessary manpower, according to set norms and standards.

Disease control campaigns continued to be challenged by an increased incidence of Dengue Haemorrhagic Fever (DHF) in 2002. A total number of 2,641 suspected cases were reported in 2002 in comparison to 3,771 cases in 2001. There were 63 deaths due to DHF in 2002 compared to 47 in 2001. The main causes for the spread of the disease have been poor environment, negligence and problems in diagnosing the illness. There has been significant progress in the malaria control programme in recent years. The number of malaria positive cases dropped by 38 per cent in 2002 following a 68 per cent drop in 2001. The total number of deaths due to malaria dropped to 30 in 2002 from 53 in 2001.

The total government expenditure on health in 2002 was Rs. 24,946 million or 1.6 per cent of GDP. Public expenditure on health care, in relation to GDP remained low in recent years, mainly due to budgetary constraints. This has led to a quantitative and qualitative deterioration in public health services, while paving the way for an expansion of demand for

TABLE 5.3
Performance of Private Hospitals^(a)

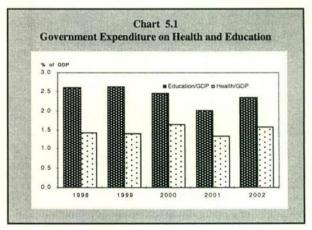
	2001	2002(b)	Change (%)
1 Hospital beds	961	974	1
2 No. of patients			
In-patients	46,897	51,418	10
Out-patients (OPD)	349,436	388,069	11
3 Doctors	711	749	5
Permanent	107	86	-20
Visiting	511	583	14
Part-time	93	80	-14
4 Nursing staff	1,496	1,491	0
Nurses	1,079	1,110	3
Qualified	799	762	-5
Trainees	280	348	24
Attendants	417	381	-9
5 Other staff	1,069	1,117	4
Technical staff	243	277	14
Administative staff	190	211	11
Other (labourers etc.)	636	629	-1

Source: Central Bank of Sri Lanka

- (a) Based on information reported by 27 private hospitals located in the Western Province (12), Southern Province (7), Central Province (3), North Western Province (3), Eastern Province (1) and Uva Province (1).
- (b) Provisional

private sector health care services. Currently, over 50 per cent of curative health care services are provided by the private sector. However, greater involvement of the government in the provision of preventive health care services, with adequate attention to the health needs of vulnerable groups, while encouraging the private sector in the curative health care services is crucial in expanding health care services.

The Ministry of Health, Nutrition and Welfare implemented several health infrastructure development projects in 2002. The construction work on the National Nephrology Dialysis and Transplantation Centre at Maligawatte was in progress in 2002. This Centre will have 111 beds with facilities for the diagnosis of kidney diseases, dialysis and kidney transplant surgery. The total cost of the project has been estimated at Rs.290 million. To upgrade health services at the Ratnapura General Hospital and the Matara Provincial Hospital, action was taken to improve infrastructure and



provide modern equipment with JICA assistance. Steps have also been taken to establish a new National Blood Transfusion Centre to ensure supply of safe and adequate blood and blood products.

5.3 Education

Sri Lanka has achieved an extraordinarily high rate of literacy, of around 90 per cent, for a developing country. However, the high rate of literacy has not been translated to satisfactory learning achievements gearing towards sustainable economic development. 'The Future - Regaining Sri Lanka' Report highlights a number of constraints in the present education system. They relate to quality, institutions, language and the tertiary education system. Regional disparities in service delivery, legislative constraints preventing private sector participation, inadequate teacher deployment especially in remote areas, excessively centralised education management, acute shortage of quality inputs in classrooms, inequitable distribution of educational resources and insufficient attention to the role of education in promoting social harmony in a multicultural society have been identified as quality and institutional constraints. The lack of competence in international languages, especially English, limits participation in the global market place and in the domestic private sector. Serious inadequacy in tertiary education opportunities, as well as skill and competency gaps among university graduates, has also been a serious problem.

General Education

The implementation of primary and secondary education reforms was in progress throughout the country during 2002. All preparatory activities such as curriculum revision, preparation of teacher guides, training of teachers and preparation of textbooks, were completed for Grade One to Grade Five during the year. More attention was paid to monitoring reforms to eliminate operational weaknesses and shortcomings in the implementation of education reforms. Difficulties such as lack of activity rooms, overcrowding children in some classes in popular schools, and a shortage of trained teachers, particularly at the regional level, threatens the effective implementation of reforms. The early attention of authorities is required to eliminate such drawbacks.

According to the school census 2002, there were 10,505 functioning schools, including private schools and pirivena, but excluding international schools. During the year, 65 government schools were closed mainly due to lack of students, a feature seen largely a deterioration in the quality of education delivered by rural schools. The student population in the government schools dropped by 4 per cent to 4,026,233 in 2002. This is partly due to a drop in the school going age population and partly due to the enrolment of more students in private schools. There was one school per 7 sq. km. in 2002. The average number of students per school dropped from 423 in 2001 to 410 ip 2002. The school pupil/teacher ratio improved

marginally to 21 in 2002. At end 2002, there were 80 private schools with 96,917 students and 599 privena with 54,968 students. The number of students in private schools has been increasing in recent years. The number of teachers in government schools increased marginally to 191,812 in 2002, while teachers in private schools increased by 6 per cent to 4,584 during the year.

There are a large number of international schools in the county serving local students. They prepare students for overseas qualifications, which in turn enable the qualifying students to seek admission to foreign universities. These schools are principally disciplined by the market, since the educational attainments maintained by the schools serve as a guide for parents to patronise such schools. The competition among the schools to retain existing students and attract new students has prompted their boards of management to continue to review the operations, teacher qualifications and quality standards in order to remain competitive in the market. It is important to have a market based monitoring system for international schools for purposes of guidance.

Several educational programmes were implemented in 2002 to improve the quality of education and the effectiveness of educational reforms. In order to strengthen school management, action was taken to establish School Boards under a School Based Management (SBM) system. A School Based Assessment (SBA) system was introduced to promote the quality of education through an understanding of student performance by both teachers and parents within the classroom itself. Zonal Monitoring Boards were established to monitor the programmes introduced under the GCE (A/L) reforms within each zone. Further, a new model primary schools project commenced in 2002 with the objective of minimising the acute competition for admission of children to Grade 1 in popular schools. Meanwhile, 381 schools were selected on a Divisional Secretariat basis for development of infrastructure under Navodya schools project.

Teacher training is crucial to improving the quality of education. It has been indicated that by 2002, almost all untrained Sinhala medium teachers had been provided with appropriate training at Teacher Training Colleges. In addition, steps were taken to form Teacher Quality Circles to improve the teaching of subjects through mutual learning processes. Accordingly, teachers were encouraged to meet at Divisional and Zonal levels in subject groups, and discuss their problems and share experience.

Government sponsored student welfare programmes continued to be implemented in 2002. Material for school uniforms was provided to around 4 million students at a cost of Rs. 999 million, while the free distribution of school textbooks cost the government Rs. 950 million. In addition, various scholarship programmes and nutritional programmes were also implemented for the benefit of talented and underprivileged students. Past experience reveals that such universal free facilities act contrary to the development of a

sustainable educational system, since such policies lead to wastage on the one hand and corruption in the bureaucracy that manages the system, on the other. Hence, it is of utmost importance to direct such free facilities only to deserving students by adopting a proper targetting strategy.

Several foreign funded educational projects were in progress during 2002. One was the Teacher Education and Teacher Deployment Project (TETD) funded by IDA. The main objectives of the project are to upgrade teacher education, strengthening staff and management of schools and upgrade teacher training institutions. The Second General Education Project (GEP), which is also funded by IDA and aims at curriculum development, development of libraries and

TABLE 5.4

General and University Education

Item	2000	2001	2002(a)
General education			
1. Total schools	10,615	10,552	10,505
Government schools(b)	9,976	9,891	9,826
o/w National schools	317	320	323
Other schools	639	661	679
Private	78	78	.80
Pirivena	561	583	599
2. Pupils	4,340,412	4,337,258	4,178,118
Government schools	4,193,908	4,187,146	4,026,233
Other schools	146,504	150,112	151,885
Private	95,383	97,206	96,917
Pirivena	51,121	52,906	54,968
3. New admissions	332,892	330,316	325,667
4. Teachers	194,773	198,397	201,235
Government teachers	186,097	189,485	191,812(c)
Others	8,676	8,912	9,423
5. Pupil/Teacher ratio	5,2. 5	-,	30,000,000
(government schools)	22	22	21
6. Total expenditure on education			
(Rs. Mn) (d)	30,929	28,283	37,209
Current	23,794	23,448	31,161
Capital	7,135	4,835	6,048
		.,	
University education			
1. Universities	13	13	13
2. Students (e)	48,296	48,212	48,666
3. Lecturers (f)	3,241	3,268	3,390
Number graduating	9,374	8,896	n.a.
Arts and Oriental studies	3,656	3,256	n.a.
Commerce & Management st	•	2,367	n.a.
Law	173	182	n.a.
Science	1,264	1.052	n.a.
Engineering	548	653	n.a.
Medicine	904	801	n.a.
Dental surgery	77	71	n.a.
Agriculture	249	365	n.a.
Veterinary science	0	70	n.a.
Architecture	37)	•	
Quantity Surveying	18	79	n.a.
5. New admissions for first degr		11,962	12,144

Sources: Ministry of Hurnan Resource Development, Education and Culural Affairs University Grants Commission

- (a) Provisional
- Central Bank of Sri Lanka
- (b) Excluding non-functioning schools
 (c) This includes volunteer teachers and teachers paid by other than government
- (d) Includes government expenditure on higher education
- (e) Excluding the Open University of Sri Lanka
- (f) At the beginning of the year

improving reading habits, rationalisation of schools and supply of quality inputs, was also in progress in 2002 and nearing completion. The Secondary Education Modernisation (SEM) Project, which commenced in 2000 to improve the quality of secondary school education, was also in progress. In addition, the Primary Maths project and the Primary English Language Project funded by Department of Foreign International Development (DFID), United Kingdom, the Basic Education Sector Programme funded by Germany and the Junior School Improvement Project, funded by JICA-Japan, were also in progress in 2002.

In consideration of the significant economic and social opportunities available in the Information and Communications Technology (ICT) sector, the government has given foremost priority to training students in this sector through the provision of institutional support. Students need to be increasingly more computer literate to face economic and social challenges in the future and a national policy for information technology in school education was introduced in 2002. Accordingly, several steps were taken to improve computer education at school level. At end 2002, there were 220 computer-learning centres and 700 multimedia rooms established in identified schools, but this still covered less than 10 per cent of all schools. Further, a total of 72 computer resource centres were functioning islandwide. Action was also taken to introduce Information Technology (IT) as a common subject for Grade 12 students, while establishing 8 provincial information technology centres. In order to improve the teaching of IT subjects, 6,400 teachers from selected schools were trained in 2002.

Several steps were taken to reduce the shortage of teachers in difficult areas. It has been decided to give more opportunities to applicants from remote areas for admission to National Colleges of Education. It has also been decided to establish a systematic exchange of teachers among provinces and to give incentives to teachers serving in difficult areas. In any case, a consistent and non-discriminatory national policy on teacher transfers is needed for the smooth functioning of schools.

Total government expenditure on education, including higher education was Rs. 37,209 million in 2002, a 32 per cent increase over the previous year. Total expenditure as a percentage of GDP was 2.4 per cent in comparison to 2.0 per cent in 2001. According to the 1996/97 Consumers' Finance and Socio-economic Survey, total private expenditure on education was Rs. 10,552 million, at 1996/97 prices.

Higher Education

The total number of national universities, including the Open University, stood at 13 at end 2002. The number of students enrolled in various courses in these universities increased marginally to 48,666 in 2002. New admissions to universities, except the Open University, expanded by 2 per cent to 12,144 in 2002. However, only 13 per cent of the total number of students who obtained the minimum requirements necessary to gain admission to a university was able to secure a place in a

university in 2002. A total of 208,503 students sat for the GCE (A/L) examination in 2002 and 44 per cent qualified for admission to university.

University education reforms covering curriculum development, career guidance, quality assurance and accreditation, corporate planning and legislative requirements were in progress in 2002. More attention was paid to career guidance related activities, self-development activities, increase of access to higher education and promotion of postgraduate training and research.

Several private and public institutions, which have been granted degree-awarding status, enrolled students for bachelors/diploma and postgraduate degree courses. The Sri Lanka Institute of Information Technology enrolled 1,065 students to follow degree/diploma and postgraduate courses. New admissions to the Open University were 9,523, a 9 per cent increase over 2001. The total number of students enrolled in various courses in the Open University was 20,995 in 2002. Over 800 students in various disciplines such as Education, Management, Law, Social Sciences, Industrial Engineering, Construction Management, Engineering Technology, Natural Science and Nursing graduated from the Open University in 2002.

Insufficient opportunities for higher education create serious economic, social and political problems and could also lead to social unrest among youth in the country. The relatively high enrolment in secondary education exerts intense pressure for the very limited places available in universities, which are almost entirely controlled by the government. In the absence of sufficient funds with the State to expand tertiary education opportunities in the country, the emergence of the private sector as a provider of higher education opportunities has now become inevitable. What is needed is accreditation, monitoring and establishment of a regulatory framework. Due to lack of opportunities within the country, a large number of students enrol for various courses overseas at very high cost. In 2002, outward remittances of foreign exchange for educational purposes amounted to around US dollars 16 million.

A global development in university education since the late 1990s has been the distance delivery of undergraduate courses in Economics, Management, Accountancy and Finance through the use of advanced communication and information technology. Many reputed universities in Western countries, especially USA and UK, have resorted to this option since it is cost efficient, convenient and capable of having a wide outreach across the globe. In addition, universities in UK and Australia have commenced accreditation of local institutions in developing and middle income countries as a way to expand into outside markets. Hence, the conventional system of educating students by admitting them to a university is no longer the only method of providing higher education to those aspiring to obtain such education. This option has to be seriously explored by Sri Lanka, which is facing a serious

deficiency in the opportunities for higher education for all those who are eligible to receive a higher education.

With increasing global demand for information technology (IT) experts and good prospects for employment in this sector, the demand for IT education in the country is expanding rapidly. Several universities have commenced computer science or information technology courses leading to diploma, bachelor and post-graduate degrees. The University of Moratuwa commenced several programmes in IT, while the University of Colombo established the School of Computing, renaming the existing Institute of Computer Technology, in 2002. According to the University Grants Commission (UGC), a total of 106 students were enrolled to follow IT or computer science degrees in universities, excluding the Open University, in 2002. A sum of Rs. 200 million was allocated for the development of IT education in universities. With the development of IT education and communications infrastructure, e-learning or Internet-based learning systems and distance learning systems will grow as a mode of delivery of knowledge.

Technical Education and Vocational Training (TEVT)

TEVT provides job oriented training and skills development. As in general and university education, broad based reforms were also introduced in the TEVT sector in 1997. Several projects were implemented to improve the quality and relevance of training, in both public and private sector training institutions. Action was also taken to obtain technical assistance from international donor agencies to set up an Institute of Technical Education with the objective of providing students with university level qualifications.

The Tertiary and Vocational Education Commission (TVEC) is the apex body for setting policy and regulating the TEVT sector. A number of public sector institutions such as the Department of Technical Education and Training (DTET), the Sri Lanka Institute of Advanced Technical Education (SLIATE), the Vocational Training Authority of Sri Lanka (VTA), and the National Institute of Technical Education (NITE) continued programmes of vocational training at various levels and in different areas in 2002.

DTET was the major provider of technical education and vocational training in the public sector and conducted training programmes in 36 technical colleges located through out the country. The total number of students enrolled for courses conducted by DTET was 17,622 in 2002. SLIATE conducted diploma level courses in Engineering, Information Technology, Accounting, Agriculture, Commerce and Business Studies in 11 colleges and the total enrolment was 5,094 students in 2002. VTA conducted several training programmes in rural areas through 230 training centres located in different parts of the country, for 25,290 students, during the year. NITE involved in teacher training and curriculum development and conducted training programmes

and seminars for 1,306 teachers and instructors in 2002. Meanwhile, the National Apprenticeship and Industrial Training Authority (NAITA) offered 180 courses for 16,652 students through institute based apprenticeships at technician and craftsman level.

5.4 Communications Services

Telecommunications

In terms of subscriber network, modernisation, private sector participation and institutional reforms, the telecommunications sector has demonstrated major changes during the last decade. Fixed line telephone connections have grown more than sixfold since 1992, in addition to tremendous growth in cellular services. A range of value added services have also been introduced with the participation of the private sector. With the new communications policy and more a liberalised

environment in place, the telecommunications sector is expected to improve in the coming years.

The entire telecommunications sector is now open to competition, with the end, in August 2002, of the monopoly enjoyed by Sri Lanka Telecom Ltd. (SLT) for international voice services and wire line operations. Concurrently, the Telecommunications Regulatory Commission of Sri Lanka (TRCSL) brought forward a new telecommunications policy to increase competition and strengthen the regulations. Fixed line telephone services are presently being provided only by SLT, while two private sector operators are licensed to provide fixed wireless telephone services. Meanwhile, there are four private sector companies licensed to provide cellular mobile telephone services. Action has already been taken to license additional external gateway operators. At the same time, with the objective of establishing a fair tariff system, a decision was

TABLE 5.5
Telecommunications and Postal Services

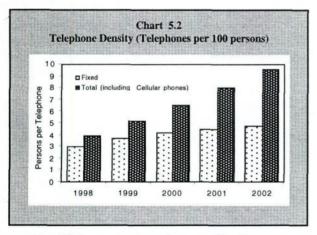
	ltem	2000	2001	0000/-1	Percentage Change		
	nem	2000	2001	2002(a)	2001	2002(a)	
1 Te	lecommunications services						
1.1	Fixed access services						
	SLT Telephone lines in service (No.)	653,144	708,200	768,620	8	9	
	New telephone connections given by SLT (No.)	90,647	77,535	69,258	-14	-11	
	Applicants on waiting list for SLT telephones (No.)	248,486	257,707	306,268	4	19	
	Wireless local loop telephones					1000	
	Operators (No.)	2	2	2	0	0	
	Subscribers (No.)	114,267	121,082	114,488	6	-5	
	Telephone density (Telephones per 100 persons)	4.2	4.4	47	5	7	
1.2							
	Cellular phones			10.00.49998999			
	Operators (No.)	4	4	4	0	0	
	Subscribers (No.)	430,202	667,662	907,422	55	36	
	Public pay phones					100000	
	Operators (No.)	6	6	6.	0	0	
	Telephone booths (No.)	8,222	7,281	6,681	-11	-8	
	Radio paging services						
	Operators (No.)	4	4	4	0	0	
	Subscribers (No.)	7,009	6,535	5,516	-7	-16	
	Internet & e-mail						
	Operators (No.)	21	27		29	7	
	Subscribers (No.)	40,497	61,532	70,082	52	14	
2 Po	stal service						
	Delivery areas (No)	6,729	6,729	6,729	0	0	
	Post offices (No)	4,488	4,556	4,616	2	. 1	
	Public	4,049	4,042	4,046	0	a	
	Main Post offices	597	602	614	1	2	
	Sub Post offices	3,452	3,440	, 3,432	0	0	
	Private	439	514	570	17	- 11	
	Agency Post offices	316	360	379	14	- 5	
	Rural agency	113	144	156	27	8	
_	Estate agency	10	10	35	0	250	
	ea served by a post office (Sq.Km)	14.6	14.4	14.2	-1	-:1	
	pulation served by a post office	4,243	4,103	4,102	-3	0	
Le	tters per inhabitant	25	26	25	4	-4	

a) Provisional

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

taken to move for a Calling Party Pays (CPP) system from July 2003. With expanding competition, the quality of the telecommunications network is improving. The call completion rate has improved and the fault rate has declined.

The growth of fixed access telephone services decelerated in recent years, as major expansion projects have been completed. The total number of subscribers to wireless local loop telephone services decreased during the last couple of years, with some consumers shifting to other telecommunications services. In contrast, the cellular mobile telecommunications service grew rapidly. The fixed access telephone network increased by 7 per cent, while the mobile telephone network expanded by 36 per cent in 2002. Improvements in cellular telephone technology, aggressive competition, affordable initial costs, quick supply and expansion of coverage have been the main reasons for the significant growth in this sector. As a result, telephone density (telephones per 100 persons), including cellular phones, increased to 9.5 in 2002 from 8 in 2001. The penetration of mobile telephones in relation to fixed access telephones increased to 103 in 2002 from 81 in 2001. Internet/e-mail services are also expanding rapidly. Subscribers to Internet and e-mail services, provided by 29 operators, increased by 14 per cent in 2002. The number of public pay phone booths and the number of subscribers to radio paging services further declined in 2002.



The SLT customer base increased by 9 per cent to 758,620 after adding 69,258 subscribers to the network. The demand for fixed line telephones provided by SLT grew faster outside the Colombo Metropolitan area, reducing the disparity of distribution. The number of SLT telephone lines in service rose by 7 per cent in the Colombo Metropolitan area while in other areas it grew by 9 per cent. Of the total number of subscribers to SLT telephones, 45 per cent were in the Colombo Metropolitan region at end 2002. The national telephone density for fixed access telephones was 4.7 at end 2002.

SLT implemented several network development projects, expanding the transmission network, switching capacity and

outside plant cable networks in 2002. Four optical fibre rings had been commissioned by end 2002 covering most parts of the country. SLT has taken steps to introduce new technology and value added services such as ADSL (Asymmetric Digital Subscriber Line) and new IDD products like 'SLT Passport' and 'Globelink'. IP-VPN (Internet Protocols Virtual Private Network), IDC (Internet Data Centre) and IX (Internet Exchanges) are to be introduced shortly. Meanwhile, the overseas telecommunications services expanded further in 2002. The total number of IDD subscribers increased by 27 per cent. Outgoing traffic remained almost at the same level, while incoming traffic increased by 19 per cent. SLT raised the number of international circuits by 82 per cent to 5,858,in 2002.

SLT became a listed company on the Colombo Stock Exchange (CSE) with the issue of 12 per cent of its share capital (216.6 million shares) at an initial offer for sale concluded in November 2002. This was the largest offer for sale so far issued at the CSE.

SLT continued its tariff re-balancing process in 2002, reducing the relatively high cost to large users and international callers. Accordingly, domestic call charges were raised by an average rate of 15 per cent, while IDD call charges were reduced by about 8 per cent from May 2002.

Postal Services

As the postal service carries out important social and economic functions, a reliable and efficient postal system is an important component in modern infrastructure. Postal infrastructure represents one of the largest networks of service delivery systems in the country, but remains largely under-utilised. Fast growing information technology, rapidly changing demand for communications services, adoption of institutional reforms elsewhere in the economy and more importantly, liberalisation of markets, create a strong demand for the transformation of postal services. Post offices need to diversify their products and offer innovative services to the public for the long-term sustainability of the service. The postal service can offer newer services such as financial services, electronic money transfers, insurance and pension related services, utility bill payments, egovernment services, e-commerce related activities such as information analysis, data banking etc. In this respect, it is essential to establish broad based institutional reforms and service modernisation.

The network of post offices, with 4,046 government owned post offices and 570 private post offices, expanded slightly in 2002. The network includes postal shops, which were first introduced in 1999 as model post offices. The average area served by a post office dropped marginally to 14.2 sq. km. in 2002, while the population served by a post office also dropped slightly to 4,102. Handling mail articles, of both inland and foreign, increased by 2 per cent in 2002. The average number of letters per inhabitant handled by the Department of Posts (DOP) decreased slightly to 25 during 2002.

Value added services provide by post offices further expanded in 2002. There were 14 post offices with e-mail facilities, and 40 with both e-mail and Internet facilities at end 2002. The tele-mail service was extended to all sub-post offices, which provide telephone and telegraph facilities. The international Express Mail Service (EMS) and local Speed Post Service continued to expand.

DOP continued to incur losses. The total revenue of DOP increased by 16 per cent to Rs.2,125 million mainly due to an increase in postal charges in 2002. The total operating expenditure of DOP grew by 9 per cent to Rs.2,819 million. Consequently, its operating loss, covered by the government, was at Rs.694 million. This clearly calls for expenditure rationalisation efforts and a revenue enhancing strategy.

5.5 Energy

In 2002, reforms were initiated in the commercial energy sector to address inefficiency, supply shortages, irrational pricing policies and to create a competitive market for energy. A new Electricity Reforms Act was promulgated in 2002 to restructure the power sector of the country with the objective of ensuring a stable and reliable power supply in the future. As part of the reforms, the main activities of the CEB will be unbundled, paving the way for a greater level of private sector participation, particularly in the areas of power generation and distribution. An Energy Supply Committee (ESC) was set up during the early part of 2002 with a twoyear mandate to find immediate solutions to the existing problems of power shortages. However, firm action is yet to be taken to implement the planned power projects to provide electricity at an affordable and competitive price in the medium to long term. Past experience clearly shows that the economic and social costs of power shortages are extremely high and that high priced electricity would adversely affect energy intensive industries and the competitiveness of exports of the country.

Concerted efforts were made to re-structure the petroleum sector and to open it to competition. The government reached an agreement with the Indian Oil Corporation (IOC), under which the oil tank farm at Trincomalee will be leased out to IOC, which will be allowed to retail petroleum products in the local market. The government also intends to license a third player in the domestic petroleum market. The introduction of a flexible pricing policy for petroleum products, starting from January 2002, has been a stimulating development. It is important that the flexible pricing policy for petroleum products be implemented without ad hoc interference to ensure the credibility of the formula based pricing policy. The long awaited liberalisation of bunker fuel supply was also concluded and Lanka Marine Services Ltd (LMS) was privatised in August 2002.

Electricity

The total installed capacity was 1,930 MW at end 2002, increasing marginally by 29 MW. This increase came entirely from the private sector with the commissioning of a 20 MW thermal power plant at Horana by Ace Power Ltd and some small hydropower plants with a capacity of 10 MW. The reliance of the power system on hydropower declined marginally to 60 per cent from 61 per cent at end 2001. Power cuts that were imposed in July 2001 continued till May 2002. Power cuts ended in May 2002 after the acquisition of 290 MW short-term emergency power plants from the private sector. A slight improvement in the availability of water in the reservoirs also helped to discontinue power cuts. Water storage in the reservoirs remained critically low during the first half of 2002. Water storage, at 30 per cent of capacity at the beginning of the year, dropped to a mere 12 per centl by April, but improved to 31 per cent by May 2002 and further to 62 per cent by end 2002. As under normal circumstances the demand for power rises by 8 - 10 per cent per annum, it is necessary to expand installed capacity by at least 100 MW each year to meet the growing demand. If a higher rate of economic growth, exceeding 5 - 6 per cent, is to be achieved, electricity capacity needs to be expanded at a faster rate. It is essential to pursue a carefully drawn power expansion plan.

Total electricity generation increased by 5 per cent to 6,951 GWh in 2002, against a 3 per cent drop in the preceding year. The private sector largely contributed to this increase. Power generation from private thermal and small hydropower plants increased by 10 per cent to 1,351 GWh, whereas power generation from CEB owned power plants dropped by 8 per cent to 4,546 GWh. As a result, the private sector share including emergency power and self generation, in total power generation increased to 35 per cent from 25 per cent a year ago. Hydropower generation by CEB, at 2,589 GWh in 2002, was the lowest since 1992. The dip in hydropower generation, resulting from poor rainfall in catchment areas, led CEB to resort to expensive thermal power and emergency hired power to meet the demand. CEB's thermal power generation increased by 3 per cent, while power generation from hired power plants increased by 168 per cent to 913 GWh., causing a heavy financial drain on CEB as the average power tariff was below the average thermal purchasing price. Although the power situation improved during the second half of the year and hired power plants were used sparingly, CEB still had to pay a capacity charge on hired power plants. Meanwhile, electricity generation under CEB's self-generation programme amounted to 141 GWh. The share of thermal power in total power generation increased to 61 per cent from 53 per cent in 2001.

Despite the substantial increase in the tariff from April 2002, electricity sales by the CEB increased by 5 per cent to 5,502 GWh over sales in 2001. The suppressed demand due to power cuts has been estimated at 289 GWh in 2001 and 525 GWh in 2002. The consumer network expanded by 5 per

TABLE 5.6
Performance of the Power Sector

Item	Unit	2000	2001	2002(a)	Percent	age Change
					2001	2002(a)
Available capacity	MW	1,837	1,999	2,230	9	12
Installed capacity	**	1,779	1,901	1,930	7	2
CEB - Hydro	,,	1,137	1,137	1,137	0	0
Thermal	,,	453	563	563	24	0
Wind	,,	3	3	3	0	0
Private - Hydro	,,	12	24		100	42
Thermal	**	174	174	193	0	. 11
Hired private power	.,	58	98	300	69	206
Units generated	GWh	6,844	6,625	6.951	-3	5
CEB - Hydro	,,	3,154	3,045	2,589	-3	-15
Thermal	11	2,205	1,896	1,953	-14	3
Wind	**	3	3	4	0	33
Private - Hydro	,,	43	65	103	51	58
Thermal	,,	917	1,170	1,248	28	7
Hired private power	,, ,,	364	341	913	<u>-6</u>	168
Self generation	**	158	105	141	-34	34
Total sales by CEB		5,259	5,238	5.502	0	5
Domestic and religious	15	1,732	1,798	1.821	4	1
Industrial (b)	11	1,755	1,719	1,866	-2	9
Commercial	,,	895	859	921	-4	7
Bulk sales to LECO	"	825	802	811	-3	0.44406.
Street lighting	,,	52	60	83	15	38
Composition of LECO sales	,,	744	743	763	0	3
Domestic and religious	19	366	366	370	0	1
Industrial (b)	.,	189	188	194	-1	3
Commercial	1)	142	141	149	-1	6
Street lighting	1)	17	19	20	12	5
Other	11	30	29	. 30	-3	3
System loss						
CEB	%	21.3	20.9	19.5	-2	-7
LECO	19	8.5	6.7	8.9	-21	39
Overall	,,	22.4	21.8	22.3	-3	2
lumber of Consumers (c)	No.	2,817,770	3,028,506	3,185,588	7	5
Domestic and religious	17	2,493,183	2,690,735	2,821,272	8	5
Industrial	1)	31,231	32,473	33,857	4	4
Commercial	,,	293,356	305,298	330,459	4	8

⁽a) Provisional

Lanka Electriciy Company (Pvt.) Ltd.

Sources: Cevion Electricity Board

cent in 2002, after a 7 per cent expansion in 2001. Per capita consumption of electricity in the domestic sector decreased marginally to 65 GWh per month. Electricity consumption in the commercial and industrial sectors expanded by 9 per cent and 7 per cent, respectively. The systems loss, defined as the difference between power generation and sales, continued to remain high, although declining marginally to 19.5 per cent in 2002.

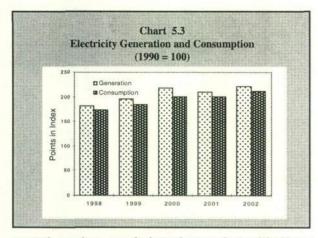
Electricity generation costs increased considerably in 2002. The main reasons were increased reliance on thermal power, particularly on hired power, and high fuel prices. The fuel cost of CEB's thermal power generation (for diesel, furnace oil and naphtha) amounted to Rs.9,816 million in 2002, implying an average fuel cost of Rs.5.00 per unit of electricity. The average cost of electricity generated using hired power plants was Rs.10.75 per unit, while the average purchase price of private power was Rs.7.32 per unit in 2002. The overall cost

of electricity sold by the CEB was Rs.8.85 per unit compared to the average tariff of Rs.7.21 per unit.

Total revenue of CEB increased by 41 per cent to Rs.40,789 million in 2002, mainly due to a 37 per cent increase in the average tariff from April and a 4 per cent increase in sales. However, as operating expenditure increased, by 26 per cent to Rs.48,250 million, mainly due to the high cost of emergency thermal power plants, CEB reported an operating loss of Rs.7,461 million in 2002 against an operating loss of Rs.8,993 million in 2001. In order to finance continuing losses, CEB borrowing from banks amounted to Rs.15 billion (gross) by end 2002, raising its debt burden. This situation emphasises the fact that development of low cost power sources such as coal power is absolutely necessary to guarantee a reliable power supply to consumers at a reasonable tariff, as well as to restore the financial viability of the power sector in the long run. In this respect, postponement of two low cost power

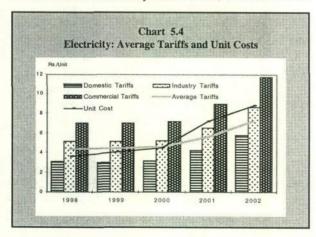
⁽b) Excluding self generation

⁽c) Inclusive of LECO consumers



generation projects, namely the coal power plant and the Upper Kotmale hydropower plant, for non-economic reasons, would be a strain on the power sector and would lead to power shortages in the future, if alternative power plants are not developed without further delay.

The construction work on several power projects including power transmission and distribution projects by both CEB and the private sector were in progress in 2002. The construction work on the Kukule Ganga hydropower plant with a capacity of 70 MW is nearing completion and the plant is expected to be commissioned towards the end of 2003. CEB implemented several rural electrification projects in 2002. The Rural Electrification Project III (RE project III) funded by ADB was completed in 2002. The total expenditure was Rs.3,200 million. An extension to RE III is in progress at a cost of Rs. 640 million. RE Project IV funded by SIDA (Rs.2,360 million), RE Project VI funded by ADB (Rs.5,200 million) and RE Project VII funded by China (Rs.2,700 million) are to commence in 2003. RE V is in progress with funds made available by Kuwait and the total estimated cost is Rs. 992 million. Once these projects are completed, the proportion of houses with electricity would increase significantly from 62 per cent at present. CEB also implemented several transmission and distribution projects in 2002. Meanwhile, the 163 MW combined cycle power plant constructed by AES (Pvt) Ltd. was to be commissioned in early 2003. Further, CEB has initiated

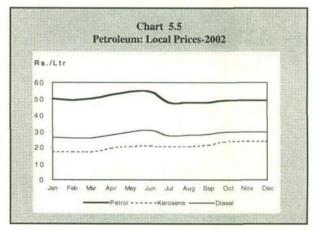


the establishment of a 20 MW wind power plant, on a BOO basis at Hambantota or Puttalam.

Petroleum

The introduction of the long awaited automatic price adjustment mechanism for determining local prices of petroleum products from January 2002 and the government's decision to open the domestic petroleum sector to competition were the two significant developments in the petroleum sector in 2002. In the wake of continuing increases in international oil prices from April 2002, the continuation of the flexible pricing policy was a challenging task as increasing oil prices exerted severe pressure on the domestic prices of goods and services. However, with some side steps and certain adjustments to the formula, the pricing policy was implemented in 2002. With the formula based pricing policy in place, CPC was able to prevent further accumulation of losses, but the planned reduction in CPC's debt stock could not be achieved, as the debt recovery component was withdrawn from the pricing formula from July 2002.

The government has taken a policy decision to restructure



CPC by unbundling its operations and inviting private sector participation in the areas of storage, distribution and retailing in a competitive environment. The government has already invited the Indian Oil Corporation (IOC) to enter the market. An interim agreement was signed between the government, CPC and Lanka Indian Oil Corporation (LIOC) in December 2002, enabling LIOC to take over 100 filling stations and commence retailing petroleum products. Another 100 filling stations belonging to CPC have been identified and reserved for a third player who is expected to enter the market shortly. A joint venture company is to be set up to own and operate petroleum common user facilities such as storage and distribution facilities. Discussions were also in progress to lease out the oil tank farm at Trincomalee to LIOC. A new Petroleum Sector Act is being drafted to support liberalisation and bring the industry under the Public Utilities Commission of Sri Lanka. With these developments, it is expected that a competitive market for petroleum products would emerge shortly, while establishing the energy security of the country. CPC introduced a Voluntary Retirement Scheme (VRS) to its employees to reduce its redundant workforce and to make CPC's operations more efficient to face emerging competition in the domestic petroleum market.

The demand for major petroleum products grew at a moderate rate of 4 per cent in 2002 in comparison to a marginal contraction in the previous year. Petroleum consumption had been growing generally at an average rate of about 12 per cent in recent years. Slow growth in petroleum consumption in 2002 was mainly due to slow growth in economic activities. Diesel consumption, which represents about 51 per cent of total petroleum consumption, increased by 5 per cent in 2002 against a 2 per cent drop in 2001. Increased demand for thermal power generation was mainly responsible for this expansion. Petrol consumption increased by 14 per cent, while furnace oil

consumption declined by 4 per cent. CPC imported 2.3 million MT of crude oil and 1.3 million MT of refined products to meet the demand. The source countries for crude oil imports were Iran (51 per cent), Malaysia (21 per cent), Saudi Arabia (20 per cent) and UAE (8 per cent). Total petroleum product imports by CPC and by the private sector amounted to 29 million barrels in 2002, an increase of 8 per cent over 2001.

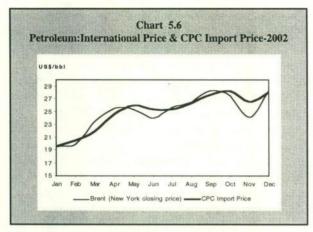
The average import price of crude oil (c&f), in US dollar terms, increased marginally to US dollar 25.13 per barrel in 2002. The average import price of US dollars 23 per barrel during the first half of the year increased to US dollars 27 per barrel during the second half. The increased threat of military action against Iraq and political turmoil in Venezuela, which led to cessation of oil exports from that country from December, were largely responsible for higher oil prices, particularly during the second half of the year. Total

TABLE 5.7
Performance of the Petroleum Sector

Quantity imported Crude oil Refined products L.P. gas Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Value of exports Petrol (90 Octane)	Unit Mt '000 " " Rs. mn. US\$ mn. Rs. mn. US\$ mn. US\$ mn. US\$ mn.	2,330 1,266 134 39,343 519 24,452 323	1,955 1,419 126 32,004 358 27,284	2,290 1,344 137. 40,404	-16 12 -6 -19	2002(a) 17 -5 9
Crude oil Refined products L.P. gas Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales		1,266 134 39,343 519 24,452 323	1,419 126 32,004 358	1,344 137 40,404	12 -6 -19	-5
Refined products L.P. gas Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales		1,266 134 39,343 519 24,452 323	1,419 126 32,004 358	1,344 137 40,404	12 -6 -19	-5
L.P. gas Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales		134 39,343 519 24,452 323	126 32,004 358	137. 40:404	-6 -19	
Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales		39,343 519 24,452 323	32,004 358	40,404	-19	9
Value of imports (c&f) Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales	Rs. mn. US\$ mn. Rs. mn. US\$ mn. Rs. mn.	519 24,452 323	358	9. 30 mar 20 mar		
Crude oil Refined products L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales	US\$ mn. Rs. mn. US\$ mn. Rs. mn.	519 24,452 323	358	9. 30 mar 20 mar		
L.P. gas Average price of crude oil (c&l) Quantity of exports Value of exports Local sales	Rs. mn. US\$ mn. Rs. mn.	24,452 323		422		. 26
L.P. gas Average price of crude oil (c&f) Quantity of exports Value of exports Local sales	US\$ mn. Rs. mn.	323	27,284		-31	18
L.P. gas Average price of crude oil (c&l) Quantity of exports Value of exports Local sales	Rs. mn.			27,781	12	2
Average price of crude oil (c&f) Quantity of exports Value of exports Local sales			305	290	-6	-5
Average price of crude oil (c&l) Quantity of exports Value of exports Local sales	US\$ mn.	4,172	4,295	3.773	3	-12
Quantity of exports Value of exports Local sales	· · · · · ·	55	48	39	-13	-19
Quantity of exports Value of exports Local sales	Rs./barrel	2,181	2,207	2,394	1	8
Value of exports Local sales	US \$/barrel	28.77	24.47	25.19	-15	3
Value of exports Local sales	mt '000	20.77	148	154	-35	4
Local sales	Rs. mn.	5.346	3,561	3,981	-33 -33	12
	US\$ mn.	5,3 46 71	3,301	42	-33 -44	. 4
	·					2000
Petrol (90 Octane)	Mt '000	3,303	3,305	3,423	0	4
	10	220	244	278	11	14
Petrol (95 Octane)	11	4	5	9	25	80
Auto diesel	11	1,715	1,675	1,752	-2	. 5
Super diesel	0	47	49	47	4	-4
Kerosene	17	229	228	229	0	0
Furnace oil		785	811	780	3	-4
Avtur		157	138	114	-12	+17
Naphtha		•	14	57	-	307
L.P. gas	**	146	141	157	-3	11
Local Price (at period end)						
Petrol (90 Octane)	Rs./litre	50.00	50.00	49.00	0	-2
Petrol (95 Octane)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	53.00	53.00	52.00	0	-2
Auto diesel	**	24.50	26.50	30.00	8	13
Super diesel	**	29.80	31.80	35.30	7	- 11
Kerosene		18.40	17.40	24.00	-5	38
Furnace oil						
500 Seconds	Rs./litre	15.90	17.80	22.90	12	29
600 Seconds		15.10	17.00	21.90	13	29
1.000 Seconds	"	14.60	16.50	21.20	13	.28
1,500 Seconds	**	14.00	15.80	20.70	13	31
3,800 Seconds		12.40	14.10	18.90	14	34
L.P. Gas	**	,			• •	0.00
Shell gas	De fire	40.72	40.72			
Laugis gas	Rs./kg.		444.7.2	47.84	0	17

(a) Provisional

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



expenditure on petroleum imports in 2002 increased by 8 per cent to US dollar 789 million due to increases in both import volume and prices.

With the automatic price adjustment mechanism for petroleum products in place, the financial situation of the CPC improved substantially in 2002. CPC made a profit of Rs.5 billion, including debt recovery charges collected during the first half of 2002. However, CPC was unable to reduce its accumulated losses to the expected level, because the debt recovery component was removed from the pricing formula from July 2002, following a government decision. As a result, CPC's bank borrowings stood at Rs 16.2 billion at end 2002. Had the debt recovery component of the pricing formula not been removed, CPC would have been able to reduce its debt stock at least by another Rs.2.5 billion. Improvements in treasury operations at the CPC and permitting it access to private banks were also helpful in improving the financial situation of the CPC. The automatic price adjustment mechanism for petroleum products needs to be continued without any ad hoc changes, in order to maintain the commercial viability of CPC, mitigate the pressures on the banking system via high borrowing and build up the credibility of the automatic pricing mechanism.

LP Gas

A competitive market is emerging in the local LP gas market. There are already two distributors, and a third is expected to enter the market shortly. In 2002, following the trend in oil prices, LP gas prices also steadily increased in the world market from May. The LP gas price at US dollars 205 per MT in January 2002, dropped to US dollars 185 per MT by April. However, it increased steadily thereafter to US dollars 370 per MT by December 2002. In line with world market prices, domestic retail prices were also increased by both suppliers, Shell Gas Lanka Ltd (SGLL) and Laugfs Lanka Gas Ltd (LLGL). SGLL raised its price by 39 per cent to Rs 53.20 per kg (to Rs 665 per 12.5 kg cylinder) during 2002. LLGL also raised its price by 63 per cent and remained on par with SGLL price. However, the auto gas price remained unchanged during the year, as it was already priced relatively high in the market.

Despite price increases, LP gas sales increased by 11 per cent to 157,458 MT in 2002. LP gas sales to the domestic sector expanded by 15 per cent to 121,421 MT, while in the industrial sector it increased by 2 per cent to 28,481 MT. Meanwhile, auto gas sales decreased by 10 per cent to 7,626 MT.

5.6 Transportation

Roads

Concerted efforts were made to embark on the proposed highway projects in 2002 with foreign financial assistance. Some projects were further delayed because of problems related to land acquisition and lack of funds. Road maintenance and rehabilitation work, particularly at provincial and local levels, were interrupted by domestic budgetary constraints. With a view to addressing the persistent problem of limited funds available for road maintenance, the government proposed to set up a Road Fund in 2002. A special levy will be imposed on vehicles for this purpose. This levy will be collected at the time of issue or renewal of vehicle licences.

The Road Development Authority (RDA) is mainly responsible for the maintenance of national highways, consisting of 11,650 kilometres of A and B grade roads. It is also responsible for planning, developing and constructing national highways. In 2002, RDA implemented several major road projects with foreign funds. During the year, Phase II of the Baseline Road Improvement project was completed with assistance from the Japanese International Co-operation Agency (JICA). However, Phase III of the project from Kirullapone to Galle Road was suspended due to public resistance to land acquisition. The Kuwait Fund for Arab Economic Development (KFAED) granted financial assistance to reconstruct 31 bridges and one road project. The Export Import Bank of Korea (EIBK) provided funds to rehabilitate the Ratnapura – Balangoda section (42 kilometres) of the Ratnapura – Bandarawela road. By end 2002, 75 per cent of the work had been completed.

Construction work on the Southern Highway, which is to commence in 2003, is jointly financed by ADB and JBIC. The civil works contract of the ADB section of the project from Kurundugahahetekma to Godagama (56 kilometres) was awarded in December 2002 and construction work will commence in early 2003. In respect of the JBIC section from Kottawa to Kurundugahahatakma (67 kilometres), the prequalification of the civil works contracts was in progress. Construction work on this section is expected to commence in the third quarter of 2003.

The construction work on the Colombo – Katunayake Expressway commenced in 2000 with funds from the Consolidated Fund. The total estimated cost is Rs.11 billion. In the meantime, the government called for Expressions of Interest from investors to finance the project. One proposal is under review.

The proposed Outer Circular Highway would run from Kerawalapitiya to the Southern Highway at Kottawa through Mattumagala, Kadawatha and Kaduwela. The estimated cost is Rs.17 billion. Basic designs have been completed and environmental impact clearance has been received. The estimated cost of the Colombo-Kandy alternative highway project, under which a new highway runs from Kadawatha to Kandy, is Rs.29 billion. Detailed feasibility studies have been completed and the government has called for Expressions of Interest for implementation of the project on a BOO/BOT basis. RDA continued to implement the Road Network Improvement Project (RNIP) with assistance from ADB and JBIC to rehabilitate 345 kilometres of road and 47 bridges.

In addition to road development and rehabilitation projects carried out with foreign assistance, RDA implemented a number of road projects covering all provinces, including periodic maintenance with local funds. However, at the implementation stage of road projects, RDA faces numerous problems, mainly associated with land acquisition, causing excessive delays in implementation. Inadequate coordination between highway authorities and utility agencies has also resulted in delays in project implementation.

The total expenditure on road maintenance and the development of national highways in 2002 was Rs.9,877 million. This was a 6 per cent drop over the previous year. Of the total expenditure, around 58 per cent was from the Consolidated Fund, while the balance was received as foreign assistance.

Passenger Transportation

Road and rail passenger transportation remained sluggish in 2002. Concerted efforts were made to restructure the management of Regional Transport Companies (RTC) (Cluster Bus Companies) under public-private partnerships. The long awaited formula based bus fares policy was introduced in 2002 with a view to reducing uncertainties and encouraging investments. Meanwhile, the rail passenger service, in terms of quality and reliability, deteriorated further mainly due to financial constraints and operational deficiencies. However, studies were in progress to find ways and means to revitalise rail services with public-private partnerships. Rail fares remained unchanged for the sixth consecutive year, exerting heavy financial pressure on the government budget. Rail freight services, however, showed a moderate improvement during the year.

Road Passenger Transportation

In terms of the scale of operations, neither public sector passenger transportation managed by RTCs nor private bus operations have shown significant improvement during 2002. The bus fleet belonging to both private operators and RTCs stood at 24,689 in 2002. The share of private bus operators in the total fleet was about 64 per cent. The average number of buses operated per day dropped to 16,393 in 2002 from 16,587

in 2001. The average number of RTC buses operated per day declined by 310 to 5,412, whereas the number of private busses increased by 117 to 10,981. In terms of vehicle utilisation, on average, an RTC bus ran 200 kilometres per day, while a private sector bus ran 132 kilometres per day, indicating that private buses are relatively idle. This is mainly the result of the single crew system of private bus operations. In contrast, RTCs follow a pooling system, extending the bus-operating period. The re-organisation of private bus operators in a formal way would help optimal utilisation of buses and facilitate monitoring and regulation.

During the year, the total operated kilometerage by RTCs and private operators declined by 2 per cent to 925 million kilometers. The decline was a combined outcome of marginal increases in the operations of private buses and a slight decline in operations of RTCs. In terms of passenger kilometers, both sectors recorded marginal increases.

In 2002, consolidated total revenue and expenditure of RTCs marginally increased to Rs. 9,424 million, and Rs. 11,604 million, respectively. As a result, RTCs recorded an operating loss of Rs.2,180 million during the year. However, some RTC's were operating at breakeven point. The loss making RTCs financed their financial gap with suppliers' credit, use of termination benefits of employees, bank loans and overdrafts and budgetary transfers. Under these circumstances, the failure to adopt the fare increase granted by the National Transport Commission (NTC) in July 2002 further worsened the finances of RTCs. Government current transfers to RTCs amounted to Rs. 1,155 million in 2002. Further, RTCs received Rs. 525 million from the Treasury as subsidies for the provision of season tickets to school children at a concessionary rate and for the operation of bus services on uneconomic routes in rural areas.

The Ministry of Transport introduced a passenger fare policy covering both private and public road passenger transportation sectors in 2002. Ad hoc fare revisions, which have been the practice, have been a major obstacle to quality improvement and capacity expansion in that sector. It is essential that this fare policy be implemented effectively.

In terms of the bus fares policy, bus fares will be considered for revision annually, from 01 August every year. NTC will monitor cost escalation and calculate price movements in each cost component of the formula and will recommend appropriate fare revisions. Major components of the formula include fuel costs (27 per cent), crew costs (22 per cent), repairs (12 per cent), service, lubricants, tires and tubes (11 per cent), depreciation (10 per cent), finance costs and risks (10 per cent) and overheads costs (8 per cent). An interim fare revision will be granted where there is a rapid increase in the diesel price during the year. Additional benefits of the fare policy would be the gradual elimination of existing anomalies in fare stages and the re-adjustment of fare stages applicable to all routes. In terms of the formula, NTC allowed a 15 per cent bus fare increase with effect from 01 July 2002 after taking into account the previous fare revision granted in January 2001.

TABLE 5.8
Salient Features of the Transport Sector

					Percentage Change	
ltem .	Unit	2000	2001	2002(a)	2001	2002(a)
New registration of motor vehicles	nos.	91,929	72,634	113,351	-21.0	56.1
Buses	31	2,298	1,310	1,429	-43.0	9.1
Private cars	1)	13,848	8,426	12,003	-39.2	42.5
Three wheelers	**	11,656	10,274	20,876	-11.9	103:2
Dual purpose vehicles	19	7,928	5,864	8,591	-26.0	46.5
Motor cycles	11	39,987	34,119	54,762	-14.7	60.5
Goods transport vehicles	11	8,585	6,013	8,127	-30.0	35.2
Land vehicles	10	7,530	6,546	7,524	-13.1	14.9
Others	11	97	82	. 39	-15.5	-52.4
2. Sri Lanka Railways (SLR)						a contract of
Operated kilometers	,000	8,585	8,860	8,470	3.2	-44
Passenger kilometers	mn.	3,208	3,979	4,079	24.0	2.5
Freight ton kilometers	mn.	88	109	131	23.9	20.2
Total revenue	Rs.mn.	1,015	1,200	1,362	18.2	13.5
Current expenditure	. 0	2,686	3,020	3,328	12.4	10.2
Operating loss	11	1,671	1,820	1,966	8.9	8,0
Capital expenditure		5,040	4,425	2,015	-12.2	- 54.5
3. Regional Bus Companies						
Operated kilometers	mn.	387	420	397	8.5	-5.5
Passenger kilometers	,,	19,864	21,204	21,067	6.7	-0.6
Total revenue	Rs.mn.	6,941	9,113	9,424	31.3	3.4
Operating expenditure	17	8,491	11,516	11,604	35.6	0.8
Operating loss	••	1,550	2,403	2,180	55.0	-9.3
4 SriLankan Airlines						
Hours flown	hrs.	52,819	47,402	42,115	-10.3	-11.2
Passenger kilometers flown	mn.	6,860	6,556	6,180	-4.4	-5.7
Passenger load factor	%	67	67	76	0.6	13.4
Weight load factor	%	56	n.a	n.a	-	
Freight	Mt. '000	55	50	45	-9 .1	-10.0
Employment	no.	4,886	4,086	3,944	-16.4	-3.5

(a) Provisional

However, on a government directive, RTCs refrained from revising bus fares in 2002, even though they were operating at a loss.

Restructuring public sector passenger transport services was initiated in 2002. The Public Enterprise Reforms Commission (PERC) invited expressions of interest from private investors to acquire 39 per cent of the equity in 11 RTCs. The management of those companies is to be offered to successful bidders. Subsequently, an investor was selected to manage 6 RTCs and the deal is expected to be finalised during early 2003. Action has already been initiated to divest the remaining RTCs, Vavuniya Peoplised Transport Service Ltd. (VPTSL) and Northern Transport Company Ltd. (NTCL).

Several measures have been adopted in recent years to mitigate traffic congestion, particularly around schools in major cities. During 2002, the Ministry of Transport and NTC, together with the Ministry of Education, put into operation 49 school buses covering 10 schools in Colombo with a view to reducing the number of vehicles on the road. However, a sound long-term policy and concerted efforts are needed to mitigate traffic congestion in major cities.

Sourses:

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

The operations of private buses frequently come under public criticism mainly due to careless driving, unruly behaviour of bus crews, use of technically unfit vehicles and violation of traffic rules and regulations. During the year, NTC carried out checks on buses in various parts of the country to detect violations of route permit conditions.

The Department of Motor Traffic (DMT) registered 113,351 vehicles in 2002 against 72,634 vehicles registered in 2001. Vehicle registration in 2001 was the lowest in the last ten years due to the contraction of the economy in 2001. The termination of concessionary duty permits in 2000 also has had an impact on this drop. The total number of vehicles registered in 2002 included 1,429 buses, 20,876 three wheelers, 54,762 motorcycles and 12,003 motorcars. During the year, DMT introduced several policies and activities to facilitate its clients. Accordingly, the Department introduced a one-day service for vehicle transfers and a one-day service, namely 'Green Channel Service', for new registrations. With a view to avoiding delays in registration, DMT stopped vehicle inspection at the time of new registrations. Meanwhile, new registration of motorcycles was decentralised by handing over the authority for registration to the respective Divisional Secretariats.

Railway Transportation

In spite of financial difficulties and operational inefficiencies, Sri Lanka Railways (SLR), showed a slight improvement in 2002, in terms of scale of operation, compared with 2001. Goods transportation improved noticeably during the year.

Despite various operational constraints and qualitative setbacks in SLR's passenger transportation, it carried 106 million passengers, recording a 10 per cent growth over the previous year. The passenger kilometerage of SLR increased by 3 per cent. These improvements were partly due to a shift of some passengers from road transportation to rail, because traveling by bus was more expensive. Goods transportation showed a significant increase of 20 per cent in 2002, despite freight rates being raised by 50 to 250 per cent, with effect from September 2001.

As in previous years, train services on the Northern line were operated only up to Vavuniya, on the Mannar line up to Medawachchiya and on the Eastern line only up to Valachchenai due to damage or destruction of rail track as a result of terrorist activities. With the ongoing peace process, the challenging task is restoring the train services on these lines. Steps have been taken to reconstruct the Eastern railway line up to Baticaloa during the year. The Northern line, extending from Vavuniya to Kankasanthurai (155 kms.), and the Mannar line (107 km) needs complete reconstruction. Efforts are being made to reconstruct the Northern and Eastern railway lines. According to provisional estimates, a sum of Rs. 8,000 million will be required for reconstruction activities and to recommence train services on these lines. Reconstruction work on the Baticaloa Line (30 kms.) has commenced in 2002.

There are a series of impediments to the efficient operation of SLR. SLR owns only 133 locomotives and power sets for daily operations, though it needs 151 to meet the demand and to operate as per timetables. The old and obsolete nature of existing rolling stock and decaying rail track, un-standardised sleepers, shortage of ballast, and outdated signalling systems have adversely affected the provision of a satisfactory service and the maintenance of safety standards. There were 104 derailments and 543 locomotive failures in 2002 compared to 96 derailments and 671 locomotive failures in 2001. The punctuality of commuter train services remained at around 80 - 85 per cent in 2002. The average locomotive failure rate per month decreased marginally from 56 in 2001 to 54 in 2002. The maintenance cost of rolling stock has been very high due to the obsolete nature of most locomotives and power sets. For some locomotives spare parts are not available in the market and therefore, high costs are incurred to reproduce them. Lack of capital infusion to the SLR from the government has further deteriorated the service. A broad-based restructuring program, based on public sector - private sector partnership with a self-financing mechanism, would help to solve operational deficiencies in SLR without imposing much of a burden on the government budget.

The financial performance of SLR recorded continuing losses in 2002. Total revenue increased by 14 per cent and operating expenditure increased by 10 per cent. Freight services were responsible for 40 per cent of the increased revenue. The growth in operating expenditure was mainly due to increases in salaries and wages (by 10 per cent) and fuel costs (by 26 per cent). Consequently, the operating loss of SLR increased by 8 per cent to Rs.1,966 million in 2002. In a situation where operating expenditure has been rising constantly, it is difficult to justify the non-adjustment of rail fares since 1996, at least to cover partially the operating losses.

In 2002, several steps were taken to improve railway management, particularly in the areas of planning, human resources development and information technology. Further, with a view to enhancing the efficiency and quality of the rail service, an Indian study team carried out an investigation to identify options and strategies to introduce public-private partnerships in railway operations. Their recommendations are expected in early 2003.

Civil Aviation

Most urgent reforms in the civil aviation sector were addressed in 2002 by passing the Civil Aviation Authority of Sri Lanka Act. Accordingly, the Civil Aviation Authority of Sri Lanka (CAASL) was established by transforming the Department of Civil Aviation (DCA), enabling the CAASL to take more independent commercial decisions. On the operational side, the civil aviation sector showed a slight improvement in 2002, following the severe setback in the previous year after the terrorist attack at the Katunayake International Airport (KIA) and the September 11 terrorist attacks in USA. More importantly, with the ceasefire agreement and improved prospects of peace, the DCA allowed private domestic flight operations and several new licenses were issued in 2002.

The terrorist attack at KIA in July 2001 reduced the SriLankan Airlines (SLA) fleet by half to 6 planes. The subsequent increase in insurance premia forced airfares to rise. As a result, a few reputed international carriers shifted their services from Colombo, while others reduced the frequency and downgraded carriers to avoid high insurance premia. The September 11 terrorist attack in USA crippled the global air travel industry reducing aviation activity, especially tourism. The situation was further aggravated by a slowdown in the world economy in 2001. The cumulative effect of these factors adversely affected the civil aviation industry globally even in 2002.

During 2002, there were 32 airlines including 3 domestic airlines operating in Sri Lanka, compared to 27 airlines providing only international services in 2001. The number of air passengers passing through KIA, increased by 6 per cent to 2.9 million in 2002. Of the total number of air passengers, 60 per cent travelled by SLA. Meanwhile, 3 private domestic airline services, whose operations were suspended by the government in 1998 for security reasons, resumed service in

2002 and carried 41,034 passengers during the year. The total freight tonnage handled at KIA increased by 6 per cent in 2002. Of the total freight tonnage, 44 per cent was handled by SLA.

During the year SLA added an Airbus to its fleet bringing the total fleet to 9 Airbuses. In 2002, SLA launched two new routes to India, namely, to Bangalore and Bodh Gaya and resumed services to Frankfurt. In 2002, SLA flew 42 million kilometres, a 5 per cent drop over the previous year. Meanwhile, passenger kilometres flown dropped by 6 per cent.

The financial performance of SLA showed a slight improvement in 2002. The total revenue of SLA in 2002 grew by 12 per cent to Rs. 31,583 million, while total operating expenditure dropped by 15 per cent to Rs. 31,558 million. As a result, SLA reported an operating profit before tax of Rs.25 million during the year.

CAASL became functional with effect from 27 December 2002. All the functions and responsibilities of DCA were vested with CAASL. According to the Act, CAASL will be the principal regulatory authority in civil aviation operations in the country. Further, CAASL will formulate a national aviation policy, prepare aviation development plans, provide aviation safety, issue licences, certificates and permits and monitor commercial air services.

The civil aviation industry has vast potential to expand and substantially increase its value addition to the economy, exploiting its advantageous geographical location. Air cargo handling is expected to grow faster in the Asian region. Sri Lanka's cargo handling efficiency needs to be maintained at levels competitive with such places as Singapore and Dubai. The domestic aviation industry needs special attention, as there is tremendous potential for development in line with the improvements in the tourist industry.

Port Services

Port services recovered strongly in 2002 following a setback in 2001. With the gradual reduction of the war risk surcharge (WRS) and its complete removal from March 2002, port services improved to previous levels. Further, easing of the security threat to the port with the ceasefire agreement, improvements in import and export volumes, and measures introduced to enhance port productivity all contributed to improve port operations during 2002. With the imposition of the WRS on ships arriving at Sri Lankan ports after the terrorist attack on KIA in July 2001, several major shipping lines had diverted their services from Colombo to neighboring ports. At the same time, the country's trade volume in both imports and exports dropped significantly after the September 11th terrorist attack in USA. As a result, port activities dropped significantly during the second half of 2001. However, timely measures taken by the government and action taken by SLPA to enhance productivity enabled these lost services to be brought back in 2002.

The number of ships arriving at the Colombo Port increased by 6 per cent to 3,787 during 2002. However, the

number of ships arriving at Galle and Trincomalee ports fell. Container vessel traffic rose by 5 per cent from 2,891 in 2001 to 3,033 in 2002, while conventional vessel arrivals increased by 7 per cent.

Container handling at the Port of Colombo expanded by 2 per cent to 1,764,694 TEUs. This was the highest ever container throughput handled at the Port of Colombo. During the year, transshipments increased by 2 per cent, while domestic container handling grew by 3 per cent. The total cargo handed at all three ports during 2002 rose by 5 per cent to 28 million metric tons.

Improved performance at the Port of Colombo in 2002 was mainly from the operations of South Asia Gateway Terminals (Pvt.) Limited (SAGT). SAGT's share in total cargo handled increased further to 21 per cent in 2002 from 13 per cent in 2001. The performance of SLPA, in terms of container throughput and transshipment container handling, declined by 14 per cent and 12 per cent, respectively. The main reasons for the decline of SLPA's activities were the closing down of the Jaye Container Terminal (JCT) for several months for dredging and expansion, the closing down of the Unity Container Terminal for construction, and other construction work carried out in feeder berths. However, the overall port activities of SAGT improved significantly during the year. At SAGT, container throughput increased by 69 per cent, while transshipment handling grew by 57 per cent.

Port productivity indicators improved in 2002. In respect of main line vessels, SLPA gantry crane moves per hour increased from 16 in 2001 to 24 in 2002, while SAGT gantry crane moves increased from 15 to 25. The average delay in berthing at SLPA terminals declined from 3.2 hours to 1.9 hours.

The productivity gains at the terminals managed by SLPA, especially at JCT, were attributable to certain operational reorganisations introduced during the year. The system of 'speed money' given to operational staff by shipping lines were eliminated and an alternative productivity based Target Bonus System was introduced. Cargo handling on public holidays and other measures such as the provision of better transport for employees also contributed to improve productivity. In order to improve port productivity on a sustainable basis and to reduce operating expenses, SLPA introduced a long awaited voluntary retirement scheme (VRS) to reduce its redundant staff. SLPA had a labour force of 17,910 at end 2002, which is considered to be about double the optimal level. Under the VRS, 2,993 employees retired from port services.

Along with productivity improvements SLPA was able to attract seven new main line services in 2002. SLPA entered Terminal Services Agreements (TSA) with Hanjin Shipping Lines, Sealand (the largest container operator in the world) and APL the fourth largest shipping line.

It has been widely held that Sri Lanka has not been able to exploit the maximum potential from port and shipping services, given its strategic location in the Indian Ocean. In view of this, the government has initiated the development of

TABLE 5.9	
Performance of the Port	Services

ltom		0004		Percentage Change		
ltem	2000	2001	2002(a)	2001	2002(a)	
1 Vessels arrived (No.)	4,232	4,014	4,062	-5	1	
Colombo	3,832	3,570	3,787	-7	6	
Galle	97	117	76	21	-35	
Trincomalee	303	327	199	8	-99	
2 Total cargo handled (MT '000)	27,535	27,062	28,313	-2	5	
Colombo	25,222	24,741	26,273	-2	6	
Galle	597	662	526	11	-21	
Trincomalee	1,716	1,659	1,514	-3	-9	
3 Total container traffic (TEUs '000)	1,733	1,727	1,765	0	2	
SLPA	1,432	1,397	1,207	-2	-14	
SAGT	301	330	558	10	69	
4 Transshipment container (TEUs '000)	1,181	1,195	1,218	1	2	
SLPA	959	959	848	Ó	-12	
SAGT	222	236	370	6	57	
5 Revenue (Rs. mn.) (b)	14,717	16,389	15,667	11	-4	
Colombo	14,079	15,625	15,105	11	-3	
Galle	320	390	332	22	-15	
Trincomalee	318	374	230	18	-39	
6 Expenditure (Rs. mn.) (b)	10,744	12,193	12.870	13	6	
Colombo	10,272	11,577	12,212	13	5	
Galle	208	270	305	30	13	
Trincomalee	264	346	953	31	2	
7 Operating profit-before tax (Rs.mn.) (b)	3,973	4,195	3,930	6	-6	
Colombo	3,807	4,050	4,026	6	-1	
Galle	112	117	27	4	-77	
Trincomalee	54	28	-122	-4 8	336	
B Employment (no.) (b)	19,344	18,561	17.910	-4	-4	
Colombo	17,411	16,744	16.157	-4	-4	
Galle	758	737	752	-3	2	
Trincomalee	1,175	1,080	1,001	-8	-7	
9 Productivity indicators (main vessels)						
Gantry moves per hour (gross)	15	16	24	7	50	
Gantry moves per hour (net)	17	18	26	6	44	

⁽a) Provisional

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Source: Sri Lanka Ports Authority

two major projects, viz., the Colombo South Harbour Development Project and Hambantota Port Development Project. During 2002, pre-feasibility studies were in progress in respect of these port projects.

The financial performance of SLPA did not improve in 2002. Total revenue declined by 4 per cent to Rs.15,667 million while operating expenditure increased by 6 per cent to Rs. 12,870 million. As a result, operating profit before tax and interest payments amounted to Rs.3,930 million, a 6 per cent decline from the previous year.

5.7 Irrigation and Settlement Schemes

Expenditure incurred by the Irrigation Department on 19 locally funded projects during the year amounted to Rs. 428 million. Expenditure on two major foreign funded projects namely, the Hambantota Irrigation Rehabilitation Project and Welioya Diversion Project amounted to Rs. 270 million in 2002. During the year, the Irrigation Department implemented the government policy of participatory irrigation management of major and medium schemes through 'Waphaula'

programme. Main objective of the Waphaula programme is to facilitate efficient, effective and sustainable joint management for improved water and land productivity with beneficiary participation aimed at enhancing farmer income. At present there are 200 schemes coming under the above programme covering an extent of 89,000 ha. During the year, 1,143 families were settled under the Uda Walawa system.

5.8 Special Programmes

Housing

The demand for housing expanded rapidly in 2002, with the recovery of the economy and falling interest rates. Government decided to accelerate its housing programmes for low and middle-income households, by introducing a special housing loan scheme in 2002 with an interest subsidy component. Further, public sector housing finance institutions, as well as private housing finance institutions, further expanded their housing finance projects. It has been estimated that housing finance institutions granted 83,698 housing loans in 2002,

⁽b) Only for Sri Lanka Ports Authority

TEUs = Twenty-foot equivalent container units

	Units Commenced (No.)		Units Completed (No.)		Disbursements (Rs.Mr	
Sub Programme	2001	2002(a)	2001	2002(a)	2001	2002(a)
Janaudana Programme	2,095	9,162	5,212	9,029	84.2	208,6
Rural Housing Programme		110100000000000000000000000000000000000				
Scattered Loan & Grants Programme	16,493	13,446	19,326	12,726	108.9	11.4
Urban Housing Programme						
Scattered Loan & Grants Programme	1,615		2,230	-	8.3	-
Estate Housing Programme	1,113	3,325	1,192	3,391	34.6	64.2
Direct Construction Programme	490	•	1,226	705	350.0	196.7
Disaster Housing Programme	492	-	536		15.7	
Fisheries Housing Programme	-	-	83		0.1	2.5
Pradeshiya Gamudava Programme	•	583	-	294		8.4
Total	22,298	26,516	29,805	26,145	601.81	489,28

TABLE 5.10

Public Sector Housing Programme

(a) Provisional

Source: National Housing Development Authority

compared to 58,760 in 2001. There is a shortage of around 400,000 housing units in the country. In addition, a large number of existing housing units are of substandard quality requiring reconstruction.

State sector housing programmes mainly focus on meeting the housing needs of low and middle-income families, while private sector housing programmes are largely focused on middle and high-income families, particularly in the urban sector. The government continued to provide direct assistance to low income families to build or upgrade their houses. BOI offered attractive concessions to private investors who undertake construction of medium density residential housing projects. In the meantime, the government continued to undertake special housing projects to relocate slum and shanty dwellers, thereby releasing prime urban lands for commercial purposes.

Scarcity of lands for housing, especially in urban areas, and delays and difficulties in obtaining title documents restrain the growth of the housing finance market. Further, reluctance on the part of some private funding institutions to use Sawarnaboomi and Jayaboomi deeds as collateral also restricts private sector housing finance activities. Financial institutions also face difficulties in granting loans to purchase houses in condominiums, as titles to such property are available only after the construction of the condominiums.

The government introduced a special housing loan scheme for middle-income earners in 2002. Under this programme, government intends to provide, through housing finance institutions, 10,000 housing loans of up to Rs.500,000 each at a subsidised interest rate of 10.5 per cent per annum with a repayment period of 15 years. Government has allocated Rs.300 million to meet the interest subsidy in 2003.

The National Housing Development Authority (NHDA), the Ministry of Fisheries and Ocean Resources (MFOR) and the Plantation Human Development Trust (PHDT) play major roles in the provision of public sector housing. NHDA is the apex institution responsible for implementing key public sector housing programme, viz., the Janaudana Housing Programme, Rural Housing Programme and Estate Housing Programme. NHDA provides a maximum loan of Rs.50,000 to a beneficiary to build or upgrade his own house under these programmes.

NHDA increased its activities in 2002 when compared to 2001. It implemented a new housing programme called 'Pradeshiya Gamudawa' to uplift living conditions of rural communities in the districts of Nuwara Eliya, Hambantota, Kalutara and Anuradhapura, during 2002. NHDA assisted through the provision of loans, grants and technical assistance. Basic utility services and public amenities were also provided with the assistance of other government agencies. Total disbursements under NHDA programmes decreased by 19 per cent to Rs 489 million in 2002. The number of housing units whose construction commenced during 2002 increased by 19 per cent. Funding requirements of NHDA are met partly from the recovery of previous loans. Government transfers to NHDA amounted to Rs. 230 million in 2002. The loan recovery rate of NHDA improved from 70 per cent in 2001 to 84 per cent in 2002.

MFOR continued implementing the Diyawara Gammana housing programme. During 2002, a total of 4 housing schemes with 426 housing units were completed under this programme. MFOR disbursed Rs.3.5 million during the year for this purpose. PHDT continued implementing several housing construction and upgrading programmes in the estate sector under the Plantation Development Support Programme (PDSP) in 2002. The housing construction programme directly financed under the PDSP provides Rs. 85,200, comprising a grant of Rs. 40,000 and a loan component of Rs. 45,200 to an estate sector employee. Further, PHDT implemented several other housing construction and upgrading projects with the collaboration of NHDA and commercial banks. In 2002, a total of 2,216 new housing units were completed, while 511 units were upgraded under PDSP. In addition, PDSP provided water supply and sanitation facilities and health and welfare facilities to existing estate settlements. The total expenditure under this programme decreased by 4 per cent to Rs. 167 million in 2002.

The Sustainable Township Programme (STP) designed to solve the housing problems of people living in under-served settlements (slums and shanties) continued to operate under the management of Real Estate Exchange (Pvt) Ltd. (REEL). STP is a self-financing model, commenced in 1999, to provide housing facilities to some 66,000 households living in underserved settlements. The first housing complex, called 'Sahasa', with 671 housing units neared completion. This project enabled REEL to liberate 9.74 acres of prime lands within the city of Colombo. REEL plans to construct 20,000 housing units between 2003-2006.

SMIB, HDFC and NSB together granted 25,124 housing loans in 2002, in comparison to 18,994 in 2001. Meanwhile, commercial banks, namely, BOC, PB, HNB, Seylan Bank and Commercial Bank, together granted 43,677 housing loans in 2002, a 92 per cent growth over 2001.

Urban Development

Urban infrastructure development funded by the public sector was adversely affected by a shortage of funds in 2002, mainly due to fiscal constraints, as budgetary allocations for capital projects were significantly less in 2002. As a result, many ongoing urban development projects were either postponed or progressed slowly and the commencement of new projects was postponed. The Urban Development Authority (UDA) has been vested with responsibility for the planned development of major urban centres in the country. Its functions include guidance, facilitation and regulation of urban development through innovative and integrated planning. An efficient urban infrastructure system is essential for the smooth functioning of private and public institutions, as well as the economic and social well being of the urban community. It has been projected that one half of the estimated population would live in urban areas by 2010, if current population growth and urbanisation trends continue. Therefore, it is important that, in light of financial constraints in the public sector, an environment conducive to private sector participation in the provision of urban public goods, is created, wherever feasible.

Scarcity of land has been cited as one of the main obstacles for further expansion in urban services in the City of Colombo as well as in most other major urban centres. A project has been designed to identify unproductive and vacant land in the city of Colombo for expansion of urban services. Large extents of unproductive lands in Colombo belonging to the government have been identified as suitable for development work in the Colombo Metropolitan Regional Structure Plan (CMRSP). It has been envisaged to shift most administrative establishments out of Colombo to release valuable land and develop the city as a commercial centre. The relocation of the Welikada Prison and Headquarters of the

Defence Services has been postponed due to financial constraints. Under the Sustainable Township Programme (STP), it has been envisaged to release about 600 acres of land in the City of Colombo for other uses by relocating 66,000 under-served households.

During 2002 work on the Beira Lake Redevelopment Project, construction work at the Information Technology (IT) Park at Malabe, relocation of the Pettah wholesale market continued. Work on the access road to the proposed IT Park at Malabe and the acquisition of land for construction of infrastructure for the same project were in progress. The total estimated cost of this project is Rs.900 million. Two IT companies have already located in the park, while 7 companies are waiting to obtain land in the Park.

The main operational activities of UDA include the construction of administrative complexes, commercial complexes, town improvement projects, industrial projects, integrated projects and social and cultural projects. In addition, UDA implemented several projects on behalf of public sector institutions and continued to maintain the Land Bank. The total expenditure on implementation of these programmes amounted to Rs.481 million, a decline of 63 per cent from the previous year. The sources of funds for these projects were the Consolidated Fund (52 per cent), UDA's own funds (30 per cent) and funds received from client institutions (18 per cent). Of the total investment, 66 per cent (Rs.319 million) was on projects undertaken on behalf of client institutions, while 12 per cent was for the construction of commercial complexes. Under the Town Improvement Project, 17 towns have been identified for development. Final plans for four cities have been completed.

Water Supply

It has been revealed in several surveys that the proportion of households with access to safe drinking water is about 70 per cent, of which only about 35 per cent have access to pipe borne water. The main objective of the national water supply policy is to ensure that all residents have access to safe drinking water by 2010. The National Water Supply and Drainage Board (NWSDB) aims to expand the water supply coverage to about 80 per cent by 2005. A substantial reduction in non-revenue water distribution, which presently stands at around 31 per cent, and a 24-hour supply of pipe borne water to all consumers by 2005 are the other major objectives of NWSDB. NWSDB has estimated that in order to achieve these objectives, an investment of Rs. 10 - 12 billion per year would be needed. The government of Sri Lanka, on average, allocates about Rs.5 billion per year for water supply projects. Therefore, it is necessary to attract an equal amount of private investment in the water supply sector to fill the investment gap and to achieve the set objectives. At the same time, community organisations and NGOs can play a significant role in the distribution and maintenance of water supply projects located in rural areas. There can be minimum involvement by the government in the

areas of technical assistance, institutional support and market friendly regulation. The active role of local government institutions is equally important in expanding access to safe drinking water.

Two pilot projects, namely, the Greater Negombo and the Kalutara to Galle water distribution projects, have been identified by the government for private sector participation. Initially, consultants have been appointed to study the best model of private sector participation suitable for these two pilot projects. It is expected to mobilise a private sector operator in Negombo in early 2004. In order to encourage private sector participation, a cost effective and flexible pricing policy and an effective regulatory mechanism needs to be established. The Public Utilities Commission of Sri Lanka, once established, will be responsible for regulating the water sector in the country.

The demand for pipe borne water has increased continuously with population growth, urbanisation, and expansion of industries and commercial activities, and because pollution and drying up of natural water sources make them unusable. There is a large unmet demand. Pipe borne water is presently available only to about one third of all households. A poor water supply heightens risk of water borne diseases and other public health hazards.

On the supply side, NWSDB stands as the apex institution responsible for the development, distribution and maintenance of water supply schemes. NWSDB operated 275 water supply schemes with 727,554 connections in 2002. The total water supply of NWSDB increased by 2 per cent to 350 million cubic metres (MCM) in 2002 over the previous year. NWSDB provided 62,388 new connections during the year.

NWSDB implemented 82 upgrading and rehabilitation projects at a cost of Rs.406 million during the year. An additional population of 1,265,000 will benefit once these projects are completed.

Total investment in the water supply sector by NWSDB grew sharply, more than twofold, to Rs.8,159 million in 2002 from Rs.3,896 million in 2001. Of the total investment, 85 per cent was on new projects, while the balance was on the rehabilitation of existing projects. Approximately 68 per cent of these funds were received on concessional terms from foreign funding agencies including ADB, JBIC, IDA and KFW.

NWSDB implemented several major water supply projects in 2002. The Small Towns Water Supply Project (STWSP) funded by ADB continued during 2002. This project aims to provide water supply and sanitation facilities to 47 small towns (population below 6,000) in the Kalutara, Kegalle, Anuradhapura, Monaragala, Puttalam and Hambantota districts. Community participation is expected at the implementation stage, as well as for maintenance. During 2002, construction work commenced on 6 sub-projects. An important objective of this project is to improve the health and well being of one million people living in these districts by improving

water supply and sanitation facilities and through health education.

NWSDB also continued the implementation of the Towns South of Colombo Water Supply Project, funded by JBIC. The total capital investment on this project has been estimated at Rs.2,560 million and a population of 260,000 will benefit once the project is completed. In addition, NWSDB implemented several water supply projects such as the Towns North of Colombo Water Supply Project, the Nuwara Eliya Water Supply Augmentation Project, the Ampara District Eastern Coastal Area Water Supply Project, the Greater Kandy Water Supply and Environmental Improvement Project, the Kalu Ganga Water Supply Project and Secondary Towns Water Supply and Sanitation Project in 2002.

Further, NWSDB implemented a project aimed at reducing non-revenue water distribution in Colombo. The project components include rehabilitation/strengthening the distribution network in Colombo, rehabilitation of the Maligakanda and Eli House reservoirs, rehabilitation of water transmission and distribution facilities in identified areas and the reduction of non-revenue water distribution to low income settlements and public stand posts in Colombo.

The total revenue of NWSDB rose by 13 per cent to Rs. 4,814 million in 2002. This increase in revenue was largely due to the expansion in the consumer network and the upward revision of water tariffs in June 2002. The tariff applicable to the domestic sector was raised between 12.5 per cent to 87.5 per cent, while the tariff applicable to the industrial and commercial sectors was raised by about 20 per cent. The main objectives of the tariff revision were to reduce existing cross subsidies in the tariff system, encourage people to conserve water by giving an economic value to water and to cover rising operating expenses. NWSDB reported a net operating profit of Rs.112 million in 2002, compared to Rs.389 million in 2001.

Samurdhi Programme

The long-standing and highly debated issue of targeting Samurdhi beneficiaries was addressed by the enactment of the Welfare Benefit Act (WBA) in 2002. The disputed system of identifying eligible beneficiaries, tack of a proper entry and exit mechanism and political interference, caused the Samurdhi programme to expand excessively beyond its long-term sustainability. Yet, a large number of eligible poor households remained outside the programme, while there were a large number of ineligible households in the programme. WBA clearly specifies the selection procedure, according to given criteria by an independent panel. With the implementation of WBA, it is expected that the number of Samurdhi beneficiaries would come down to a realistic number enabling authorities to provide increased benefits to eligible households (see Box 16).

However, as an interim measure prior to removing ineligible families from the programme, government took the following measures in 2002 to reduce expenditure by Rs.2 billion. (a) The monthly income ceiling for eligibility to receive

Cash Grant	2000		200	2001		2002 (a)	
Amount (Rs.)	No. of Families	Value (Rs.Mn)	No. of Families	Value (Rs.Mn)	No. of Families (b)	Value (Rs.Mn)	
Samurdhi Income Supplementary Programm	ie (c)				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
Rs.1,000	10.516	126	8.968	108	3.954	67	
Rs.700	897,863	6,285	858,902	7,215	589,460	5,663	
Rs.400	521,856	1,957	487,991	2,342	335,727	1,860	
Rs.350	359,211	1,132	363,752	1,528	320,759	1,400	
Rs.250	223,857	437	233,718	701	238,593	701	
Rs.140	382	0.6	9,282	16	398,244	242	
Total	2,013,685	9,938	1,962,613	11,910	1,886,737	9,933	
Total (excluding families receiving Rs. 140)	2,013,303	9,937	1,953,331	11,894	1,486,493	9,691	
Dry Ration Programme Rs. 336 -1260 (d)	154,218	1,684	168,965	1,818	145,777	1,453	

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109,202

83,575

TABLE 5.11

Samurdhi Welfare Programme

Number of Beneficiary Families and Value of Grants 2000-2002

(a) Provisional

Nutrition Programme

(b) Based on the Samurdhi card issue in November 2002.

(c) Cash Grants increased to these levels in August 2000.

(d) Based on Samurdhi cards issued during the year.

100 (Rs. 150 with effect from April 2000)

Samurdhi benefits was raised to Rs.1,500 from Rs.1,000 per household from May 2002; (b) Allocations to districts were reduced by 25 per cent; (c) Allowance cards issued to families of security personnel in active service in the North and East, and families of persons missing during the violence were cancelled; (d) The value of allowance cards was reduced from Rs.700 to Rs.600 from November 2002. As a result the total number of households receiving the Samurdhi income supplement declined by 24 per cent to 1,488,493 by end of 2002. However, to encourage ineligible families to exit the programme, departing families were paid Rs. 140 per month to cover expenses for compulsory deposits (Rs. 100), social security contributions (Rs. 30), and the housing lottery (Rs. 10), so that they could continue to benefit from other Samurdhi programmes.

The main objective of the Samurdhi Programme is to improve the living standards of the poor with direct assistance to vulnerable groups and to assist in various other programmes such as small scale infrastructure development, training and financial and social security to raise the income levels of the poor. The main institutions involved in the implementation of the Samurdhi Programme are Samurdhi Authority of Sri Lanka (SASL), Department of the Commissioner General of Samurdhi (DCGS) and the Department of Poor Relief (DPR).

The number of Samurdhi beneficiary families, which was about 1.5 million in 1995, increased to around 1.9 million by 2002. About 50 per cent of the total population received direct benefits. As a result, the cost of the programme increased rapidly to Rs.12 billion in 2001 from Rs.8 billion in 1995. At the same time, administrative expenses of the programme also increased significantly. Total administrative expenses of the entire Samurdhi programme amounted to Rs. 75 million in 2002.

Source: Department of Poor Relief

According to the Department of Poor Relief (DPR), at end June 2002 about 1.9 million families received allowances under the income supplementary programme. The original estimated expenditure for the year was Rs.12 billion. However, due to adjustments to welfare payments from May 2002 and the reduction in the number of beneficiaries, government expenditure decreased by 17 per cent to Rs. 9,933 million in 2002. In addition to Samurdhi relief recipients, there were 83,171 families receiving nutrition allowances at end 2002. The total value of nutrition cards issued fell by 42 per cent to Rs. 80 million in 2002. In addition, a total of 145,777 families received assistance to the value of Rs.1,453 million under the Samurdhi Dry Ration Scheme in 2002. Accordingly, the total value of all poor relief programmes amounted to Rs.11,466 million in 2002.

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In addition to the income supplement programme implemented by DPR, SASL implemented several programmes to develop additional income generating activities for the poor. Rural development, agriculture development, livestock and fisheries development, marketing development, industrial development, human resources and institutional development were the major programmes implemented by the SASL during 2002. The total cost of these programmes amounted to around Rs. 70 million.

DCGS maintains the Samurdhi Social Security Fund (SSSF), which provides financial assistance to Samurdhi members for events such as births, deaths, marriages and hospitalisation. The premium is Rs.30 per month per member, deductible from Samurdhi payments. In 2002, the SSSF paid out Rs.128 million as compensation against 84,119 claims.

There were 996 Samurdhi Banking Societies (SBS) operating at end 2002. The total value of accumulated compulsory savings in SBS was Rs.8,047 million. This was an increase of 9 per cent over the previous year. Meanwhile,

voluntary savings of Samurdhi beneficiaries grew by 78 per cent to Rs. 5,537 million in 2002.

5.9 Environment

Developments on the macroeconomic front in 2002 are likely to have had a favourable impact on the environment as a whole. Lower interest rates, decelerating inflation, price liberalisation and structural reforms introduced in 2002 would have had positive impact on the environment, while tight fiscal policy exerted adverse pressure on the environment as new investments to improve the environment both at national and sub-national levels were affected. The Ministry of Environment and Natural Resources (MENR), the institution setting the environment policy of the country, introduced several policy measures to protect the environment and to mitigate environment pollution, while the Central Environmental Authority (CEA) continued its monitoring, controlling and regulatory functions. There are a large number of NGOs engaged in promoting awareness about the damage to the environment.

MENR took necessary steps to phase out the use of leaded gasoline and to introduce unleaded gasoline with effect from June 2002. The government approved the implementation of the new National Strategy for Solid Waste Management based on a three-year action programme. A policy decision was also taken to promote private sector participation in solid waste management. The National Environment Policy (NEP) document, which was drafted with public participation, has been forwarded for Cabinet approval. The draft NEP emphasises the importance of integrating environmental concerns with policies for sustainable economic development. To incorporate cleaner production technologies into the development process, MENR, in collaboration with the National Cleaner Production Centre (NCPC), initiated the preparation of a national policy on cleaner production in 2002. Further, in view of the rapidly deteriorating natural environment and increasing threats to wild life from human activities, MENR declared the Anawilundava Sanctuary and Kaudulla National Park in the North Central Province as protected areas.

MENR implemented several environment promotion programmes. Under the 'Pavithra Ganga' programme, MENR continued to monitor the quality of water of selected inland water bodies in 2002. A regular water quality reporting system was established in respect of the Kelani river, with the support of relevant local authorities. MENR also prepared a Hazardous Waste Management plan in 2002. A Cabinet sub-committee on

hazardous waste management, especially, trans-boundary movement of hazardous waste in the Asian Region, was appointed. Further, an Air Resource Management Centre (Air MAC) was established to address air pollution issues. Several steps were taken to implement the Vehicle Emissions Control Programme effectively. Accordingly, 500 mechanics were trained in vehicle emissions reduction processes and 75 technicians were trained as resource persons. An institutional arrangement was also developed to function as vehicle emission testing centres covering whole island.

Some environmental issues have global implications. Sri Lanka has ratified several international environmental treaties dealing with these issues. Accordingly, MENR continued to coordinate international conventions such as the Montreal Protocol on the use of substances that deplete the ozone layer, the Basle Convention on the Control of Trans Boundary Movement of Hazardous Waste, the United Nations Convention on Combating Land Degradation and Desertification and the United Nations Framework Convention on Climate Change. A convention reference centre was established at MENR for co-ordination and implementation of international treaties.

Sri Lanka has ratified the Kyoto Protocol in 2002. As a low green house gas (GHG) emission country, Sri Lanka qualifies to participate and benefit from the Clean Development Mechanism (CDM). Under CDM, those countries whose per capita emission level is greater than the stipulated level (mostly developed countries), can claim emission-credits for emission-cutting investment projects in developing countries. The private sector could be encouraged to participate in environment friendly investment projects under CDM. Investments could be expected in the areas of energy, agriculture, land use, reforestation, adoption of energy efficient technologies and solid waste collection and disposal. In 2002, MENR prepared a national CDM strategy.

CEA, the regulatory arm of the MENR, is mainly engaged in conducting Environmental Impact Assessments (EIA), implementing the Environmental Protection Licences (EPL) scheme, enforcement of regulations, monitoring and in environment promotion activities. In 2002, CEA processed 280 EPL and issued 258 new EPL. CEA continued to monitor performance in industries in relation to the discharge of effluents, noise and wastewater, in order to determine compliance with set standards. During the year, CEA processed 71 EIAs and 11 projects were approved. CEA handled 885 public complaints in connection with environmental issues in 2002 compared to 997 in 2001.