

MAHINDA CHINTANA : VISION FOR A NEW SRI LANKA

**A Ten Year Horizon
Development Framework 2006 - 2016
Discussion Paper**

Department of National Planning
Ministry of Finance and Planning

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Contents

	Page
Executive Summary	
1. Transforming Agriculture for Prosperity	01
2. Development Strategy for Irrigation	39
3. Industrial Development : Towards diversified high value added Industry base	50
4. Economic Infrastructure	
- Power & Energy	63
- Telecommunication	79
- Water Supply & Sanitation	82
- Roads	87
- Transport Services Sustainable Mobility	92
- Port & Aviation	100
- Postal Sector	104
5. Tourism	107
6. Urban Development and Human Settlements	114
7. Livelihood Development and Social Protection	124
8. Education	142
9. Health	155
10. Sports and Culture	169
11. Towards a Flexible and Globally Employable Workforce	175
12. Science & Technology	188
13. Environment	197
14. Public Administration Reforms	212
15. The Development in the Conflict Affected Districts	218
16. Macro Economic Framework	225

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DISCUSSION PAPER ON DEVELOPMENT FRAMEWORK 2006-2016

EXECUTIVE SUMMARY

“Mahinda Chintana” - Vision Towards a New Sri Lanka aimed at raising the GDP growth rate in excess of 8 per cent. The new approach integrates the positive attributes of market economic policies with the domestic aspirations by providing necessary support to domestic enterprises and encouraging foreign investments.

The economic policies during the past two and a half decades has contributed to a average annual GDP growth rate of around 5 per cent. However, the benefits of growth had not filtered to many segments of the population and sufficient domestic entrepreneurship development did not take place. The new development strategy builds on the positive aspects of the past policies while trying to address their limitations, weaknesses and lapses to improve growth prospects with equitable development in the country, with special emphasis on the needs of lagging regions.

Based on this strategy, a long time development programme covering 2006 to 2016 has been prepared within the broad policy framework of Mahinda Chintana. The formulation of the programme has undergone an intensive consultative process involving sectoral Ministries and other relevant agencies. The programme underlies a ten year macro-economic framework with an 8 per cent GDP growth target for next six years and a higher target of 9-10 per cent thereafter. Within the macro economic parameters the programme includes ten-year policy frameworks for various sectors of the economy covering sector visions, issues challenges, and strategies.

During the next ten years, Sri Lanka’s population is expected to increase from the present (2005) level of 19.7 million to about 22 million. The labour force will reach a level of about 10.9 million. The unemployment rate has already declined to around 7 percent present. There could be some tightening of the labour market conditions with the possible increased demand for labour with the on going expansion of the world economy, aging population in many countries including Sri Lanka, and expected expansion of domestic economy. However, we need to ensure that gain made in employment is sustained and the new entrants to the labour force, projected to be around 2.8 million during the next 10 year, are well prepared to be gainfully employed and their productivity levels raised. Another major challenges will be to eradicating poverty, affecting about 23 percent of the country’s population

Sri Lanka’s economic growth in the past three decades had been moderate and lagged behind the growth rates achieved by the dynamic emerging economies in East Asia In addition, there has been a perpetuation of income disparities, both among income earners and geographic regions. It is clear that in the past the economic growth has largely bypassed the rural areas and concentrated in the Western Province, which now contributes a 51 percent to the national GDP (2004). In the case of income groups, the disparity appears to be even wider. Therefore, Sri Lanka needs a considerable catch-up in growth rate not only to secure its place in the regions as a newly emerging economy, but also to ensure that the country’s economy is capable of providing better livelihood for all citizens, including those who are in abject poverty.

It is encouraging that the country has displayed considerable resilience particularly after the Tsunami shock and the economy has entered on to a higher growth path, registering a GDP growth rate of 6.2 percent in 2005. The high growth momentum has continued further in 2006 with an impressive achievement during the first half of 2006. The progress made needs to be further consolidated. An

acceleration of the growth as envisaged in the ten-year development program will raise Sri Lanka's per capita GNP to Rs.485,000 (US \$ 3,960) by 2016 and elevate Sri Lanka's position as a Middle Income country. As the inflation differences between Sri Lanka and rest of the world is expected to narrow down the purchasing power parity income also expected to reach about US \$ 13,000 by 2016.

Such a substantial leap forward would not only require careful planning and implementation but also favourable external conditions. The planning we now refer to is to make an economy which is largely private sector driven, more dynamic and regionally integrated. The challenge caused by the recent massive rise in world oil prices has had adverse impact on the economy and the country needs to prepare for any further shocks in this area. Sri Lanka has faced the recent challenges reasonably well making the necessary adjustments in petroleum product prices, facing the realities in the world market conditions. The county also has made considerable progress in the post-tsunami recovery and reconstruction efforts while the speed of recovery of some parts in the country has been constrained by the ongoing conflict. The government's endeavours to provide the possible fastest recovery and complete reconstruction are continuing. With the government's reaffirmed commitment to finding a negotiated settlement to the conflict, a progress in this effort will be a welcome development for the benefit of conflict and tsunami affected people in the North and East in addition to the positive impact it will have on the overall growth process. Current growth momentum of the world economy has been a positive factor. The dynamism in the East Asian countries would provide new opportunities as well as a challenge to strengthen our efforts to accelerate economic growth.

Accelerating economic growth needs a significant up scaling of investment and improving overall productivity level. Accordingly, Investment/GDP Ratio is expected to increase to a level of 32 to 38 percent during the next ten years. The National Savings which are currently at a level of about 25 percent of GDP is also expected to improve in parallel with growing incomes. However, there will be a continuing Investment-Savings gap to be financed from external sources, in the form of both official and private foreign capital inflows. Reflecting the increased utilization of foreign resources for major infrastructure projects, the current account deficit will be in the region of 3.5 to 4.5 percent of GDP during the next three years. This ratio is predicted to decline thereafter to around 3 per of GDP. With the growth in export earnings and higher economic growth the external debt indicators are expected to improve over the medium-term.

All three major sectors - Agriculture, Industry and Services are expected to grow at rates faster than those observed during the last five-year period. The targeted average growth rate during 2006 – 2016 is 4-5 percent in Agriculture, Forestry and Fishing. Industry in which include Mining, Quarrying, Manufacturing, Construction, Electricity, Gas and Water growth rate of 8-9 percent is expected while the Services sector is projected to grow by 9-10 percent.

In all sectors, new growth areas are emerging. In the agriculture, the non-traditional products such as fruits and vegetables, poultry livestock, fisheries etc. are expected to make a greater contribution of output and income generation. The support to this sector will continue. In this endeavour, new instruments for rural community empowerment such as "Bim Saviya", an accelerated program to ensure land ownership will be most effective in growth promotion, poverty reduction and social upliftment.

Manufacturing and services industries are also expected to show greater dynamism. The more dynamic industries within these major sectors will be Electricity, Port services, Transport, Telecommunication services, small and medium scale businesses including personal services and many new manufacturing activities, catering to both external and domestic markets.

The sectoral plan for agriculture gives particular emphasis on achieving food security and raising incomes of small farmers. The strategies adopted include, increasing competitiveness through application of modern technology, improved cultural practices and shifting to commercial agriculture. The role

of the Government includes agricultural research and extension, facilitating the supply of quality seed and planting material, assistance to marketing and credit and providing production incentives in the form of subsidies and transfers.

Randora – Infrastructure Investment plan, envisages channelling a larger share of investment to developing the basic infrastructure and other services in the rural areas – electricity supply, telecommunication services, supply of drinking and irrigation water, access roads, agricultural storage, health and education facilities.

The sectoral plan for electricity aims at a substantial expansion and diversification of generation capacity by implementing the long delayed coal power and hydro projects as well as new fuel/LNG based projects, development of renewable energy sources, rationalising the tariff structure and increasing access to electricity by all consumers particularly covering the remote areas. The national, provincial and rural roads improvement program is already underway. Roads in the remote and rural areas are to be developed under *Maga Neguma*, various regional development projects and provincial programmes. Problems related to inadequate and unreliable supply of water for drinking and industrial purposes and the emerging environmental problems related to waste disposal, and water and air pollution are accorded priority. While the public sector play the key role in the development of water and sanitation sector, the community participation in the sector is encouraged.

International competitiveness of Sri Lanka's industry needs to be improved. The sectoral plan for industrial development is guided by the vision of creating a vibrant and internationally competitive industrial sector capable of creating a large number of employment opportunities and supporting a rapid expansion in exports earnings. Industrial policy will place emphasis on assisting the small and medium industry sector, micro enterprises and self-employment ventures as a part of the shared growth strategy. Government interventions will focus on creating a sound incentive structure, including incentives for new investment, facilitating the access to technology and credit, developing skills and entrepreneurship, maintaining standards and performing regulatory functions among others. Among the supportive policies are (a) further improving the macro economic environment, (b) upgrading the public service delivery including improving the efficiency of state owned strategic enterprises, (c) promoting technology and (d) facilitation of private investment in new industrial zones.

Tourism being a sector which has a vast potential for contribution to employment and foreign exchange earnings is expected to make major strides under the plan. The target for tourist arrivals in 2015 is set at 2 million. Plans have been prepared to cater to a large volume of high spending tourists including from the emerging Asian markets. There will also be greater emphasis on developing domestic tourism as well as a further strengthening of the role of the Government in setting standards, providing investment incentives and regulations in this sector.

In the area of social development the plan covers many areas such as education, health, livelihood development and social protection, disaster management, water supply, and development in lagging regions by the priorities indicated in the *Mahinda Chintana*. Here again, the existence of large regional differences in social indicators has necessitated the preparation of a number of region-specific strategies including those for the North and East and the Plantation workers. This approach will give a further impetus to Sri Lanka's satisfactory performance so far in moving towards the Millennium Development Goals (MDG).

A significant enhancement of future growth potential in Sri Lanka also depends on the successful harnessing of the benefits from global integration. Our endeavours in this regard, including through the strengthening of our bilateral and regional trade and investment relationships, will be continued. Sri Lanka's foreign missions abroad will play a more effective role in the promotion of travel and investment relationships in co-ordination with the relevant ministries and agencies.

The subsequent sections of this document present the policy frameworks for the development of various sectors, and geographical regions. The last section presents the broad macro economic framework and perspectives for the next ten years. The detailed projections underlying the broad macro economic indicators presented there in are based on the view that Sri Lanka will steadily strengthen its position as a newly emerging economy through the acceleration of broad based growth covering all regions and segments of the society, exploitation of new areas of growth in Agriculture, Industry, Construction and Services with increased domestic value addition, and providing necessary incentives and support within a consistent policy framework to promote local entrepreneurial skills and initiatives.

The implementation of the development program as indicated in the various sector chapters in this document is expected to improve the structure of the Sri Lanka economy, ensuring sustainable broad based growth in the provinces and an improvement of the living standards in line with the “Mahinda Chintana” Goals.(MCGs)

GROWTH RATES OF GDP BY INDUSTRIAL ORIGIN AT CONSTANT (1998) PRODUCERS' PRICES

Percentage

	2005	2006	2007	2008	2009	2010	2016
Major Division							
Agriculture, Livestock, Forestry and Fishing	1.2	7.7	4.5	4.8	4.9	5.0	5.0
1. Agriculture, Livestock and Forestry	6.5	4.8	4.2	4.8	4.9	4.9	4.9
1.1. Tea	2.2	2.1	2.2	2.1	2.0	1.8	1.1
1.2. Rubber	10.2	8.0	4.5	4.5	4.4	4.4	4.0
1.3. Coconut	0.9	10.2	3.0	2.9	2.7	2.7	2.2
1.4. Minor Agricultural export crops	16.3	4.0	4.2	4.3	4.5	4.5	5.2
1.5. Paddy	23.4	2.5	3.2	3.6	3.8	3.8	4.4
1.6. Livestock	2.3	7.0	7.0	7.5	7.5	7.6	9.5
1.7. Other food crops	4.7	5.6	5.7	6.8	6.9	6.7	6.0
1.7.1. Highland crops	5.2	7.0	7.0	7.5	7.5	7.4	7.1
1.7.2. Vegetables	4.4	4.8	5.0	6.5	6.5	6.2	5.3
1.7.3. Fruits	3.9	4.5	5.0	5.5	6.5	7.0	7.8
1.8. Tobacco	-40.1	1.1	1.1	1.0	1.0	0.8	0.5
1.9. Plantation development	-0.3	4.0	4.1	4.4	4.5	4.6	4.8
1.10. Other Agricultural products	3.4	3.7	4.2	4.7	4.8	5.1	5.5
1.11. Forestry	7.0	1.9	2.2	2.8	3.2	3.8	2.5
2. Fishing	-40.7	55.9	7.2	5.1	5.7	6.4	6.0
2.1. Inland Fishing	-1.0	5.0	5.3	5.5	5.7	5.7	6.0
2.2. Marine Fishing	-45.2	68.7	7.5	5.0	5.7	6.5	6.0
Industry	7.9	7.5	7.9	8.4	8.6	8.6	10.5
3. Mining and Quarrying	17.8	12.3	9.9	10.1	10.4	10.8	14.0
3.1. Precious stones and mining	36.3	16.3	7.7	7.8	6.2	6.2	6.3
3.2. Other Minerals	11.9	10.7	10.8	11.0	12.0	12.5	15.8
4. Manufacturing	6.1	5.9	6.4	6.9	6.9	6.9	8.5
4.1. Processing of plantation and agriculture	0.8	6.1	6.5	7.3	7.1	7.1	7.5
4.2. Factory industry	6.4	6.0	6.5	6.9	6.9	6.9	8.6
4.2.1. Food Beverages & Tobacco	13.5	6.2	6.3	6.7	6.7	6.7	8.0
4.2.2. Textile, Wearing apparel & leather	1.7	5.5	5.5	5.7	5.7	5.7	6.8
4.2.3. Chemicals, Petroleum, Coal, Rubber & Plastic	3.9	8.1	10.0	10.0	10.1	10.2	12.5
4.2.4. Non-Metallic Mineral products except products of Petroleum & Coal	0.8	7.7	8.4	9.2	9.3	9.3	12.0
4.2.5. Fabricated Metal Machinery & equipment	-1.4	3.6	5.5	5.6	5.7	5.7	8.5
4.2.6. Other Industries	-13.5	3.7	5.0	6.5	6.5	6.0	6.5
4.3. Small Industries	5.8	4.0	5.0	6.7	6.7	6.0	7.8
5. Electricity, gas and water	13.9	9.8	10.1	11.7	11.9	10.7	13.6
5.1. Electricity	15.7	10.3	10.5	12.2	12.3	11.0	14.0
5.2. Water	4.3	4.4	5.2	5.4	5.8	6.0	8.0
5.3. Gas	-0.1	7.0	7.5	8.0	9.0	8.0	10.0
6. Construction	9.0	9.8	10.5	10.5	11.0	11.3	12.1
6.1. Housing	8.8	10.0	10.8	11.2	11.4	11.8	12.8
6.2. Other Buildings	9.6	10.0	10.5	11.0	11.0	11.5	12.5
6.3. Roads and Bridges	9.4	9.8	10.5	9.9	10.8	11.3	11.7
6.4. Water supply, drainage and Irrigation	8.3	9.5	9.8	9.7	10.6	10.0	10.9
6.5. Other Construction	9.0	9.0	10.2	9.0	10.5	10.1	10.6
Services	6.7	7.3	8.0	8.5	9.0	9.2	11.5
7. Wholesale and retail trade	6.5	7.5	8.5	8.8	8.9	9.2	9.9
7.1. Import trade	4.2	7.7	9.3	9.3	9.4	9.5	10.5
7.2. Export trade	6.8	7.6	9.0	9.0	9.2	9.5	10.4
7.3. Domestic trade	8.3	7.4	7.5	8.4	8.4	8.8	9.0
8. Hotels and restaurants	-0.1	7.1	9.5	10.0	11.0	11.0	13.5
9. Transport and communication	9.7	7.6	7.8	8.0	8.5	8.8	11.6
9.1. Transport	6.6	7.0	7.0	7.0	7.0	7.2	7.6
9.1.1. Railway- Passenger & Goods	-3.8	4.5	6.0	7.5	7.5	7.6	8.0
9.1.3. Other passenger & Goods	6.7	7.0	7.0	7.0	7.0	7.2	7.6
9.2. Cargo Storage & Warehousing	25.2	9.7	11.2	11.5	12.0	12.0	14.5
9.3. Post and telecommunication	73.5	14.0	15.0	16.0	20.0	20.0	25.0
10. Banking, insurance and real estate	8.7	8.3	9.4	10.6	11.6	11.6	13.4
10.1. Banking, insurance and real estate excluding Information Technology.	7.0	7.5	8.5	9.5	10.4	10.2	12.0
10.2. Information Technology (+BPO)	27.0	20.0	22.0	24.0	25.0	25.0	20.0
11. Ownership of dwellings	1.5	2.0	2.1	2.2	2.2	2.2	4.0
12. Government services	5.4	5.5	5.8	6.0	6.5	6.5	7.0
13. Private services	4.3	12.2	12.6	13.2	15.0	16.3	23.0
Gross Domestic Product	6.2	7.4	7.5	8.0	8.3	8.5	10.6

Source : Census and Statistics Department

1. Transforming Agriculture for Economic Prosperity and Poverty Reduction

1.1 Introduction

As in many other countries, the development of the industrial and service sectors in Sri Lanka has been accompanied by a reduction in the contribution of agriculture to Gross Domestic Product (GDP). The contribution of the agriculture sector to GDP from 1995 to 2005 was around 18.6 percent, which indicates a 15 percent decline over the period 1985 to 1995; in fact there has been a continuous decline in the late 1970s. The contribution from agriculture sector to GDP at present stands at 17.2 percent. The contribution from the agriculture sector to employment has also decreased from 36.8 percent in 1995 to 30.7 percent in 2005.

Even though the contribution from agriculture sector to GDP has halved in the last two decades, agriculture still plays a vital role in Sri Lanka's economic development. This sector was the third highest contributor during the last decade and the second highest contributor to employment, and was at 30.7 percent in 2005. It is the main source of livelihood of the rural population, which accounts for 70 percent of the total population. Therefore, the agriculture sector will remain as the largest in absolute terms, and must be strengthened to attain higher growth rates and to play a dynamic role in the overall economic development of the country.

The average growth of the agriculture sector during the last four years was 1.2 percent compared with 5 percent in industry and 7 percent in services. Even though its relative position in the economy has been declining with the growth of industries and services, because of its strong linkages with other sectors, agriculture continues to be the main element of Sri Lanka's economy. Therefore, the agriculture sector is a significant determinant of national and provincial GDP.

The ten-year development programme envisages that the agriculture sector will grow at a faster rate of 4-5 percent with a higher contribution coming from the non-plantation sector, such as other food crops (non paddy), fruits and vegetables, fisheries and livestock. Commercial orientation of the small and medium scale operations in these sectors is expected to improve with continued support and facilities to this sector, including improved access to bank credit.

The agriculture sector will grow in absolute terms generating income in the rural sector thereby partly contributing to rural poverty reduction. Concomitantly employment opportunities in the non-agriculture sectors namely industry and services will grow faster than the agriculture sector, which will result in the falling of the share of agriculture employment to about 20 per cent from the current 30 per cent of the labour force. The growth opportunities in the non-agriculture sector, which could absorb some of the freed farm labour, will contribute to rural poverty reduction. The agriculture sector will be made more efficient to increase the return to labour, which will also contribute to reducing rural poverty. The pro-poor and pro-growth income improvement and redistribution policies with complementary participation of a socially responsible private sector and strong public sector are the focuses of the economic development process. The investment plan for the agriculture sector will include these objectives.

Paddy dominates non-plantation agriculture. It covers around 938,000 hectares or approximately 47 percent of the total area under agriculture. It employs about half of the total agriculture labour force. The domestic rice requirement, which is now being met from local production, has been increased to 98 percent in 2005 from 89 percent in 2004.

Tea, rubber and coconut are the major plantation crops and this sector accounts for 4.9 percent of GDP, 15.7 percent of export earnings, and employs 18 percent of the labour force and contributes 27 percent to agricultural GDP. Tea covers 190,177 hectares, with small holders accounting for about 49 percent of the total area and 65 percent of the national production. Rubber covers 116,471 hectares and 43 percent of this is owned by small holders. The Rubber industry has recorded a total production of 104,352 mt in 2005 with productivity of 1171 kg/ha. Over 2000 persons are employed in the rubber industry and over 30,000 are employed in the rubber-based industries. About 70 percent of the total rubber production is locally consumed by the value adding industries. Coconut covers around 390,000 hectares of which 80 percent is holdings of less than 8 hectares each.

Pepper, cinnamon, cardamom, cloves and nutmeg and mace, essential oils and beverage crops such as coffee and cocoa also make a significant contribution to exports. Over 50 percent of the production of these crops is exported. These crops play an important role in an economy in earning foreign exchange. The total land area under these export crops has been growing fast and by 2009 would reach 90,332 ha.

The **fisheries** sector is an important component of the economy and employs over 150,000 fishermen, with a further 100,000 engaged in fishery related activities such as fish processing, marketing, boat building, net manufacturing etc. Its estimated contribution to GDP is around 3 percent, up from around 2 percent in 1988. About 65-70 percent of the animal protein intake consumed by the population is supplied by fish products.

The **livestock** sector accounts for about 1.2 percent of the total GDP and 5.6 percent of agriculture share in GDP. The role of livestock in the agriculture sector in Sri Lanka is multifaceted. In 2005, 20 percent of the total milk requirement of the country was supplied by the local livestock industry. It has been planned to increase this contribution to 30 percent in 2010 and to 50 percent in 2015.

The **forestry** sector plays an important role in contributing to various other sectors such as the agriculture, industries, energy, tourism, and household sectors. It helps to conserve soil and water resources for agriculture, to supply bio energy, and to enhance hydropower generation capacities by conserving catchments areas. This sector also generates timber and wood products for both industries and households, and provides places for outdoor recreation with aesthetic value, for tourism.

Government's strategy in agriculture is based on the need to be competitive in production and marketing by increasing productivity, lowering production costs and adding value to raw materials. Raising the rate of growth in agriculture (including crops, livestock, fisheries and forestry) can make an important contribution to rural poverty reduction.

Government is committed to developing a market-oriented pricing and incentive environment for the agriculture sector. Direct involvement in the commodity market will be gradually reduced, and by 2009, agriculture trade policy will become more stable and transparent for the main food commodities. The high rates of specific duties used to protect strategic agricultural commodities will be replaced by a duty of about 60 percent for the main strategic foodstuffs. Tariffs will remain at these levels for some time to provide greater certainty to farmers, processors and traders. Fertilizer subsidies will be streamlined and efforts made to improve the targeting of these subsidies.

Frequent reorganizations and a lack of focus within the agricultural research and extension services appear to have substantially compromised the nation's capacity to include technological innovation in agriculture. Government will substantially increase the supply of improved technology suitable for small

farmers through a more diverse and intensive programme of adaptive research based largely on borrowed technology.

1.2 Vision for the Agriculture Sector

The Ten Year Development Plan for agriculture sector seeks to achieve the following vision consistent with the Mahinda Chintanaya.

An agriculture sector contributing to regionally equitable economic growth, rural livelihood improvement, and food security through efficient production of commodities for consumption, for agro-based industries and for exporting competitively to the world market

1.3 Policy Framework

The policy thrust is to transform the subsistence agriculture to a commercially oriented and highly productive sector bridging gaps.

1.3.1 Overall Policy

Within the liberal economic environment, agriculture policy will be directed towards transforming traditional subsistence agriculture (including livestock and fisheries) to one which maximizes productivity. Increasing the productivity of tree crop/export agriculture to become more competitive in the international market has been identified as an important strategy in the policy. By doing this it is expected to create an exportable surplus or import substitution products and thereby strengthen the balance of payments situation in the country, while providing higher incomes to those who are engaged such cultivation. The government has also given priority to improving processing, marketing and down streaming activities to increase value addition to agricultural products, providing more employment opportunities in rural areas, and thereby reducing urban migration. The goals of the agriculture policy are to achieve sustainable earnings, food security and higher incomes for those dependent on this sector, reduce the cost of living of the population as a whole, and provide an adequate diet at an affordable price for the poor. The Government places high priority on achieving a broad based-shift from low- value to high-value agriculture, accompanied by sustained improvements in productivity and competitiveness, which will launch the agriculture sector into a significantly higher growth trajectory.

Sri Lanka's non-plantation sector also referred to as a domestic food production sector has recovered its momentum of growth during the past few years. **Rice** accounts for approximately ¼ of the consumer goods basket, about 1/3 of the total grain consumption and nearly 50 percent of the calorie intake in the country. The Government policy to promote rice production consists three key elements, i.e., a guaranteed price scheme, fertilizer subsidy, and concessionary bank credits. In addition, the Government has continued facilitating the paddy-purchasing programme by means of a special credit arrangement made through the Divisional Secretaries.

Apart from direct production and price supports, the paddy sector has continued to be the beneficiary of state sponsored research and extension services and free irrigation facilities. With the aim of establishing sustainable and reasonable marketing and selling network to protect producers as well as consumers, the **Sri Lanka Agricultural Products Marketing Authority** was set up by the Government. This Authority is expected to ensure incentives for the farming community as set out in the policy document, while maintaining a buffer stock to fulfill the government needs and to meet consumption need during unexpected disaster situations. This Authority will eventually minimize the government intervention and financial commitment on the annual paddy-purchasing programme. A specific duty of Rs. 20 per kg was imposed on rice imports to help and protect local producers.

With the emphasis on the promotion of the domestic food production, most of the **subsidiary food crops** have also benefited from government investment on irrigation schemes, subsidized inputs, concessionary bank credits and tariff protection/import restrictions aimed at maintaining domestic market prices above competitive world prices. The imposition of Rs. 20 per kg, Rs. 30 per kg, and Rs. 20 per kg on onion, chillie, and potato has resulted in a price advantage for the local farmers. Therefore, while maintaining the tariff for food crops at the highest band, it is necessary to support competitiveness of these crops through improved seeds extension and research credit and agricultural infrastructure.

A comprehensive **seed and planting material** production programme will be implemented over the next five years for seed paddy, seed potatoes, and vegetable seeds produced both by the Department of Agriculture and the private sector. In the seed paddy sector it is expected to increase the availability of certified seed paddy from around 5 percent of the requirement at present, to 25 percent by the year 2009.

With a view to efficient management of public sector plantations, government set up 23 Regional Plantation Companies in 1992 to undertake the management of the **tea and rubber** estates, which come under the government owned Janatha Estate Development Board and Sri Lanka State Plantation Corporation, marketing the beginning of a new era in the plantation industry. The objective of restructuring the plantation sector was to induce local and foreign private sector participation. Initially management, along with long term leasehold rights, were divested to the private sector. Thereafter the majority stakes of each Regional Plantation Company were divested in order to realize their full potential. Most of these companies now have been listed on the Colombo Stock Exchange. The need to obtain Hazard Analysis and Critical Control Point (HACCP) certification to ensure maintenance of good hygienic and processing standards at every level in the manufacturing process enabling tea exports to the EU countries has been recognized.

The practice of state intervention in the determination of labour wages was replaced by a Collective Agreement negotiated between employees and employers. This was a forward step in the direction of facilitating the process of creating a healthy and productive environment for developing a shared responsibility between the workers and the management in the estate sector.

The importance of the **tree crop** sector in the national economy and its future prospects depend on our competitiveness in the international market. It is therefore necessary to improve the productivity of the plantation sector through research and reduce the cost of production. In order to do this, it is necessary to undertake replanting programmes annually to replace at least 2 to 3 percent of the extent under each crop. Plantation companies are expected to move away from their preoccupation with the commodity market and focus on the consumer market.

The government policy in the **livestock** sector is to encourage the private sector to engage in commercial livestock operations. Public sector investment will gradually be directed to regulatory activities and to the areas where returns on investment are not attractive to the private sector but are essential to the development of the industry e.g. research, extension, preventive programmes through disease surveillance, disease monitoring, vaccination, disease investigation and animal quarantine.

The **dairy** sub sector which is lagging behind the other sub sectors such as poultry and swine will receive increased emphasis in the public investment programme. Facilitating private sector activities for dairy development, similar to those observed in poultry and swine sectors, will be an element in the government strategy for dairy development.

The goal of the **livestock** sector is to become more self-reliant in milk, improve animal nutrition and health and promote self-employment. At present domestic milk production meets only 20 percent of the consumer demand in the country. It is expected to increase this level to 25 percent at the end of this period. To achieve this target the feasible option in the short-run is to increase the productivity of the domestic cattle and buffalo herds and expand the opportunity for milk marketing in the rural areas. The number of milking animals in a given time is also an important determinant in increasing domestic milk production. The livestock-breeding project implemented with assistance from the National Dairy Development Board in India will therefore focus on improving the supply of quality cattle and buffalo semen for Artificial Insemination (AI) services in the country.

The **livestock** sector offers significant opportunities for increasing income generation in rural areas. The development of the skills and capabilities of livestock farmers and other personnel for the livestock industry is also given strong emphasis in the government's future development programme. Solving current industry problems such as environmental impacts of livestock production, accreditation of private laboratories for disease investigations as well as certification of livestock produce, leasing of estate infrastructure for private investment in animal disease diagnosis and vaccine production are some of the other measures that will be undertaken by government in the future for facilitating the livestock sector development.

The **fisheries** development policy is aimed at exploiting the country's aquatic resources in a sustainable manner, while conserving the coastal environment. The diversification of production and exploitation of off-shore deep-sea fisheries through the introduction of modern technology and efficient fishing methods will be given priority. It is also planned to reduce pressure on coastal resources through the implementation of a fisheries management programme. Government investment will also provide appropriate infrastructure such as harbour, shore facilities, and marketing facilities.

In the **sugar** sector, the main policy issue has been the need to ensure a reasonable price for locally produced sugar. The demand for higher prices for cane sugar from farmers, relatively low yields, low sugar recovery rate, and an absence of factory expansion have resulted in a higher cost of production eroding the financial viability of the industry, and compulsion on government to intervene in order to maintain socio-economic stability in the area.

With the intention of injecting much-needed working capital, the Government will include poultry, aquaculture, and sugar sectors in the present Non-Comprehensive Rural Credit Scheme (NCRCS) implemented by the Central Bank of Sri Lanka.

Cashew has become a cash crop that growers are interested to cultivate due to the high sales prices of cashew nuts and the value added of its by-products. The total extent under cashew cultivation at present in Sri Lanka is about 32,870 ha, producing a total of around 8600 mt of nuts. The average annual kernel production is about 1200 mt. of which over 1000 mt. are locally consumed, leaving only a small quantity of about 150mt. for exports. The major buyers of Sri Lanka's Cashew are the Middle East countries. Besides, Sri Lanka cashew has a growing demand from Canada, USA, Germany, France, United Kingdom, Israel, and Japan.

In order to revitalize the industry as a whole, it is planned to increase the present extent under cashew and the crop productivity on a sustainable basis. Product diversification and value addition are also two important aspects that have been paid attention in promoting the industry.

Cashew is a crop that has the potential to sustain profitable livelihoods and income earning and to provide meaningful employment to a large section of the farming community, especially in the poorer,

Dry Zone areas of the country. However, cashew's potential is still to be fully exploited by our farmers to get the maximum socio-economic and commercial benefits.

There is a pressing need to improve the welfare of the farming community in the country, and to provide employment and greater opportunities for income generation. Increasing the yield from the present average of 350 kg per ha to 650 kg per ha by 2009 for the **cashew** industry are of paramount importance in fully utilizing the cashew industry to contribute to local growth, poverty reduction and the national development effort.

Palmyrah has been identified as a livelihood support and poverty reduction source having an extent of 60,650 ha equivalent with 11 million palms while sustaining the Palmyrah resources and its environment. Among the strategies proposed, organizing community based awareness programmes to reduce the felling of Palmyrah trees is vital. Further, developing private nurseries and allowing replanting or new planting through community participation has been identified as a production enhancement policy. Palmyrah based products such as fruit, fibre, leaf, timber, and tuber need to be popularized through promotional mechanisms.

With the great impetus created by the positive policies and the new confidence, the private sector is now geared to reach the goal of self-sufficiency in **fruits and vegetables** by 2010. The private sector will be encouraged to establish Sri Lanka's most modern cold chain network to handle fresh fruits and vegetables to minimize post harvest losses from 40 percent to 5 percent and also to upgrade the quality by introducing new techniques, new varieties of seed, and educate the farmers with the latest trends. The industry expects further to promote export of fruit and vegetables, flowers, cut flowers, foliage live fish, poultry products to most parts of the world including India in 2006/07. The special feature in this sector is the fact that 80 percent of the revenue earned will reach the rural masses in the least developed provinces of the country.

The private sector is expected to quintuple the volume and earnings from the export of **fruits and vegetables** by 2005. The current export volume is 25,000 MT for fruits and vegetables, earning about Rs 1,500 million annually.

Sri Lanka at present accounts for around 55 percent of the in Maldives **fruits and vegetables** market and opportunities exists to increase the market share by penetrating into the Indian slice of the pie. The total fruits and vegetable exports to Maldives is expected to reach US\$ 40 million and US\$ 50 million in the year 2006 and 2007 respectively. The related increase in employment will penetrate all support industries and will parallel the expansion projected increased land usage. The requirement for labour will go up and the majority of this employment will be from the rural/outlying areas.

Sri Lanka is sitting on a treasure chest, enabling it to assuming a lead role in **tropical floriculture**. There is a high demand for tropical floricultural products from European, Japanese, and Middle-East markets. The unique geographical position of our country in relation to the main sea and air routes enables us to service each of these markets to competitively.

1.3.2 Sectoral Policy

1.3.2.1 Non Plantation Agriculture

- **Achieving food security** is one of the prime objectives of the investment plan. Promotion of competitive import substitution through the provision of adequate incentives to the food crops sector without resorting to excessively heavy protection or an unduly liberal import policy would be the main strategy to achieve this objective. Therefore, the policy regime will be proactive to provide

market incentives to have a commercially viable food crops sector. However, some selected food crops are identified as special products, which will have access to special safeguard mechanisms if import surges are harmful to sectoral growth and poverty reduction.

- **Productivity Enhancement** is essential in the agriculture sector to improve its competitiveness. Low productivity, inadequate value addition and poor quality of products are mainly observed among the rural poor farmers. The main policies proposed include promoting high-tech agriculture through investment assistances, regulatory measures for quality inputs (seeds and fertilizer) and eco-regionally focused technology generation; providing legal instruments to control adoption of unhygienic production and processing methods in primary and value added products; and recognizing the need for a quality assurance mechanism that could meet international food safety standards and other quality parameters for crops with export potential.
- **Facilitating marketing and related infrastructure** is needed for transforming subsistence agriculture to commercially viable ventures. Both local marketing and international trading has to be promoted. The government emphasizes the rural infrastructure development through its regional development projects. It also recognizes the explicit need for international trade promotion and trade facilitation such as branding for primary and value added commodities with export potential; promoting and strengthening farmer relief programmes that strengthen trader-farmer contracts which in turn improves the bargaining power of farmers, particularly poor farmers; recognizing need-based government intervention and establishing policies to maintain market competition.
- **Adopting stable trade policies** is essential for the growth of both domestic and export agriculture sectors as Sri Lanka is highly liberalized and closely linked with the international markets. There are a number of impediments in the rural sector which prevent securing expected benefits from liberalization especially for the poor. The required resource mobility including labour from agriculture to industry and service sectors is limited due to many structural and human capital factors. It is unlikely that liberalized trade policies alone will facilitate mobilization and allocation of the poor farmers' resources in economically advantageous sectors. Therefore, a liberal trade regime is to be supported by adequate safeguard measures to provide a stable trade policy regime. Trade policies conducive to local conditions will be adopted to avoid any uncertainty in the market and to promote investor confidence.
- **Providing rural financing** is a key to the rural agriculture transformation process, but generally it hardly reaches the poor. It is thus recognized that farmer-friendly credit policies and government sponsored refinancing schemes are essential rural financing services. Promoting and strengthening agricultural insurance facilities and promoting out-reach programmes of banks for agricultural lending is recognized as the policy. In this effort, initiatives have been taken to extend the NCRCS scheme to cover poultry, aquaculture, and sugar and the upper limit of the scheme has been increased.
- **High post harvest losses** reduce contribution of agriculture to economic growth. They also pose a threat to income of farmers in rice, and fruit and vegetables amounting to 10–15 percent, and 30–40 percent respectively. Colossal losses in fruits and vegetables occur mainly due to the use of improper post harvest techniques such as harvesting at incorrect stages of maturity, inadequate cleaning and sorting and improper packaging during handling and transportation. The loss in these commodities during transportation alone has been estimated at approximately 30 percent of the total production. Minimizing post harvest losses by introducing improved technologies would not only lead to a substantial increase in the incomes of the farmers but also contribute to GDP while assuring safety and quality of foods available for domestic consumption and export. Introduction of improved post harvest technologies and management practices for agricultural commodities will help minimize production cost and improve product quality.

- **Enhancing agricultural research:** Agricultural research is performed by many state institutions with appreciable results. The paddy sector and certain vegetables are key beneficiaries. Other sectors including export agricultural crops (other than Tea, Rubber and Coconut) have not so benefited. The involvement of the private sector in research and dissemination is grossly inadequate. Outdated property rights systems hinder private sector investment in research. Enhancing allocation of budgetary and human resources on dynamic agricultural research systems; strengthening agricultural research and adequately focusing on livelihood improvement, rural development, food security, improving agro-based industries, initiating commercial agriculture and preparing the sector to face global challenges; and recognizing the importance of the private sector investment in agriculture research and development are the policies in this area.

Agriculture Food and Nutrition Security Strategy

Ensuring food and nutrition security has emerged as one of the priority requirements in improving the living standards of the population. A majority of the Sri Lankan population lives in rural areas and a significant number of them do not have access to nutritionally adequate and safe food. Even if sufficient food is available at the national level, household level food security will not be guaranteed if some households are unable to obtain their basic food requirements. It has also been revealed that food access, affordability and utilization in the rural sector are generally poor. Inadequate knowledge of nutritional values, low-income levels, post harvest losses, issues in preservation and storage have probably aggravated this situation.

Rice is the staple food in Sri Lanka, with most of its requirement being met from domestic production. Wheat flour is an important ingredient particularly in the estate sector and the all wheat flour needs are imported. The production of certain food crops, fruits and vegetables, sugar, fish and milk do not adequately contribute to the nutritional/consumption requirements leading to food insecurity. In this context, efforts to encourage rice based products to substitute for wheat flour also needs improvement.

The Twin Track approach of the Food and Nutrition Security Strategy are to strengthen the productivity and production in agriculture, as well as improve access to food for the poor households.

The approach entails broadly three strategies of sustained agricultural growth, socio-economic development and environmental sustainability. Enhancing crop, livestock, fisheries, production and productivity are the major components of sustained agricultural growth which will lead to an increase in incomes of farmers and rural households. This will be achieved by diversifying the economic base, expanding local and export markets, strengthening production services and enhancing capacity building of the public and private sector. Addressing the immediate problems of food insecurity amongst the most vulnerable households, improving community development, expanding employment opportunities for both on and off farm sectors, increased involvement of local population in resource mobilization, maintenance and management are the elements of socio-economic development which will be addressed.. The environmentally sustainable strategies will concentrate on conserving natural resources through improved land use and increased involvement of the local population in natural resources management.

An action plan including a variety of programmes in household and commercial food production, support services and rural infrastructure, natural resources management and integrated participatory activities will be formulated and implemented to achieve the objectives of food availability, access and utilization.

- **Technology dissemination** through extension services is a follow-up of technology generation. With adequate budgetary and human resources investment in extension, recognizing the need for redesigning and strengthening existing extension approaches to serve all farmers including the poor, active farmer participation in extension and involvement of community based organizations as partners in agricultural extension are the policy tools that are recommended for the future.
- **Participation of Community Based Organizations (CBOs)**, farmer organizations and the private sector as partners in agriculture development is recognized as essential for equity-based development. Technical departments will be partners in facilitating and directing CBOs. Pradeshiya Sabhas will be linked with CBOs for rural agriculture development.
- **Minimizing environmental degradation** for sustainable agricultural development needs government intervention to address market failures that lead to environmental degradation. This will be achieved through developing adequate institutional and infrastructure capacity for effective implementation of laws and regulations to ensure proper environmental management; recognizing the need to manage pesticides conforming to the “FAO International Code of Conduct on the Distribution and Use” to minimize potential health and environmental risks while assuring the effectiveness of pesticides; preventing the entry and spread of foreign pests and diseases; and promoting ecological principles such as Integrated Pest Management, Integrated Plant Nutrient Management, and Good Agricultural Practices (GAP) in agricultural production.
- **Utilizing and sharing plant genetic resources** is required to develop and maintain diverse farming systems with diversity in the genetic base. Promoting plant breeding efforts with farmer participation, protecting and promoting Farmers’ Rights relating to traditional knowledge, equitably sharing benefits with farmers, and accessing/exchanging benefit sharing systems of plant genetic resources with other countries are the policies adopted for the purpose.
- **Enhanced youth involvement** in agriculture is necessary to modern agriculture practices, management, and technology. With a view to attracting youth, agricultural entrepreneurship will be promoted through youth vocational training programmes. Encouraging scientific farming with modern technology makes agriculture both intellectually stimulating and economically rewarding. Agro-based small and medium scale industries will be promoted for rural employment generation.
- **Ensuring seed and planting material production** is given a high priority. This is achieved through the provision of foundation and basic seeds and planting materials by the public sector; promoting farmers and the private sector in producing seeds and planting material in a competitive environment with public sector certification; ensuring seed security by having a buffer stock of certified seeds; and applying quarantine regulations when importing seeds.
- **Encouraging culturally, nutritionally and traditionally important heritage food crops** is necessary to maintain bio-diversity. Technical crop recommendations will stress on such crops and also their consumption will be encouraged.
- **Enhancing the agricultural export base** is essential for transforming agriculture. Ensuring government support in expanding all forms of agriculture based exports and value added products, and coordination between agriculture and trade strategies to create synergy are adopted for the purpose.
- **Transforming the current net importer status** of foods such as vegetable, dairy, sugar, fish, and poultry to net exporter status.

1.3.2.2 Plantation Sector

Sri Lanka's plantation sector contributes 22 percent to agricultural production. Although there have been a decline in the areas under tea, rubber and coconut cultivation during the last decade, the production and export of these crops have increased.

The major focus in the development of large plantations is to move away from the commodity market to the consumer market. Appropriate strategies will be formulated with donor assistance and collective efforts made to build competencies within the management of these companies to successfully exploit the untapped potential of the available resources while consolidating the strengths already built in the global market. Development of skills and knowledge within the companies through innovative approaches in management will be the key elements in the proposed strategy.

- Greater private sector participation will be encouraged in the various research and development institutions in the tree crops sector, namely the Tea Research Institute (TRI), Sri Lanka Tea Board (SLTB), Tea Small Holdings Development Authority (TSHDA) and the National Institute of Plantation Management (NIPM).
- The export strategy for the tea industry would be promoting value addition to maintain its leadership in global tea exports.
- The use of branding and marketing and becoming a preferred buyer destination are some of the strategies that are being adopted to re-position Sri Lankan teas as the "best in class" source for export markets. Building brand recognition and operating joint marketing companies are some of the initiatives proposed for re-positioning Sri Lanka's tea exports.
- Promotional assistance will be continued to develop Sri Lankan owned tea brands in export markets. Labeling regulations for pack design requirements, especially for brands claiming "Pure Ceylon Tea" will be promulgated.
- The Regional Plantation Companies will be encouraged in the commercial production of high value fruits, vegetables, spices, organic herbs, medicinal plants, and other agribusiness ventures in underutilized estate lands.
- Value added rubber products such as solid tyres, bicycle tyres and tubes, shoes and gloves etc, would be expanded further in order to sustain their profitability in the sector.
- In order to create a more conducive environment to increase value addition, the natural rubber production has to be increased through productivity improvements in the short-term and through increased rubber extent in the long-term. It is expected to add 40,000 ha of new rubber extent during the period 2007 to 2016 under the Regional Plantation Companies, and in Moneragala, Hambantota, and traditional areas. The natural rubber production in 2005 was 104,000 mt and the projection of 2007 would be 112,500 mt. It is expected to increase the production up to 180,000 mt in 2016.
- It is envisaged to increase the present national coconut production of about 2500 million nuts per year to 3000 million nuts per year by 2006 and thereafter increase the production and productivity at an incremental rate of 5 percent per year.
- In order to increase production, the programmes identified have been integrated extension and participatory technology transfer. Increasing coconut production and productivity scientifically, for processing/export and encouraging new coconut planting in non-traditional areas, such as the Mahaweli region and major irrigation area.
- Promoting coconut based small/medium industries for value addition to fibre, timber and milk; to DC and fiber products for export; and to coconut oil and copra for import substitution and animal feed.

- Human Resource Development will be undertaken to train all levels of estate staff i.e. estate managers, middle level officers and estate workers.
- A Plantation Development Fund will be set up to provide better opportunities for long-term investment in the sector.
- Allowing private tea estates to utilize cess funds to accelerate the pace of technological change, and research on tea product development and process improvement:
- Incentive structure for replanting and new planting of coconut will be further intensified.
- Integrating health and education services provided to the estates in to the national systems and developing the physical and social infrastructure serving them to uplift their social status.

1.3.2.3 Livestock Sector

The main policy goal of the sector is for livestock farmers to achieve sustained and equitable economic and social benefits and to increase the domestic livestock products at competitive prices. These would be achieved through specific policies for the dairy, poultry and the meat sub-sectors.

The dairy sector takes priority in livestock development. Promoting liquid milk production in regions in non-traditional areas is emphasized. Quality improvement of dairy herd will be achieved through upgrading the native herd with private sector investments. Import and fiscal policy on dairy products will focus on improving the competitiveness of the sector. The Market forces will govern the pricing mechanism with minimum state intervention. The value addition of every aspect of the dairy industry will be encouraged. In 2005, 20 percent of the total milk requirement of the country was supplied locally. It is expected to reach 30 percent and 50 percent of the local requirement by 2010 and 2015 respectively.

Poultry sector development will be encouraged through private investment. The role of the public sector will be limited to regulatory functions for animal disease management and quality assurance of inputs and outputs.

In the meat sub-sector, public investment will be limited to the provision of appropriate germplasm for meat breeds for livestock species. However, private sector activities on meat production will be encouraged.

According to the WHO standards per capita consumption of eggs and chicken should be 100 and 10 kg whereas in Sri Lanka the corresponding figures stand at 54 and 4.5 kg. The Government will provide fiscal incentives to the poultry sector to be on par with per capita consumption levels prescribed by WHO standards. Steps have also been initiated to include the poultry sector into the NCRCS loan scheme to facilitate poultry industry activities.

The Government will provide the necessary resources for biological research, technological research and product development in the livestock sector.

1.4 Development Targets

During the plan period, the agriculture sector as a whole will grow at an annual rate of over 5 percent. This growth will result from a combination of an increase in the extent of production and improvement of the productivity of all three sub-sectors. Growth rates of the extent and of the productivity that are required to achieve the overall rate of 5 percent growth by the individual sub-sectors are summarized in Table 1.

Table 1: Growth Rates of the Extents and Productivity

Agriculture Sub-sector	Rate of increase for the 10-year period	
	Extent (%)	Productivity (%)
Non plantation crop sector		
- Paddy (old command area of tanks)	0.1	10.0
- Field crops, vegetable, fruits & other	0.8	25.0
- Export agricultural crops	3.0	30.0
Livestock	2.0	5.0
Plantation sector		
- Tea	0.1	20.0
- Rubber	2.0	5.0
- Coconut	5.0	20.0

On the basis of these growth rates, the medium (3 years) and long term (10 years) expansion targets for the sub-sectors, which are new areas, are presented in Table 2 and productivity improvement targets, which are the existing areas, are presented in Table 3.

Table 2: Estimated expansion of agriculture sub-sectors

Agriculture Sub-sector	Targeted extent to be newly cultivated (ha)	
	Medium-term 2007-2009	Long-term 2010-2016
Non plantation crop sector		
- Paddy (old command area of tanks)	4,000	10,000
- Field crops, vegetable, fruits & other	11,340	32,080
- Export agricultural crops	12,550	38,400
Plantation sector		
- Tea	800	2,300
- Rubber	9,500	2800
- Coconut	6,000	14000

Table 3: Estimated extent for productivity improvement of agriculture sub-sectors

Agriculture Sub-sector	Targeted extent of productivity improvement (ha)	
	Medium-term 2007-2009	Long-term 2010-2016
Non plantation crop sector		
- Paddy	277,000	649,000
- Field crops, vegetable, fruits & other	269,000	653,271
- Export agricultural crops	98,300	266,487
Plantation sector		
- Tea	126,700	297,237
- Rubber	18,300	47,327
- Coconut	12000	28000

1.5 Strategies for Achieving Development Targets

The policy framework will steer the development process of the agriculture sector to achieve the stated objectives. The main strategies to implement the policies are five fold. These are common for all three sub-sectors.

- Transforming low productive subsistence farming to high productive advanced agriculture including agro-based industries;
- Increasing productivity, production and competitiveness of the export based agriculture sectors including plantations;
- Increasing return to labour, land and other factors of production in the agriculture sector which would directly contribute to rural poverty reduction;
- Enhancing agricultural productive efficiency through mechanization and technological transformation whereby agriculture labour could be released for off-farm employment as an improved livelihood strategy; and
- Developing market mechanisms and introducing favorable trade rules

1.6 Investment Plan and Financing Needs – Non-Plantation Sector

The investment plan estimates the short term and long term funding requirement for the interventions according to the crops. The interventions are grouped in smaller units for simplicity and listed in Table 4 with the investment estimates.

Table 4: Fund Allocation for Interventions (Rs mn)

Key Activities	2007-2009	2010-2016	Total	% of Share
CBO formation & mobilization	635	2,064	2,699	1.7%
Rural Credit & Financing	6,770	27,355	34,125	21.9%
Extension & Education	1,609	4,390	6,000	3.9%
Human Resource Development	1,500	3,500	5,000	3.2%
Food & Nutrition Security	500	1,500	2,000	1.3%
Marketing Facilitation	2,582	19,665	22,247	15.6%
Bio and Soil Research	4,380	14,821	19,201	12.5%
Seed & Planting Material Production	1,971	3,080	5,051	4.1%
Assistance on fertilizer	14,302	36,447	50,749	33.4%
Technology Research	872	2,038	2,911	1.9%
Total Investment	35,121	116,360	151,981	100.0%

The total funding for the ten-year period is Rs 152 billion. Investment allocations for different sectors according to the investment period are summarized in Table 5. A larger share of investment is allocated for activities which benefit all sectors. Investment funds are already available for the sector through government and donor funding. The available amount has been estimated for the period 2007 to 2012. This is inadequate to meet the required funds as shown in Table 6.

Table 5: Medium and Long Term Investment Plan by Crop Sectors (Rs mn)

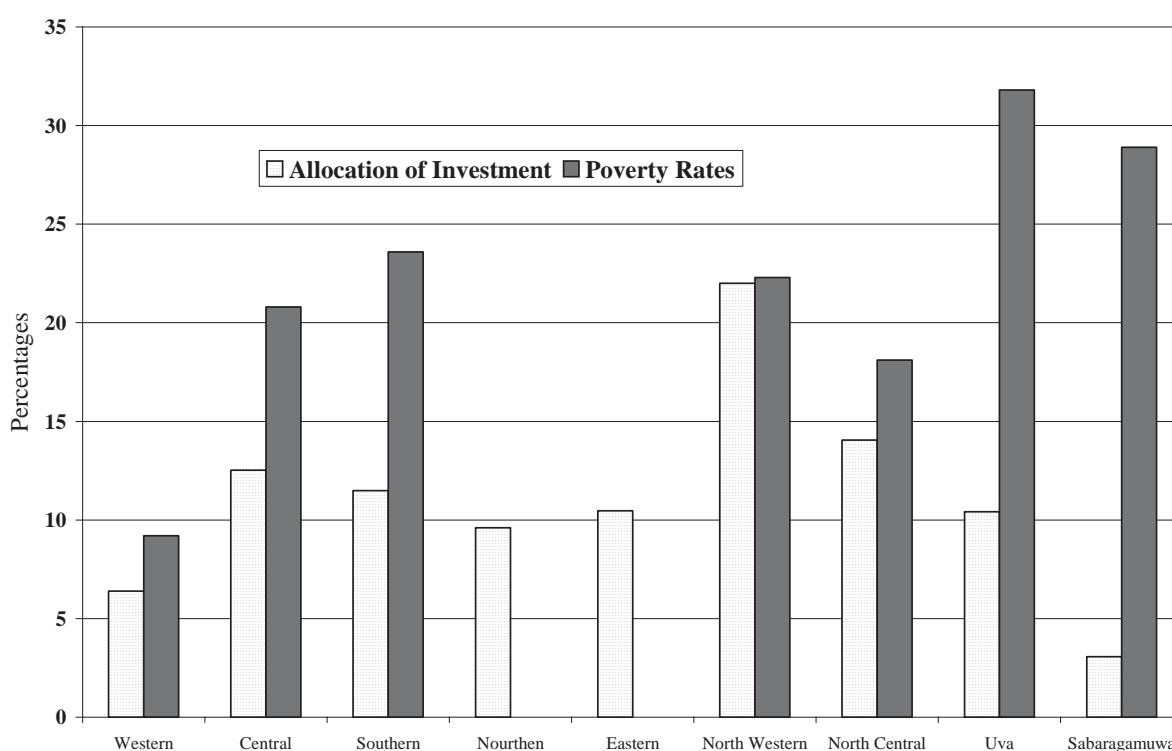
Sector	2007-09	2010-16	Total	% Share
All	30,522	99,321	129,843	85.5%
Export Agriculture Crops	2,379	5,771	8,150	5.4%
Livestock	1,437	4,499	5,936	3.8%
Other Food Crops	719	3,683	4,402	2.9%
Paddy	564	3,086	3,650	2.4%
Grand Total	35,121	116,360	151,981	100.0%

1.7 Poverty and the Investment Plan

1.7.1 Allocation of funds for agricultural Investment

The objective of poverty reduction should ideally be addressed by allocating funds on a regionally equitable basis. Investment distribution in provinces and provincial poverty rates are shown in Figure 1 to show the regional equity.

Figure 1: Poverty Rates and Provincial Distribution of Funds in the Investment Plan – Domestic Agriculture and Livestock Sectors (%)



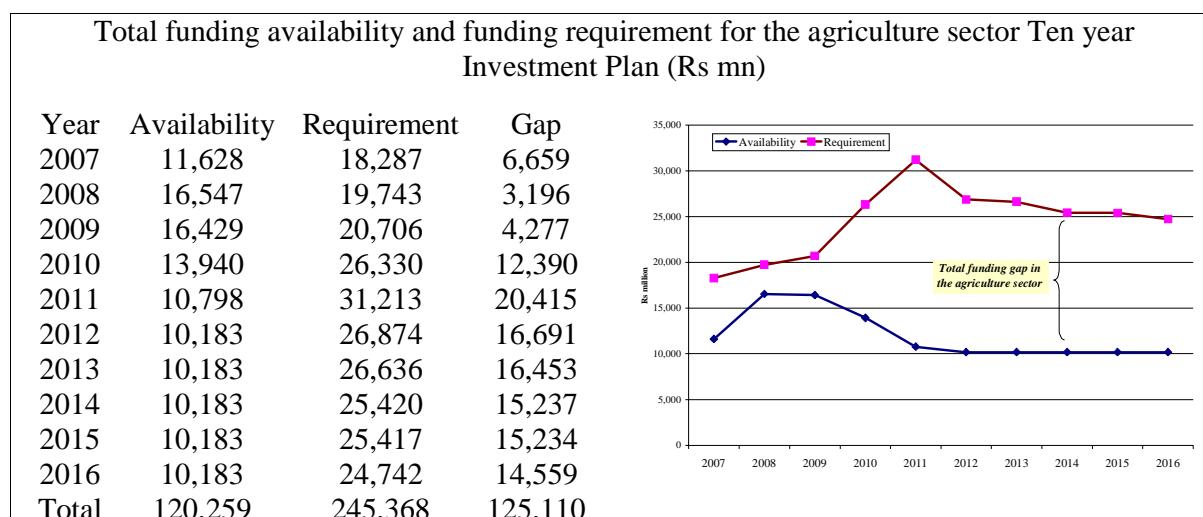
The provincial fund allocation was based on the extent of prevailing agricultural enterprises across the provinces. Therefore larger allocations are usually secured for provinces with larger agricultural activities. This means that the relative size of allocations of funds to Provinces do not necessarily correspond to their prevalent rates of poverty. Provinces such as Uva and Sabaragamuwa have high

poverty rates but receive a lower proportion of funding. Uva and Sabaragamuwa have smaller extents of OFC, livestock and export agriculture crops, but nevertheless receive higher amount of funds. This indicates that at the implementation stage of the investment plan, due priority should be given to the poorer provinces when allocating funds for new agricultural activities. Accordingly higher allocations are to be channeled to Uva and Sabaragamuwa by having more new activities – new cultivations of EAC, OFC and livestock farming. The poverty criterion is also valid in channeling investment funds to the plantations sector.

1.7.2 Financing the Investment Plan

The total financing requirement of the agriculture sector including domestic, livestock and plantations for the 10-year investment period is Rs 245.3 billion. The availability is Rs 120.3 billion assuming that the funds available in 2012 will continue to 2016. The financing requirement exceeds the availability by Rs 125.1 billion. Several financing sources are proposed to bridge this gap. The following table (Table 6) shows the financing positions and the gaps.

Table 6: Financing the Investment Programme: Availability and the Financing Gap



The success of the investment plan will depend on the realization of receiving funds, proper implementation of activities with necessary timing and an effective monitoring process.

1.7.3 Method of Financing by Source – Non-Plantations

Six types of funding sources are proposed to finance the investment plan as shown in Table 7. The sources are identified on the basis of the type of activities that a specific funding source would be willing to invest.

Table 7: Proposed Funding Source and Investment (Rs mn)

Funding Source	2007-09	2010-16	Total	% Share
Government	21,722	53,366	75,087	49.4
Community	300	700	1,000	0.7
Donors	10,887	41,816	52,703	34.7
NGOs	0	2,600	2,600	1.7
Private, Public Partnership (PPP)	1,085	5,130	6,215	4.1
Private sector	1,627	12,749	14,376	9.5
Total Investment	35,621	116,360	151,981	100

1.7.4 Interventions in implementing strategies –Plantation Sector

The total funding requirement for the plantation sector is Rs 93 billion. The total gap in funding in the plantation sector is Rs 56.6 billion. The investment is planned for the medium and long-term periods. Table 8 shows the investment funds requirement for the medium and long –term periods for the three plantation crops.

Table 8: Medium and Long Term Investment Plans by Plantation Crops (Rs mn)

Crop	2007-09	2010-16	Total	% Share
Tea	13,467	36,811	50,278	55.5
Rubber	7,015	23,707	30,722	33.9
Coconut	2161	7409	9570	10.5
Total Investment	23,643	67927	90570	100

Funds are already available for the sector through Cess, government funding, and donor projects. The available amount has been estimated for the period 2007 to 2012. This is inadequate to meet the required funds in the proposed investment proposal. The availability is then assumed to be constant from 2012 to 2016. The fund requirement for the total 10-year period exceeds the availability (Table 6). The total funding gap in the plantation sector is Rs 56.6 billion.

The proposed investments could be financed by the Cess, government, donors, the private sector and the community. The sources are identified on the basis of the type activities in the plantation sector in which a specific funding source would be willing to invest. Table 9 summarizes such activities with the proposed funding source.

Table 9: Sources of Proposed Investment by Key Activities in the Plantation Sector (Rs mn)

Source	Community	Donor	NGO	PPP	Private	Govt.	Cess	Total
CBO facilitation	20		1,158					1,178
Rural credit	80	18,650	103					18,833
Extension & HRD		2	220			1109		1331
Factory improvement		7,600			1,900			9,500
Infrastructure development		225			88	217		530
Land surveys & distribution		4,336	1			54		4,391
Marketing facilities		1,042	1	87	443	101		1,673
Out grower systems in estates	434	6,503		2,168	2,168	2,168		13,441
Planting material production					6,201			6,201

Source	Community	Donor	NGO	PPP	Private	Govt.	Cess	Total
Processing & value addition		178	1	100	2014	64		2357
Research & development		96	50			2,768		2,914
Cultivation assistance						5,039	20,000	25,039
Workers welfare		3,000	3,000					6,000
Total Investment	534	41,632	4,534	2,355	12,813	31,520	20,000	93,388

A substantial amount i.e. Rs. 2000 mn is also generated and ploughed back to the economy for research and development activities through export and import Cesses in the tea, rubber, coconut, and sugar sectors.

1.7.5 Poverty Focus in the Plantation Sector

Poverty is at the highest level and is increasing in the plantation sector. The investment plan took cognizance of this situation and proposed several pro-poor interventions in the plantation sector. The text table lists these activities and shows the allocation of funds for them. Total pro-poor investment in the plantation sector is Rs 52.2 billion and accounts for slightly more than half of the investment in the plantation sector. It is necessary that the implementation

Pro-poor activities	Investments (Rs million)	% of total
CBO facilitation	1,178	1.3
Extension & education	329	0.4
Land distribution	55	0.1
Out grower system	13,441	14.4
Planting material supply	6,201	6.6
Cultivation Assistance	25,039	26.8
Workers welfare	6,000	6.4
Total pro-poor investment	52,243	55.9
Total investment	93,388	100

of the investment plan takes a holistic approach to alleviating poverty objective and allocates sufficient funds for high poverty provinces such as Uva and Sabaragamuwa. These two provinces have a notable extent of plantation crops and thus will receive a substantial amount of funds. The rubber development programme will be implemented in the Uva Province, mainly in the Moneragala District. This will pave the way for providing funds for the province.

1.8 Land for Sustainable Use

Land is the most important natural resource which provides the basis for all human, biological and environmental needs. The total land area of Sri Lanka is approximately 6.56 million hectares. Present per capita land availability in the country is 0.3 ha. There will be a decrease in availability as the population continues to increase. Further, the extent of arable land in Sri Lanka is nearly 2.9 million hectares which is about 45 percent of the total land area of the country. The main agricultural land uses include paddy (27 percent) and plantation crops (tea, rubber and coconut, 24 percent). It has to be noted that about 44 percent of the agricultural lands are sparsely used which means that there remains a great potential for these lands to be properly developed / used. This is about 20 percent of the land area of the country.

Even though a large extent of land has been utilized for agriculture, the productivity level of land is unsatisfactory. For example, over 50 per cent of lands under tea, rubber and coconut cultivation are far below the average yield expected. Consequently, around 728,800 hectares are highly underutilized.

Vision

Development and management of the land resources of the country, based on scientific, environmental, social and aesthetic principles and standards to enable present and future generations achieve and enjoy continuous and optimum benefits from them.

Our vision is of a land policy that contributes to reconciliation, stability, growth and development in an equitable and sustainable way. It presumes an active land market supported by an effective and accessible institutional framework.

1.8.1 Development objectives

In realizing the vision, the development objectives are formulated for the effective land development and management ensuring food security, high quality of life, equity and ecological sustainability.

- Protect/ conserve the land resource of the country based on scientific principles and methods. Protect the human settlements, agriculture, infrastructure, industrial and commercial ventures, natural eco-systems and irrigation systems. Design and implement a systematic long-term plan. Adopt an effective process to evaluate the suitability of land use.
- Establish and strengthen a system of registration of title of land parcels.
- Promote the role of the state in matters related to lands i.e. in addition to allocation of land, the state should provide guidance for productive utilization of land resources.
- Allocate land for different purposes rationally and promote land suitability evaluation.
- Bring about a rational distribution of population and settlements in order to achieve a balanced regional development and systematic economic development.
- Introduce an effective tenurial reform for a greater degree of efficiency in the use of the land resource.
- Promote gender equality in ownership, conservation and utilization of lands.
- Minimize vulnerability of land to natural and man-made activities and promote land use minimizing environmental hazards.
- Utilize undeveloped and under-developed lands in urban and rural areas for development purposes.
- Ensure social equity in allocation of lands to the landless.
- Minimize fragmentation of agricultural lands.

1.8.2 Major obstacles/issues in achieving the objectives

- Improper land use causes various human, biological and environmental problems. It was quite evident that during the last few decades, the tendency of adverse effects due to natural disasters has been on the increase consequent to improper land use in Sri Lanka. In addition, fertile lands with high productivity have been reduced to very low productivity due to improper land use. According to the statistics available that nearly 44 percent of agricultural lands have been subject to improper land use can be observed in land degradation.
- A significant imbalance in ownership and tenure pattern of land resources.
- A large number of fragmented, unproductive and underutilized agricultural lands of small extents.
- Land is a scarce resource and is diminishing due to degradation.
- The existence of a large number of institutions taking decisions on land use, the complicated legal system, inconsistency in policy matters and the lack of an integrated approach to land use.
- Encroachment on lands.

1.8.3 Policy framework

Land is a finite resource which binds all together in a common destiny. As a cornerstone for reconstruction and development, a land policy for the country deals effectively with:

- the need for a more equitable distribution of land ownership;
- the need for clear title to guarantee ownership, aiming at reducing poverty and contributing to economic growth;
- the security of Tenure for all; and
- a system of land management which will support sustainable land use patterns and rapid land release for development.

The national land policy will provide an appropriate policy framework to ensure land use, food security, economic development, and to maintain the productivity of land at a high level. Such a policy will not only lead to protection, conservation, and sustainable use of the land resource of the country but also offer an appropriate and ideal framework that will best meet the needs of the present generation while safeguarding the land resource for future generations as well. The policy on land rests under the three pillars:

- (a) Agriculture and food security
- (b) Land and people
- (c) Land and nature

(a) Agriculture and food security

The agriculture and food security policy will focus on rational allocation of land, improvement of productivity and non-conversion of non-marginal land to other uses. This envisages the expansion of the agriculture sector to ensure self-sufficiency in food.

It is necessary to ensure food security and income generation at a commendable level through a sustainable utilization of agricultural lands. In order to accomplish the policy objectives, diversification of agricultural land use will be encouraged only when land productivity can be increased. In addition, agricultural lands, more suitable for paddy, coconut, rubber, tea, and minor export crops will be identified and developed. Conversion of these lands for other uses will be discouraged. Consequently, all marginal and uncultivated lands will be developed with appropriate land use. However, effective and suitable conservation measures will be a pre-requisite to realize the targets.

(b) Land and people

Land use plans will be prepared at National, Provincial, District, Divisional, and Local levels and land utilization will be based on these plans. In addition, a Zonal plan will be prepared to demarcate suitable locations. A land suitability evaluation will be carried out to allocate lands to the people. Institutions providing service / facilities for land use will be strengthened so as to provide the people a better service with their active participation. At the same time, the diverse land laws prevalent at present will be reviewed. A new legal framework that can be used for land use planning will be introduced and land vested in state authorities, which areas are not utilized, will be made available for proper development purpose. In contrast, conversion of agricultural lands in urban fringe areas for non-agricultural uses will be discouraged. Further, urban settlements programmes as well as similar rural settlements programmes will be formulated and implemented to promote regional development. A Land Information System (LIS) will be established. Action will be taken to minimize fragmentation of agricultural lands and avoid encroachment on state lands. Meantime degraded land will be rehabilitated and awareness and education programmes on proper and scientific land use will be implemented.

(c) Land and nature

Protection, conservation, and improving the quality of natural resources associated with land, will ensure long term well being without damaging land resources.

In order to accomplish the above, environmentally sensitive areas will be identified and measures will be taken to protect and conserve such areas. All the lands 1600m above the mean sea level will be protected and conserved. In respect of state and private lands on the same level with slopes exceeding 60 percent, action will be taken to stabilize slopes through soil conservation measures or convert such lands. In addition, natural forests, which have high biological and hydrological value, will be strictly conserved as conservation forests. Other forests will be allocated for regulated multiple use production forestry. Action will be taken to identify high, medium, low, landslide prone areas and introduce appropriate conservation measures, and the reservations of all natural and man made watercourses and sources whether private or state will be demarcated and protected with appropriate conservation measures. In such a situation, action will be taken to acquire private lands if necessary. Development and management of wetlands will be undertaken in accordance with land use plans and land use zoning will be carried out for vulnerable areas within the coastal zone in view of natural disasters. Training, awareness and education programmes relevant to protection, conservation and promotion of the natural environment associated with land will be implemented.

1.8.4 Strategies for achieving the targets:

The proposed land policy will help to boost economic activities, particularly in the agriculture sector. The foremost strategies in achieving the stated objectives are as follows:

- Instituting a National Policy Framework for conservation, management and development of land.
- Strengthening an institutional system for efficient land administration/management.
- **Bim Saviya** (strengthened land rights) will enhance value and productivity of lands and human satisfaction by strengthening rights to lands through making land available and providing clear and secure title to lands.
- Giving free hold rights to grants issued for state land in order to remove conditions attached to LDO grants in the approved category of settlements lying outside agricultural/irrigation settlement schemes.
- Establishing settlement patterning for regional development.
- Surveying national sea limits and marking and mapping national rights according to international conventions.
- Developing a Land Information System (LIS) and a Land Data Bank (LDB) on land for development purposes.

1.9 Fisheries Sector Development

1.9.1 Introduction

Fisheries Sector in the Economy

The sector contributes around 70% of the animal protein consumed in the country (*Food Balance Sheet: Department of Census and Statistics*). This is largely contributed by the local fishing industry which in 2004 produced 286,370 tons of fish thus accounting for 84% of the an important livelihood of the people living around the irrigation tanks and reservoirs mainly in the dry zone. The sector currently provides direct employment to about 150,000 people while total quantity of fish consumed. The Annual

per Capita Availability of Fish and Fishery Products in the recent past has varied between 17.5 kg & 18.5 kg.

Fishing has been the major economic activity in the coastal areas. It has also been around 100,000 are employed in numerous fishery associated activities. There are around 400,000 self employed. The sector provides sustenance to at least 2.4 million persons in the fishing households throughout the country. In the recent past, the sector has also emerged as a dynamic export oriented sector providing considerable foreign exchange earnings to the country. During 2000-2004 foreign exchange earned through export of fish and marine products has varied between a low of US \$ 83 m and a high of US \$ 100.8 million the percentage contribution to total exports of the country varying between 1.56% and 2.47%. The contribution of the fisheries sector to the Gross Domestic Product (GDP) has been rather marginal and has varied between 2.50 % and 1.88 % over the four year period 2001-2004. This declined to 1.03 % in 2005 due to the tsunami effects.

	Sri Lanka	Thailand
Total extent of the Continental shelf, Territorial sea and EEZ	538,500 km ²	437,767 km ²
Marine fish Production (2003)	254,680 mt	2,620,000 mt
Productivity per km ²	472 kg per Km ²	5,600 kg per km ²
People employed in Fishing	146,877	354,495
Productivity per person	1.73 mt	7.39 mt

Source: BOI

1.9.2 Fisheries Sub-Sectors

There are three main sub-sectors within the fisheries sector viz. *Coastal Fisheries; Offshore/Deep Sea Fisheries, and Inland Fisheries and Aquaculture.*

Coastal fisheries (those fisheries taking place within the continental shelf and undertaken by the fishing craft in single day operations) continue to be the dominant sub-sector in terms of its contribution to production and employment. In 2004, this sub-sector accounted for 54 % of the total production while 28,545 fishing craft representing 90.3 % of the entire fishing fleet of the country was deployed in this sub-sector. An estimated 80,000 fishers were directly involved in fishing activities in this sub-sector.

Offshore/Deep Sea fisheries/High Seas (those which take place outside the continental shelf and beyond extending up to the edge of the Exclusive Economic Zone and even in the high seas by multi-day boats) has been the fastest growing sub-sector. In 2004, this sub-sector contributed 34% to the total production of the country. The rapid expansion of the multi-day fleet which stood at 1,581 in 2004 has been primarily responsible for the growth of this sector.

Freshwater capture fishing in irrigation tanks and reservoirs is an expanding economic activity which provides cheap protein, incomes and employment for the rural people. **Aquaculture** is still in its infant stages and is limited to coastal shrimp culture and the production of fish seed for stocking; farming

of food fish in seasonal tanks and ornamental fish for export are the other activities. Its current contribution to production is quite modest (12 % in 2004), yet it has potential for a fairly large increase in production.

1.9.3 The Resource Base

Sri Lanka's fisheries and aquatic resource base includes a territorial sea of 21,500 sq. km. and an Exclusive Economic Zone (EEZ) of 517,000 sq. km. The country has a narrow continental shelf with an average width of 22 km. Its extent is 30,000 sq. km which is 5.8% of the country's ocean area. Though Sri Lankan waters are rich in species diversity the narrowness of the continental shelf, and the non-occurrence of upwellings impose limitations on the fisheries productivity around the island. Under the UN Law of the Sea, Sri Lanka is entitled to lodge a claim for an extended area of seabed where the thickness of the sediment layer is over 1 km. Once this claim is submitted and if accepted, Sri Lanka could gain an additional seabed area which would be 23 times the island's land area. The last comprehensive survey of the coastal waters done in 1979-80 (by RV Fridjof Nansen) indicated a possible annual harvestable yield of 250,000 mt. of fish from the coastal inshore area. Estimates of possible annual yield from the rest of the EEZ vary from 90-150,000 tons.

Sri Lanka also has extensive **freshwater and brackish water resources** to sustain viable fishing activities. According to NAQDA these comprise of around 260,000 ha of large irrigation reservoirs (70,850), Medium irrigation reservoirs (17,004), Minor Irrigation reservoirs (39,271), seasonal village tanks (100,000) Flood lakes (41,049), upland reservoirs/estate tanks (8,097) and Mahaweli river basins (22,670). On the basis of their size and fishery management norms the reservoirs in the country can be grouped under three broad categories:

1. Large (800 ha) and medium (200-800 ha) which are used for capture fisheries);
2. Small (1-200 ha) irrigation reservoirs for culture-based fisheries
3. Seasonal tanks which hold water for 6 – 8 months a year for culture fisheries

Opportunities also exist for **brackish water aquaculture** in a total extent of around 6,000 ha in Puttalam (1,200 ha), Hambantota (400 ha), Galle (200 ha), Batticaloa (1,600 ha), Mannar (800 ha), Jaffna (400 ha), Trincomalee (600 ha) and Mullaitivu (800 ha). Currently coastal aquaculture is practiced on any noteworthy scale only in the district of Puttalam and a few small scale farms in Batticaloa. :

Sector Vision

Sri Lanka to become a leader in the South Asian Region in sustainable utilization of fisheries and aquatic resources directing the utilization of fisheries and aquatic resources for the benefit of the current and future generations.

Policy Objectives of the Fisheries Sector as articulated by the Ministry are as follows:

- To improve the nutritional status and food security of the people by increasing the national fish production
- To minimize post-harvest losses and improve quality and safety of fish products to acceptable standards
- To increase employment opportunities in fisheries and related industries and improve the socio-economic status of the fisher community.
- To increase foreign exchange earnings from fish products
- To conserve the aquatic environment.

1.9.4 The Major issues constraining the development of the Fisheries Sector

There are several major issues constraining the development of the sector which needs to be addressed in a long-term development plan such as this; the more important among them are as follows:

1. Non-availability of reliable and up to date marine fish resource data has greatly handicapped the planned development of marine fisheries. The last comprehensive fish resource surveys were carried out over 25 years ago and the resource data needs to be updated through resource surveys and stock assessment.
2. Fisheries management has been weak and despite there being comprehensive fisheries laws (Fisheries & Aquatic Resources Act 1996) and associated regulations management of coastal fisheries is yet weak. Thus there is a urgent need promote co-management; this is a long process and requires awareness building and community empowerment and strengthening of community based organizations particularly the fisheries co-operative organizations.
3. The quality of fish landings is generally poor and fish spoilage is high particularly in the landings of multi-day boats. This is due to lack of proper fish landing and quality maintenance facilities on board the vessels and the lack of knowledge of fish handling and post harvest practices. Most multi-day boats still aim at higher volumes and only a small portion of the landings meet the international quality standards. This has serious implications on the export trade, local supplies of fresh fish and producer prices. Post-harvest value losses are estimated to be around 30% and the prevention of these losses is a major problem that needs to be addressed without delay.
4. Despite Sri Lanka's strategic position in the Indian ocean with the easy access it has got to Tuna resources as well as to the consumer markets in Europe and Japan Sri Lanka has not been able to utilize the resources in the high seas. Particularly in view of the limits to production increases in the coastal fishery it is imperative that Sri Lanka develops her capabilities in high seas fishing.
5. The conflict in the north and the east (which accounts for around 60 % of the total coastline of the island) has had very adverse impacts on the production performance of the sector during the past two decades. The damaged infrastructure and facilities as well as the curtailment of fishing activities arising both from the dislocation of fishermen and the restrictions imposed on fishing on security grounds has resulted in a considerable fall in production. Moreover many field interventions in the recent past did not materialize due to the non-conducive ground situation in the areas concerned.
6. Inadequate application of fishing technologies - particularly in offshore and deep sea tuna fishing, and in aquaculture - has prevented the optimum harvesting of these fish resources. Moreover the non-application of post-harvest technologies has constrained the possibilities for fish processing and value addition in order to obtain higher incomes.
7. Despite a conducive natural environment in the form of water bodies and suitable land resources being inland fisheries and aquaculture has been slow in developing largely due to constraints such as the inadequate stocking levels and their low social acceptance. In addition this, the sub-sector has been handicapped by sudden policy changes (e.g. 1989 withdrawal of state patronage) as well as certain religious and cultural prejudices as well environmental concerns.
8. Poor fisheries infrastructure particularly the under-equipped and badly maintained fishery harbours has considerably slowed down the development of offshore and high seas tuna fishing while inadequate ice production and storage and transport facilities have constrained the efforts at value addition, quality improvement and the improved distribution of fish.

9. The non-availability of capabilities and facilities for Monitoring, Surveillance and Control (MCS) including the lack of an effective Coast Guard Service and Vessel Monitoring System (VMS) has resulted in Illegal, Unregulated and Unreported (IUU) fishing taking place within the Exclusive Economic Zone. This limits the potential of the Sri Lankan fleet to reap the maximum benefits from the fish resources within the EEZ.
10. Inadequate investments in the sector has prevented the introduction of large sized and well equipped boats capable of exploiting the resources in the offshore and high seas. Further as a result of low investment the establishment of much needed infrastructure facilities such as better storage, net and line hauling gear and safety and communication equipment in the existing fleet has not materialized. Investments in the small scale sector too have suffered owing to the lack of development oriented credit schemes and this has led to low incomes and persistence of indebtedness.
11. Inadequate research, training and extension has resulted in the underutilization of resources particularly in coastal fishing where diversification of fishing methods is a dire need to harvest the currently unexploited and underexploited species. In addition it is necessary to utilize the landings in a manner that will prevent post harvest losses. In inland capture fishing and fish farming too extension efforts are yet ineffective particularly in stepping up fish seed production which is a critical factor in the stocking of water bodies to increase inland water fish production.
12. Degradation of the coastal and marine environment which includes coastal pollution and the threats to the sustainability of coastal habitats has emerged as a major problem adversely affecting the fishing industry. This needs to be addressed as a matter of high priority.
13. Tsunami waves which struck the coastline Sri Lanka in 2004 badly devastated the fishing industry reversing much of what was achieved in the fisheries in the past two decades. It destroyed 54% and damaged 23% of the fishing craft with most of the engines and gear. It destroyed 10 of 12 harbours and damaged most of the infrastructure. It also destroyed 16,500 and damaged 13,500 fishermen's houses. As a result fish production fell by 40% in 2005. While much has been done to rehabilitate the industry further efforts are needed within the Ten Year Plan period.

1.9.5 Baseline performance indicators

Some of the key measurable indicators of progress in the fisheries sector which have been identified in relation to the policy objectives stated above and which need to be achieved during the Ten Year Plan period are the following:

1. Level of Fish Production (by sub-sectors)
2. Per capita availability of fish and fish products based on local production
3. Contribution of the fisheries sector to the Gross Domestic Product
4. Export earnings from the sector and contribution to the national export earnings.
5. Employment generated through fishing and associated activities
6. The composition of the fishing fleet with a productivity improvement orientation.
7. The state of infrastructure development
8. Protection of the coastline and the improvement of the coastal environment

1.9.6 Expected Targets relating to the key measurable indicators

1.9.6.1 Projections of Fish Production (by sub-sectors)

The magnitude of the national fish production that can be achieved depends on the harvesting levels in the three sub-sectors viz. coastal, offshore/deep sea and inland fisheries and aquaculture. Such

levels in turn would depend on the resource availability, the level of effort based on the craft and fishing nets and gear in capture fisheries and fish seed and feed in culture fisheries. In both these major areas of fish production the availability of supporting infrastructure and facilities will be a key determining factor as is also a conflict free atmosphere conducive to the implementation of planned development work.

The level of fish production in the base year (2004) was as indicated in Table: 1. below:

Table 1: Fish Production 2004 by sub-sectors

Sub sector	Production (tons)	% share of production
Coastal	154,470	54%
Offshore & deep sea	98,720	34%
Inland Fisheries & Aquaculture	33,180	12%
TOTAL	286,370	100

Coastal fish production

Coastal fisheries sub-sector has always made the largest contribution to national fish production. This will continue to be so in the Plan Period as well though there is bound to be a decline in its relative share compared with the offshore sub-sector. It is expected that the coastal sub-sector's contribution to marine fish production will come down from 69% in 2007 to 57% in 2016. According to *Frijoft Nansen* Surveys (1979-80) the total maximum annual sustainable harvestable yield from the coastal area is 250,000 tons comprised of 170,000 t pelagic fish and 80,000 t of demersal fish. The highest production ever achieved in the coastal sub-sector was 184,049 (1983); production in this sub-sector in 2004 was much less i.e. 154,470 mt. Thus though there appears to be scope for increasing production in the coastal sub-sector in view of the uncertain resource picture it is necessary to adopt a "precautionary approach" in aiming at production increases. Hence no net addition to the coastal fleet will be encouraged other than in the case of One Day Boats. Thus the strategy that will be used to increase coastal fish production would be to (1).promote the harvesting of underexploited and unexploited species by diversifying gears and methods and by (2).improving the productivity of the existing vessels. On this basis, the production in the coastal fisheries sub-sector will increase from approximately from 181,000 to 240,000 over the plan period which is well within the estimated **maximum sustainable yield**. The variations in the size of the marine fishing fleet over the ten year period 2007-2016 and the projections of production are given in Table 2.

Offshore and deep sea fish production

Multi day fishing: Multi-day fishing has been the fastest growing fishing activity in the marine sector in the recent past. While there were 1,581 multi-day fishing boats in 2004 the Tsunami destroyed 187 of these boats and damaged a further 676. A large number of the damaged boats have already been repaired and it is assumed that the repairs of the balance would be completed by end 2006. However it may not be possible to complete the replacement of all the destroyed boats by end of 2006 and the replacement programme will continue in to 2007. The Multi-Day fleet will need to be expanded with the introduction of slightly bigger sized boats with better storage facilities, safety/communication equipment and net/line haulers. The projected net increase in the multi-day fleet over the plan period is 1,200 boats

and the landings by expanding the multi-day fleet is expected to increase from 80,000 t to 194,000 t in the plan period.

Fishing in the High Seas

There is scope for increasing fish production by harnessing resources in the deep sea area as well as in the high seas (beyond the EEZ). Sri Lanka has not been able to make effective use of the high value tuna and other resources in the international waters due to the non-availability of fishing vessels with the requisite capabilities. Hence it is planned to introduce 100 units of a new class of boats of over 24 meter length complete with line haulers, refrigeration equipment/storages, safety/navigation/communication equipment, accommodation and facilities for crews in line with international regulations. These will be introduced either under public-private partnerships or under private ownership under a phased programme. The first batch of three boats will be made operational during 2008. Each of these vessels are expected to produce 250 tons per year of high value fish mostly tuna. A Fleet Development Plan (FDP) as required by the Indian Ocean Tuna Commission (IOTC) seeking inclusion of these boats in the IOTC's Vessel Registry needs to be submitted to the IOTC without delay lest Sri Lanka gets left behind in the race for tuna quotas.

Summary of Marine Fish Production Projections is given in Table 2 below.

Table 2: Fleet Composition, projections of marine sub-sector production – 2007-2016

Year	Fleet Composition					Production			
	High Seas Offshore	%	Coastal	%	Total	High Seas Offshore	%	Coastal	%
2007	1113	1.7	29,246	98.3	260,902	80,136	31.8	180,766	69.2
2012	2140	6.6	30734	93.4	395,383	161,200	40.8	234,183	59.2
2016	2450	7.3	31234	92.7	435,183	194,200	44.6	240,983	55.4

As the above table shows, the composition of the marine fleet will undergo a slight variation with the absolute number of offshore/deep sea & high seas vessels increasing by almost 1,300 i.e. by 120% over the ten year period while the coastal vessels will increase by 2,000 i.e. by 7%.

In regard to the sub-sectoral contribution to production, the relative share of Offshore/High Seas sector will go up from 31.8% to 44.6%. The contribution of this sub-sector in terms of volume will increase by 114,000 t or by 140% over the ten year period while the production in the coastal sector will only increase by 60,000 t or by 33%. This is line with the resource limitations in the coastal sub-sector. The details of the fishing boats under the different categories, the estimated catch rates and the relative contributions from the two marine fisheries viz. coastal and offshore/high seas are shown in Table 2 above.

Inland Fisheries and Aquaculture Production

As shown under resources Sri Lanka possesses suitable and abundant water and land resources for the development of a viable inland fishing and aquaculture industry. After a setback in the early 1990s, this sub-sector has been rejuvenated with the re-establishment of the Inland Fisheries Division

(1994) and the setting up of the National Aquaculture Development Authority (1999). The Asian Development Bank funded Aquatic Resources Development and Quality Improvement Project (ARDQIP) is supporting NAQDA in developing freshwater capture fisheries and aquaculture up to 2009. This Project's main interventions directly impacting on production increases are in culture based fisheries in minor reservoirs and seasonal tanks and fish seed production. Through the implementation of these activities, total carp and tilapia production of all enterprises will increase up to 45,223 t at full development of the ARDQIP by the year 2009. Thereafter, a rather conservative annual growth rate of 7 % has been applied up to 2016 to forecast production up to 2016. On this basis, the volume of inland and aquaculture fish production will be more than double over that of the base year (33,180 mt in 2005) up to 72,614 mt by 2016).

Total Fish Production 2007-2016: Projected fish production from all three sub-sectors over the ten year period 2007-2016 computed on the basis of the assumptions made above is summarized in table 3 below:

**Table 3: Summary of the projected fish production from sub-sectors
(2007-2016) – Quantity tons**

Year	Coastal	Offshore/High Seas	Inland Fish: & aquaculture	Total Fish Production
2004	154,470	98,720	33,180	286,370
2007	180,766	80,136	39,500	300,402
2012	234,183	161,200	55,399	450,782
2016	240,983	194,200	72,614	507,797

Fish production trends over the plan period will thus be as follows:

- Coastal 180,766 mt. to 240,983 mt. – 33 % increase
- Offshore/High seas – 80,136 mt. to 194,200 mt. – 140% increase
- Inland & aquaculture – 39,500 mt. to 72.614 mt. – 84% increase
- Total production - 300,900 mt. in 2007 to 461,033 mt. - 69% increase overall

Fish production given above is the most critical indicator since all other indicators such as the per capita availability, contribution to GDP, export value and contribution to national export value are all dependent on the performance in fish production.

Per capita availability of fish and fish products based on local production

The Annual per capita supply of fish and fishery products in the recent past inclusive of imported dried fish and canned fish has varied between 17.5 kg and 18.5 kg. However in measuring the performance of the fisheries sector the more useful index is the supply of fish from local production. In 2004 this was 14.31 kg and an improvement of this index is aimed to be achieved during the plan period. Table 4 below shows that if the expected fish production and export targets are met, the per capita supply of fish from local production will go up by 63% from 14.81 kg to 24.22 kg which is the above the minimum recommended by the Medical Research Institute.

Table 4: Per Capita Fish Supplies based on local production

Year	Local Production of fis(tons)	Export Volume (tons)	Local Production less Export Volume (tons)	Population	Per capita supply from local production (KG)
2004	286,370	13,680	272,690	19,050,331	14.31
2012	450,782	20,959	429823	19,746,982	21.76
2016	507,797	26,885	480,912	19,985,012	24.22

This would mean that considerable volumes of imported fish products (canned fish and dry/cured fish) could be reduced thereby saving valuable foreign exchange. At the same it would enable export volumes of fish to be increased without much adverse impacts on the local supplies and local fish prices. The combination of these two would result in a trade balance in fish and fish products which will be favourable to Sri Lanka.

1.9.6.2 Contribution of the fisheries sector to the Gross Domestic Product

The sector's contribution to GDP has varied between 1.9 – 2.5 per cent during the past four years; the value of fish production in 2004 was Rs. 33,812 million which was 1.90 % of the GDP. It is necessary that this contribution be raised to a minimum of 4% over the ten year plan period and thus contribute towards the achievement of the country's overall economic growth targets for the same period.

The value of fish production as computed by the Central Bank for the last 4 years has been based on an average price of Rs. 175 per kg. Though this may be realistic at present, the average unit price of fish is expected to increase sharply on account of the change in the product-mix between the low and high valued fish. This is due to (1).increased landings of high value fish from the offshore/high seas resulting in a relatively higher percentage of high vale fish (skipjack, yellow fin and big eye tunas and billfishes; (2). expected overall improvement in the quality of landings of marine fish; &, (3). aquaculture development that will result in more high value items such as shrimp, red tilapia, crab etc. Thus regardless of any inflationary impacts a more realistic average unit price for fish would Rs.225 per kg. Based on this the value of the total projected production 504,000 tons expected to be achieved by 2016 will be around Rs.114,000 m i.e. an 100% increase on the 2004 level. Based on of available GDP projections the fisheries sector's contribution to GDP will be over 3% of the GDP by 2016 (projected GDP in 2016 being Rs. 3,600,746 m).

1.9.6.3 Fisheries Exports – volumes and foreign exchange earnings

Fisheries sector has emerged as an important source of foreign exchange through the export of several items of high value fish and fishery products such as chilled and frozen tuna, and products such as shrimp, lobsters, shark fins and sea cucumber. The total value of fishery-based exports has consistently been rising and there are bright prospects for increasing the volumes as well as the values over the ten year period. The projected increases are as follows:

- Export volume will more than double from a base level 13,639 t in (2001-4) to 28,269 mt in 2016;
- Export value will also almost double from the base level of Rs.9,176 million . (2001-4) to Rs. 18,171 in 2016. (It may be noted that value of exports computed is quite a conservative esti-

mate in that the average unit prices prevailing over the four year period 2001-2004 have been used in this computation).

The assumptions used in projecting exports volumes were:

- Frozen & Chilled fin fish - 5 % increase per annum through increased production from offshore & high seas and better quality fish from coastal landings;
- Shrimp – a modest rate of increase of only 3% per annum in view of diseases (prawn farming), limited scope for increasing captured shrimp volumes;
- Increase of 10% per annum in the case of crab (with fattening getting more popular), sharkfins (a by-product of the expanding offshore/high seas fishery), cuttlefish and squid (which are planned to be specifically targeted).
- No increase expected in the case of beche-de-mer, lobsters and chank (now under management or under consideration for management); and
- Ornamental fish a minimum of 10% increase per annum

1.9.6.4 Employment generated through in fishing and associated activities

Fishing has been the most important economic activity in the coastal areas of the country, while in the hinterland large numbers have engaged in capture fishing in the reservoirs in the dry zone and in prawn farming (in coast areas) and other forms of aquaculture for producing ornamental fish and food fish. According to NARA in addition to 150,000 engaged directly in fishing activities a further 500,000 persons were reported to be employed in fish trade and other fishery related economic activities. The employment scenario over the next decade is expected to be as follows:

Table 5: Employment in the sector

Category	Base year (2004)	2016
Direct Livelihoods	150,000	165,000
Indirect (Fishery related activities)	100,000	125,000
State services	5,000	5,500
Self-employment (fish trade, services etc)	400,000	500,000
Total	655,000	795,000

Thus the expected increase in employment is 140,000 which is 21% over the base year.

The direct employee category is expected to expand by a minimum of 10% as a result of the additional large vessels (for high seas/offshore fishing) and inboard motorized day boats and due to new inland and aquaculture activities including fish seed production.

In the **indirect category** which includes fisheries associated activities (such as boat building, fish net manufacture, ice production, fish processing/curing, and in providing other services required by the industry such as transport, supply/distribution of engines hulls etc) a 25% expansion is projected.

It is in the **self-employment category that the highest increase** is envisioned. This category relates to the services by the informal sector and includes activities such as fish trade & marketing, icing, packing and transport and whole gamut of other services.

1.9.6.5 Infrastructure development

There are 12 fishery operational harbours i.e. in Mutuwal, Panadura, Beruwala, Hikkaduwa, Galle, Mirissa, Puranawella, Kudawella, Tangalle, Kirnda, Trincomalee (Cod-bay) and Kaplitiya while three more viz. Hambantota, Ambalangoda and Chilaw are under construction. In addition there are 35 anchorages and about 600 minor fishing centers in Sri Lanka. The harbours which got badly damaged by the tsunami are now being built and will be completed towards the end of 2007-2008. Since most of the harbours are designed to service small vessels some of them will be re-developed to service the planned high seas vessels. Further a new harbour to support a high seas fleet is to be built at Dickowita. Among the other infrastructure facilities planned are expansion of ice production and the cold storage capacities to meet the island's requirements. In marketing, the key investment in the first two years of the plan period will be the construction of a modern fish market complex at Peliyagoda. The supply of fishing inputs will be increased by expanding the fish net production capacities, improving boat building capacities and assembly/manufacture of marine engines.

1.9.6.6 Protection of the coastline and the improvement of the coastal environment

Sri Lanka has a coastline of around 1600 km and there are several coastal environmental issues impacting on fisheries. Coastal erosion is the most critical since it adversely affects the beaches on which most of the fishing related activities of the small scale sector are based; thus erosion imposes negative impacts on fish production and on fishermen's living conditions. Beaches are essential for landing of fish and parking of traditional craft and small outboard motorized boats, beach seine fishing, rigging/repairing/drying/ cleaning and storage of nets and the construction of basic facilities required for cleaning/sorting/auctioning of fish. In addition, the coastal habitats such as mangroves, sea grass beds, coral reefs and estuaries are among the most productive eco-systems and play a major role in supporting fisheries and these need to be conserved and protected. Further the dynamics of fishery resources in the near shore marine waters and coastal water bodies such as lagoons and estuaries are closely interlinked with the dynamics of the rest of the Coastal Zone, its resources and resource use. The multiplicity of uses of the Coastal Zone often leads to conflicts among resource users causing social tension.

In this context a multi-sectoral approach best achieved through Integrated Coastal Zone Management is required. The Coast Conservation Department (CCD) attempts to achieve this through the policies and action programmes envisaged under the Coastal Zone Management Plan (CZMP). The major programmes in support of a better Coastal Environment are the protection/stabilization of erosion prone beaches, establishment of beach parks, prevention/minimization of coastal pollution (including water pollution), preparation of shoreline development plans, implementation of Special Areas Management Plans in ecologically sensitive coastal sites and the conservation of coastal habitats. These will form an integral component of the Fisheries Sector Plan.

1.9.6.7 Projections of the key measurable Indicators

A summary showing the baseline status as well as the targets related to the identified key indicators of performance in the sector is given in Table 6 below:

Table 6: Summary of Measurable Indicator Targets 2007-2016

Year	Fish Production (details in Table 8)	Per capita availability of fish and fish products based on local production	Export earnings	Export volume	Contribution of the fisheries sector to the GDP	Employment	Expansion of the HS/ Offshore fishing fleet
	Mt	KG	Rs. Mn	Mt	Rs Mn	Employees	No: of OS/HS boats
2004	286,370	14.31	9,176	13,639	33,812	655,000	1581
2007	300,179	14.80	10,535	15,103	67,540	685,500	1113
2012	437,476	21.09	14,545	22,423	106,821	692,512	2140
2016	466,631	22.00	18,176	28,269	114,000	795,000	2450
% >	55%	54%	98%	107%	235%	21.28%	120%

1.9.7 Implementation of the Plan

1.9.7.1 Fisheries Sector Projects and Programmes 2007-2016

The Fisheries Sector investment programme has been spread over three distinct phases viz. Short-term over three years (2007-2009), Medium Term over four years (2010-13), and Long-Term over three years (2014-16). Of particular relevance to the future development of the Fisheries sector is the strategy on *Partnership in Development* articulated by the “*Mahinda Chintana*” which envisages “private and public participation in economic and social development within a market friendly, export oriented and competitive economic policy framework to complement each other’s contribution, maximize value addition, employment creation and environmental protection”. In the first year of the short-tem investment programme of the sector a total expenditure plan of Rs. 5,343 million spread over 13 projects is envisaged.

In the case of most of the projects proposed for implementation under the Plan the source of funding is yet not certain though in the case of several of these there is some inkling of the possibilities since the line Ministry or the agency concerned appear to have already had some (mostly informal) consultations with certain donor agencies.

Problem and Policy Measures

Identified Issue/Problem	Policy Measures
1. Non-availability of reliable resource data	<p>1.1 Give Priority for surveys on fisheries and aquatic resources, stock assessments and exploratory fishing</p> <p>1.2 Disseminate findings on resource among the fishing operators and other stakeholders</p> <p>1.3 Undertake preparation and updating marine charts /maps and educate the fishers on their use.</p>
2. Weak Fisheries management	<p>2.1 Promote the principles of responsible fisheries</p> <p>2.2 Promote co-management of fisheries</p> <p>2.3 Improve the fisheries management framework by amending and updating the fisheries laws and regulations</p> <p>2.4 Enforce fisheries laws and regulations and prevent the use of undesirable & destructive gears & methods</p> <p>2.5. Create awareness on the need for, and fisheries management practices</p> <p>2.6 Reduce fishing pressure on coastal fisheries by diverting excess pressure to under-exploited species</p> <p>2.7 Strengthen Community Based Organizations particularly, fisheries co-operative organizations to play an active role in management</p>
3. Considerable post-harvest value losses and poor marketing & transport	<p>3.1. Encourage offshore boats to incorporate better fish holds and equipment for fish preservation</p> <p>3.2. Introduce and promote onboard fish handling</p> <p>3.3. Promote use of hygienic and stackable boxes for fish storage & transport</p> <p>3.4 Provide improved facilities for sorting / handling /packing of fish at landing centers</p> <p>3.5 Upgrade quality of ice and provide cleaner water at landing centers</p>
4. Non-exploitation of High seas Resources	<p>4.1 Encourage local multi-day fishing vessels to fish in high seas</p> <p>4.2 Arrange for the harvesting/production/supply of bait for tuna long line fishing</p> <p>4.3 Develop co-operation with regional fisheries management organizations</p> <p>4.4 Introduce better designs of boats equipped for high seas fishing with better storages, safety and communication facilities and specify guidelines for their production</p>
5. The conflict in the north and the east	<p>5.1 Give priority to the conflict affected fisheries in the N & the East.</p> <p>5.2 Make arrangements for re-location of the displaced fishers in their own villages</p> <p>5.3 Rehabilitate the damaged infrastructure and facilities for production and marketing</p>
6. Inadequate application of fishing technologies	<p>6.1 Promote long-lining for deep swimming tuna</p> <p>6.2 Introduce new methods and gears to harvest exploitation of unexploited and under-exploited species</p> <p>6.3 Introduce and promote fish seed production technologies among communities</p>

Identified Issue/Problem	Policy Measures
7. Slow pace of inland fisheries and aquaculture	7.1 Protect the rights of inland fishers to fish in irrigation reservoirs 7.2 Develop aquaculture as an environment friendly, socially acceptable and market driven industry 7.3 Encourage investors to commence aquaculture with community participation 7.4 Promote development of shrimp culture in accordance with zonal plans 7.5 Encourage private sector to undertake ornamental fish aquaculture projects using out-grower systems coupled with buy-back arrangements
8. Inadequate and poorly managed & maintained fisheries infrastructure	8.1 Involve stakeholders in the establishment & operation of infrastructure facilities such as harbours, anchorages, minor fish landing sites, coastal protection structures etc. 8.2 Strengthen facilities of the CFHC for proper maintenance of harbours 8.3 Develop public-private partnerships to obtain the participation of the private sector for provision of services such as cold storage, ice supply, water supply, slipway facilities etc. 8.4 Provide common infrastructure facilities for shrimp farming
9. Lack of a Monitoring, Control & Surveillance (MCS) System	9.1 Install a vessel monitoring system to track the movement of vessels within EEZ 9.2 Set up an effective Coast Guard Service 9.3 Obtain the participation of the fishers for obtaining information and for preventing unauthorized fishing activities
10. Inadequate investments in the sector	10.1 Obtain foreign assistance to build and expand capital intensive infrastructure 10.2 Encourage the private sector to undertake infrastructure facilities (fishery harbours) on “build, operate and transfer terms, 10.3 Arrange for channeling of development oriented credit facilities through the banking/financial institutions 10.4 Provide investment rebates/subsidies on selected activities such as high seas/offshore fishing, aquaculture and production of industry inputs (boats, nets, engines, ice)
11. In research extension	11.1 Give priority for applied fisheries research 11.2 Strengthen the network of extension services in order to disseminate research findings/information and technology among the fisher community & other stakeholders 11.3 Obtain assistance from national & international organizations in manpower development 11.4 Strengthen the Information, Education and Communication service 11.5 Consolidate the “Sagara University” and upgrade the quality of, and the

Identified Issue/Problem	Policy Measures
12. Degradation of coastal and marine environment	12.1 Implement the provisions of the revised Coastal Zone Management Pla 12.2 Give priority to rehabilitate the environment affected by shrimp farmin activities 12.3 Encourage culture of marine and brackish water fish including ornamental fish to reduce pressure on natural stocks 12.4 Protect erosion prone coastal stretches through sand nourishment, structure or vegetation 12.5 Implement programmes for conservation and protection of coastal/marine habitats
13. Damage caused by the Tsunami	13.1. Rehabilitate tsunami –affected fisheries on the “build back better” principle 13.2 Complete the replacement and rehabilitation of assets destroyed/damaged by tsunami.

2.8 Strategies and Activities to operationalize sector policies and achieve targets

Matrix given below indicates the main targets relating to the sector policy objectives as well as the strategies and actions needed to achieve targets and thereby the policy objectives:

Policy Objective	Targets	Strategies/actions
1.To improve the nutritional status and food security of the people by increasing the national fish production	1.1 Increase of Coastal fish production from 180,000 Mt. to 226,000 Mt.	<p>1.1.1 Conduct of a comprehensive marine fish resource survey</p> <p>1.1.2 Replace One Day (inboard engine powered) boats affected by the tsunami on an urgent basis.</p> <p>1.1.3 Ensure speedy and quality production of vessels and the availability of engines (for 1.1.2 above)</p> <p>1.1.4 Ensure availability of nets/lines</p> <p>1.1.5 Promote harvesting of demersal finfish</p> <p>1.1.6 Introduce methods and provide facilities to harvest currently underutilized/untargeted species.</p> <p>1.1.7 Introduce credit schemes to enable introduction of new One Day boats and for replacement of other boats and to provide working capital</p> <p>1.1.8 Implement a co-management programme under the principles of “responsible fishing”</p> <p>1.1.9 Development of anchorages and minor landing sites</p> <p>1.1.10 Management of fish landing centres preferably by fisheries co-ops/CBOs to provide the requisite services</p>
	1.2 Increase of Offshore Fish Production from 79,000 Mt. to 167,000 Mt.	<p>1.2.1 Replace balance multi-day boats destroyed by tsunami on urgent basis</p> <p>1.2.2 Introduce 1,050 additional multi-day boats</p> <p>1.2.3 Introduce credit schemes to enable additions and replacements of multi-day boats.</p> <p>1.2.4 Increase capacity of and quality of local boatyards</p> <p>1.2.5 Ensure availability of nets/lines</p> <p>1.2.6 Promote the use of net & line haulers</p> <p>1.2.7 Promote expansion of long lining technology</p> <p>1.2.8 Set up a Coast Guard Unit as an operational unit under the Navy</p> <p>1.2.9 Introduce and operate mother vessels</p>

Policy Objective	Targets	Strategies/actions
	<p>1.3 High seas production increased to 20,000 Mt.</p> <p>1.4 Inland Fisheries and Aquaculture production increased from 33,000 Mt. to 67,000 MT.</p>	<p>1.3.1 Formulate Fleet Development Plan for high seas fishing</p> <p>1.3.2 Facilitate obtaining IOTC tuna quotas</p> <p>1.3.3 Introduce 100 large boats above 24 meters</p> <p>1.3.4 Conclude umbrella agreements for fishing in outside waters</p> <p>1.3.5 Promote Public-Private partnerships/private investment to introduce new High seas boats</p> <p>1.3.6 Train crews capable of operating the HS vessels and enable acquisition of certificates</p> <p>1.3.7 Support high seas fishing through the provision of infrastructure.</p> <p>1.4.1 Increase supply of fish seed through culture based fisheries in minor reservoirs & seasonal tanks, by rehabilitating government centers and mini-hatcheries operated by CBOs.</p> <p>1.4.2 Implement Community base fisheries management</p> <p>1.4.3 Promote private aquaculture enterprises through NAQDA's model/ Demonstration projects</p> <p>1.4.4 Promote Carp culture in estate tanks Prawn farming</p> <p>1.4.5 Rehabilitate the Dutch canal</p> <p>1.4.6 Establish a diagnostic laboratory</p> <p>1.4.7 Enforce code of "best practices" recommended by NARA/QDA</p> <p>1.4.8 Introduction of a crop calendar shrimp farming</p>
<p>2.To minimize post-harvest losses and improve quality and safety of fish products to acceptable standards</p>	<p>2.1 Reduce the post harvest value losses in offshore landings</p>	<p>2.1.1 Introduce refrigeration/fish holds on coastal inboard engines and multi-day vessels</p> <p>2.1.2 Encourage 6-8 m FRP boats to carry ice and insulated boxes on fishing trips</p> <p>2.1.3 Promote on-board handling of fish</p> <p>2.1.4 Disseminate better fish handling/stacking techniques</p>

Policy Objective	Targets	Strategies/actions
	<p>2.2 Improve basic facilities for fish handling at landing centers</p> <p>2.3 Improve fish marketing and distribution system</p>	<p>2.2.1 Provide clean water at landing centers</p> <p>2.2.2 Paved areas for sorting/washing of fish and facilities for effluent disposal</p> <p>2.2.3 Provide ice and fish storage facilities and landing centers</p> <p>2.3.1. Establishment of a modern state of the art fish market</p> <p>2.3.2 Expand the net work modern/hygienic fish retail outlets</p> <p>2.3.3 Promote the use of stackable and washable fish boxes in fish transport</p>
<p>3. To increase employment opportunities in fisheries and related industries and improve the socio-economic status of the fisher community.</p>	<p>3.1 Promote fish based economic activities</p> <p>3.2 Promote fishery related activities such as production of fishing inputs</p> <p>3.3 Establish income generating/supplementing activities among coastal/fishing communities</p> <p>3.4 Improve the living conditions and quality of life of fishing families</p>	<p>3.1.1 Set up fish canneries</p> <p>3.1.2 Introduce improved techniques for curing/during of fish</p> <p>3.1.3 Promote economic uses of fish waste</p> <p>3.1.4 Resurrect traditional Fish/curing & preservation primarily for <i>elite</i> urban markets</p> <p>3.1.5 Promote recreational fishing in collaboration with the tourism sector</p> <p>3.2.1 Set up new fish net making plants and expand existing ones</p> <p>3.2.2 Set up new ice plants and cold stores</p> <p>3.2.3 Encourage manufacture or assembly of marine engines</p> <p>3.2.4 Expand the capacity for boat production</p> <p>3.3.1 Strengthen CBOs to organize and support income generating activities</p> <p>3.3.2 Strengthen women groups in fisher communities and encourage them to promote savings and invest in micro level projects</p> <p>3.4.1 Provide requisite amenities and facilities conducive to livelihood development and better quality of life of the fishers</p> <p>3.4.2 Set up 10 model fishing villages replete with amenities and facilities</p>

Policy Objective	Targets	Strategies/actions
4. To increase foreign exchange earnings from fish products	4.1 Volume of fish/fish product exports raised from 13,000 Mt. to 28,000 Mt. & value increased from Rs. 9 billion raised to Rs. 18 billion	4.1.1 Effective enforcement/monitoring of Fish Quality Control system 4.1.2 Development of facilities at harbours, anchorages & landing centers 4.1.3 Provide incentives to exporters tied to performance 4.1.4 Export Market Promotion to diversify export destinations by EDB/BOI/Ministry 4.1.5 Promote culture of marine ornamental fish 4.1.6 Promote harvesting, collection and value addition of new items of exports such as jelly fish, puffer fish, bivalves, gastropods and sea weed
5. To conserve the coastal and aquatic environment.	5.1 Stabilization & protection of Erosion prone coastal stretches. 5.2 Maintenance of clean beach environment 5.3 Conservation of coastal habitats 5.4 Prevention of beach pollution	5.1.1 Artificial Beach nourishment 5.1.2 Construction of coastal protection structures 5.1.3 Expand the green belt on the coastline with the participation of communities/coastal inhabitants 5.1.4 Formulate and implement shoreline development plans 5.1.5 Prevent sand and coral mining/damaging reefs 5.2.1 Establishment of beach Parks 5.2.2 Prevent unauthorized coastal constructions 5.3.1 Implementation of SAM Plans at identified sites 5.3.2 Rehabilitation of damaged/endangered habitats with community participation 5.4.1 Preventing coastal pollution (water pollution and solid waste disposal)

2. Development Strategy for Irrigation

2.1 Introduction

The irrigation sector faces numerous challenges that need to be addressed. The sector is faced with stagnant or low growth in productivity, inadequate water availability, inequitable distribution and inefficient use of water, poor profitability of crops grown, inadequate operation and maintenance as well as lack of participation in the management of irrigation systems. In addition the need for allocating water for multiple uses and sustainable use of water through river basin management have now become important issues with the rising demand of water for non agricultural purposes.

The policies and strategies for the irrigation sector outlined in the Mahinda Chintanaya such as multipurpose irrigation systems, small tank development, and trans-basin diversion of water to link existing rivers and irrigation systems to use water more productively, have been taken into account in the policy and strategy.

2.2 Overview of the Irrigation Sector

Irrigation is widespread in the drier areas of Sri Lanka, where the rainfall pattern requires water storage for successful irrigated cropping. When the policy of restoring abandoned irrigation systems was implemented, the priority was given to schemes in the Dry zone, with the dual purpose of resettling people from the land scarce south to the drier north and eastern regions. The irrigated area in the Dry Zone expanded to the current level between 1850 and the year 2000. Several large schemes were restored with financial contribution by the then government and to some extent the farmers. The Gal Oya scheme constructed in 1957 was the first multipurpose scheme launched, to be completed entirely with local manpower and financial resources. This was followed in the 1970s by Mahaweli, the largest multipurpose scheme. These multipurpose projects were aimed not only at irrigation development and settlement but also at hydropower generation. The Mahaweli project, which is by far the largest government project in the country, envisaged the development of more than 300 000 ha of new irrigated land and the generation of 800 MW of hydropower at the completion of the project.

The area under irrigation is presently estimated at about 600,000 ha, with over 80% of the irrigated area falling within the dry zone. A district-wise distribution of irrigated areas is provided in Annex 1. The largest areas (above 30,000 ha) under irrigation are in the districts of Kurunegala, Anuradhapura, Polonnaruwa, Batticaloa and Ampara. Over 80% of the irrigated farming area is cultivated with paddy and the balance in other food and field crops. In major irrigation areas, the cropping intensity is about 150%, whereas in minor irrigation areas it is about 100% or generally one crop a year. Irrigated crop yields range between 3-5 metric tons per hectare of paddy and much more in the case of other crops.

Contribution to the economy

Irrigation contributes substantially to the economy, by way of rice and other food crop production and has been largely instrumental in reaching self sufficiency in rice and in meeting a substantial proportion of the demand of other food crops. The contribution to GDP of paddy production is estimated at 3%, and with over 80% of rice production and about 25% of other food production obtained from irrigated areas, the contribution of irrigation per se to GDP may be only slightly less than this figure. Irrigation is also vertically and horizontally linked to the input and output servicing sectors such as fertilizer, chemicals,

credit and water supply, marketing, export, retail and wholesale trade, storage and processing. Hence irrigation's overall contribution is probably much higher. Average net income from irrigated paddy and other crop production is estimated at about Rs 5000 per month per family (current prices) in the Mahaweli area and less than this amount in other areas. Thus in terms of providing livelihoods and income to a large mass of the population, it is a vital sector and a substantial contributor to the overall economy as well as food security of the country.

Key institutions involved in the irrigation sector

Of the total irrigated area, about 400,000 ha are under major schemes, of which about 100,000 ha is under the administration of the Mahaweli Authority (Table 1). The balance 300,000 ha is managed by the Irrigation Department, while a further 200,000 hectares of irrigated land under minor schemes (below 80 ha) is administered by the Department of Agrarian Services. The Irrigation Department is responsible for the management of Schemes irrigating over 80 hectares, which is estimated to number over 300 (Table 2). Although reliable statistics are not available as to the number of minor schemes operating in the country, it is estimated that minor schemes may number over 15,000, of which only half are operational. There are several minor schemes that have been abandoned, while new ones are always being constructed or abandoned ones rebuilt.

Table 1. Mahaweli Economic Agency Irrigation Systems

Mahaweli System	Net Irrigable Area
System "B"	24,713
System "C"	24,995
System "G"	5,900
System "H"	33,600
Uda Walawe	17,400
System "L"	3,664
Total	112,272

Source : Mahaweli Statistical Handbook 2004, Mahaweli Authority

Table 2. Irrigation systems under the Irrigation Department

Size of systems (ha)	Number of systems	Total area (ha)
80 to 600	223	41,480
600 to 1,000	27	19,160
1,000 to 1,200	29	40,320
1,200 to 4,000	23	61,680
Over 4000	13	132,000
Total	315	294,640

Source : Land and Water Sector Development by Henry Gamage (Deputy Director Agriculture) 1992

Currently several agencies are involved in the construction or management of irrigation systems. The main government agencies involved in the irrigation sector and their responsibilities are provided in Table 3.

Table 3. Institutions in Irrigation Sector and Responsibilities

Institution	Main responsibilities
Irrigation Department (ID)	Implementation of Irrigation Ordinance. Design of irrigation and drainage schemes, hydrological investigations, O&M and water allocation within schemes
Irrigation Management Division (IMD)	Promotion and management of Farmer Organizations, rehabilitation and O&M, agricultural management, including crop diversification and promotion of income improvement activities in designated schemes

Institution	Main responsibilities
Mahaweli Authority (MA)	All aspects of the development of Mahaweli and other designated areas, including water supply, sanitation, human settlement, and irrigation construction and management.
Department of Agrarian Services (DAS)	Provision of wide ranging services to farmers in minor schemes including support for good water and soil husbandry, registration of farmer organizations and rehabilitation, the level of support varying with the needs of farmers.
Water Resources Board (WRB)	Investigations and commercial exploitation of groundwater resources and extensive advisory responsibilities, which are largely not utilized.

2.3. Current Policies and Policy Gaps

Currently policies in the irrigation sector can be categorized into the following areas.

- Institutional policy – Currently several government agencies are involved in the construction, operation and management of irrigation systems. This includes the ID, the IMD, the MA and the DAS. At the provincial level too there are provincial irrigation agencies for irrigation development and management and agrarian services. The Department of Agriculture (DA) also has central provincial agencies for agricultural development. There are many agencies responsible for irrigation that is causing duplication and inefficient use of manpower and institutional resources, this is a policy gap that needs to be addressed.
- Irrigation system management policies – Irrigation systems are jointly managed in major schemes with the management responsibility given to the farmer below the distributary level. In the minor schemes the management responsibility is entirely with the farmers. The current systems of management have been partly successful and therefore a good assessment should be made and the shortcomings or gaps addressed.
- Operation and Maintenance policies – O&M in minor schemes is the responsibility of the farmers while in major schemes the agency responsible for management is responsible for O&M above the distributary canal, while the farmers are responsible for O&M below this canal. O&M is still being largely financed by the government, although farmer contribution in the form of labour is forthcoming. Allocation for O&M by the government is declining and therefore level and quality of O&M is on the decline. Unless this situation is reversed, and the policy gap addressed, many systems will require extensive rehabilitation within a short period.
- Water allocation policy – currently there is no policy on water allocation from major water courses or water bodies for various purposes. The government decides on water allocation for various purposes on a case by case basis or when an issue arises with respect to water allocation. The lack of a suitable mechanism or institution to address the problem of bulk water allocation is a gap that needs to be addressed before the situation becomes critical.
- Irrigation financing policies – Currently, the government is responsible for financing of all new major irrigation development schemes. In minor schemes, the farmer makes a meaningful contribution in the form of labour, with the major proportion of the finances being provided by the government or other agencies such as NGOs, community organizations, well wishers or beneficiaries.

2.4 Key Issues in the Irrigation Sector

The performance of the irrigation sector has been mixed, with improved yields and cropping intensity being achieved under major schemes, while performance in minor schemes have not improved with the yields and cropping intensity remaining stagnant. Farmers in minor schemes still remain at subsistence levels but the potential for achieving high increases in yield by providing water at critical times for an otherwise rainfed crop is very high in minor schemes.

Overall the performance of irrigation systems both in minor as well as major schemes have not reached the potential and the economic returns from investments in irrigation have been far below the returns in other sectors including water use for other purposes such as power generation, industrial or other uses. The key issues to be addressed in improving the performance of this sector and in achieving its full potential are identified as follows;

- Low productivity in terms of yields, cropping intensity and water use efficiency.
- Poor or inefficient management of water for agricultural production
- Inadequate or inefficient maintenance systems
- Lack of modernization of irrigation technology
- Inadequate investment policies in the sector
- Uncoordinated development of regional surface and groundwater resources
- Institutional multiplicity and lack of coordination between related agencies
- Low profitability and inadequate market systems reducing income of irrigated agriculture
- Inadequate protection of irrigation watersheds
- Inadequate water allocation system.

2.5. Development Thrust

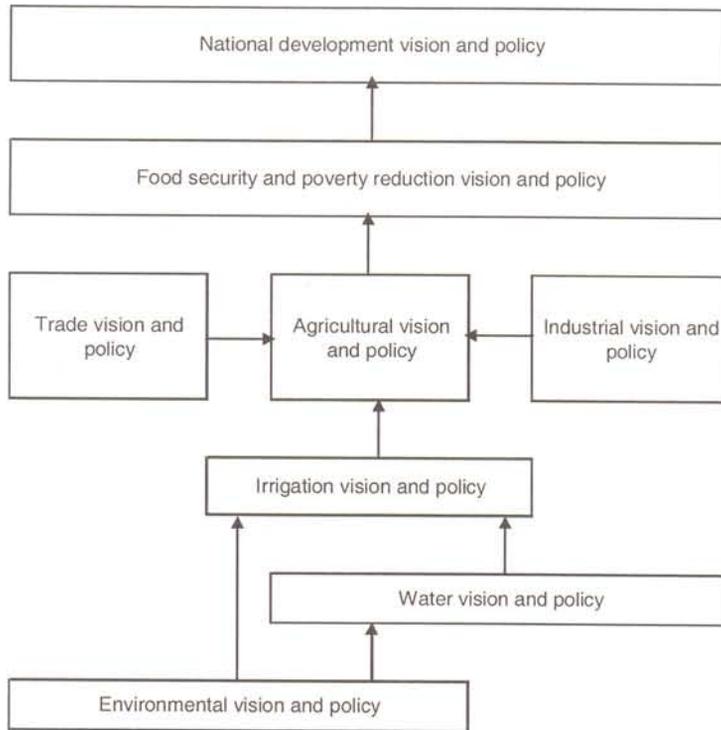
“By the year 2016, irrigated agriculture will be transformed into a commercially viable and technologically advanced sector producing for local consumption and processing as well as for export, using modern irrigation techniques that optimize water use and maximize production by increasing the productivity of irrigation systems. A more productive minor irrigation sector developed through participatory approaches will contribute to poverty reduction as well as fulfill the socio economic needs of the poorer farmer. New water resources developed, through trans-basin diversions and other means will lead to increased supply for irrigation and other uses.”

2.5.1 Vision

“By the year 2016, irrigated agriculture will be transformed into a commercially viable and technologically advanced sector producing for local consumption and processing as well as for export, using modern irrigation techniques that optimize water use and maximize production by increasing the productivity of irrigation systems. A more productive minor irrigation sector developed through participatory approaches will contribute to poverty reduction as well as fulfill the socio economic needs of the poorer farmer. New water resources developed, through trans-basin diversions and other means will lead to increased supply for irrigation and other uses.”

The vision of the irrigation sector is invariably linked to many other sector visions and contributes to the fulfillment of the national vision and policy through the intermediary vision of food security and poverty reduction as illustrated in the chart below. Obviously the vision of the irrigation sector must be inline with the vision of other related sectors to be a realistic and achievable one.

Figure 1. Irrigation Sector Vision and its Linkages



2.5.2 Objectives of the sector

- i. Increase productivity of unit of water through improved cropping and irrigation techniques in existing as well as new schemes.
- ii. Diversify and link output of irrigation systems with stable and established markets to stabilise income and productivity of irrigation systems.
- iii. Improve the management of existing major schemes, through successfully implementing participatory management systems in these schemes.
- iv. Improve the existing systems of operation and maintenance, through participatory approaches and establishment of viable funding mechanisms
- v. Improve management of minor or small schemes, through awareness, education and a farmer funding mechanism to support operation and maintenance and increase productivity. Assist in farmer financing of pumps or wells to enhance productivity from minor schemes.
- vi. Encourage and help to spread new technology for reducing water use and improve productivity of small and medium schemes, through such systems as micro or drip irrigation or other systems.
- vii. Improve the watersheds of small, medium and large systems through participatory approaches.
- viii. Rehabilitate, abandoned or poorly maintained but operational schemes, with farmer ownership including funding or labour inputs, with technical assistance from government irrigation agencies, including a study of surface and groundwater availability for such rehabilitation.
- ix. Establish a system of trans-basin linkages between major rivers or river basins to divert water to water short schemes and for multiple uses of water and develop other new systems if feasible.

- x. Establish river basin management authorities for all major river basins, to share water for various purposes and improve the distribution and productivity of both surface and groundwater.
- xi. Improve the capacity of institutions to better manage irrigation systems including groundwater resources.

2.5.3 Targets for the sector

- i. Water productivity to be increased by 20% in major schemes and by 10% in minor schemes by the end of five years
- ii. Policies for improved or more effective O&M be put in place and implemented within the next five year period.
- iii. Modern methods of irrigation to be practiced by 25% of farmers in irrigated areas
- iv. Cropping patterns of 30% farmers to be diversified within five years
- v. Management turn-over of 50% of the major schemes completed within five years.
- vi. Establish systems to strengthen Farmer Organisations, particularly in minor schemes.
- vii. Establish financially viable farmer companies for water management and input/output marketing in 25% of the major irrigation systems within five years.
- viii. Encourage public private partnerships resulting in at least 20% of new investments by the private sector over the next 10 years.
- ix. 1000 minor tanks to be restored every year under Dahasak Maha Wev Programme.
- x. Water shed improvement plans to be formulated for 25% of the most critically affected minor and major irrigation systems
- xi. Complete regional study on ground and surface water availability by third year
- xii. River basin management capacities to be developed within the next five years.
- xiii. Work on feasibility study of trans-basin diversion of Kaluganga, Nilwala or other wet zone rivers to the south east and northern areas.
- xiv. Continuation of implementation of projects in the master plan of the Mahaweli development program, starting with Moragahakanda and the North Central canal.
- xv. Develop new irrigation systems for which feasibility studies have been completed and have been found viable.
- xvi. Examine the feasibility of linking water short schemes with other schemes or river basins.

2.6. Strategies and Interventions

Improving productivity and irrigation efficiency

Productivity and efficiency of water use go hand in hand. Productivity can be increased through optimal input use including water, more balanced distribution of water, high yielding varieties, improved systems of water management, better operation and maintenance through farmer participation, and use of modern irrigation technology. However, all this comes to naught if the product cannot be sold for a reasonable price. Thus essential to improving productivity is to stabilize and improve the marketability of the produce. This may involve upward linkages to the input market and downward linkage to the seller. Storage and processing are also down ward links that help to stabilise prices and markets. New options such as highly productive irrigated orchards may be a solution, with an increasing demand for fruits from

higher income receiving urban-population where a large part of this demand is being met from imports at present. The strategies/policies that emerge are;

- Improve management of water through farmer participation
- Better O&M through funding by government and farmer
- Wider use of new irrigation technology to improve output of irrigation water.
- Foster upward and downward linkages to agricultural output, including contracted prices.
- Processing and storage as a price stabilizing instrument

- **Investments in rehabilitation of existing irrigation systems**

One of the strategies for improving productivity is to opt for rehabilitation of existing schemes. The return from rehabilitation is only through increased productivity from current levels to higher levels. This margin cannot be very high as average yields are reasonably good even in dilapidated schemes. In the case of new schemes the entire production is a benefit.

Furthermore, there is evidence to suggest that even in rehabilitated schemes with concrete lined canals, if the water supply is inadequate or not reliable, productivity cannot be increased. A recent study showed that in a scheme which had not been rehabilitated for a long period, yields were higher than an adjacent fully rehabilitated scheme, the main reason being there was adequate water available from drainage flows, giving yields about 20% higher than the rehabilitated scheme. A study of five rehabilitated schemes showed that there was no change in area irrigated, crop yields, profitability, crop diversification, employment, in all five schemes except for two schemes where cropping intensity improved after rehabilitation. This suggests that rehabilitation should be low key, without heavy investments, but with more emphasis on farmer participation and management and investment on essentials repairs.

What may be required is to improve water management through farmer participation and improvements considered essential for water distribution, rather than going for a full-scale rehabilitation. The system for O&M should be revamped to improve and maintain the system. The additional productivity obtained will justify the small investments made. Thus it is suggested that the strategy to adopt is to provide adequate funding for essential rehabilitation but accompanied by management improvement. A funding system should be established to contribute O&M funds equal to the contributions made by the users. This system prevailed earlier and was being successfully implemented, before it was abandoned due to political reasons. The strategies/policies that emerge are;

- Improved management of water in existing schemes through participatory approaches
- A farmer–government joint fund for O&M, based on a public private partnership arrangement.

- **Investments in development of new irrigation systems**

The cost of new schemes is high but in the long run may provide better returns than from rehabilitation. Moreover, a recent study shows that investments in irrigation infrastructure had direct impact on poverty alleviation and other beneficial multiplier effects. Larger multipurpose schemes may be even better, as benefits may accrue from the various uses for which the water is used. Irrigation combined with power generation and perhaps use in industry and domestic water supply may provide a stable flow of benefits over time, when compared to irrigated agriculture. A further benefit is the possibility of transferring water through diversions to schemes outside the basin to irrigate crops in chronically water short systems. In this case, the marginal benefit of applying an

additional unit of water would be very high. It may even save a crop that would have otherwise been lost. Despite high costs, new multipurpose systems may be cost effective, provide a more assured supply of water and thus induce the normally risk-averse farmer to invest in inputs and technology to increase productivity.

- Develop new but feasible schemes
 - Opt for larger multipurpose schemes among feasible alternatives.
- Policy measures to make irrigation investments, including private investments by farmers. Currently the irrigation sector investments are overwhelmingly public. Farmer investment in pumps and tube wells is emerging as an area of substantial private sector input. Investment in irrigation and agriculture is an area of investment with high potential. This potential has not been exploited fully due to lack of adequate incentives or carefully targeted consistent policies. Areas suitable for private investment include development and marketing of modern irrigation technologies such as micro irrigation, drip irrigation and sprinkler systems. However, it is cautioned that large scale development of wells and tube wells for drawing groundwater should be encouraged only after a good scientific study of water resource availability is completed.

Private sector participation in irrigated orchard and sugar cane cultivation would be an attractive option when developing new systems of irrigation or converting existing ones for crop diversification. Incentives for crop diversification should be accompanied by assured marketing of outputs, by the private sector for further processing, export or local sale. Super market chains have linked with the producer to obtain their outputs for sale in their outlets. This is another area that should be encouraged through incentives to the private sector. The policies/strategies that emerge are;

- A study to determine water availability for such purposes
 - Private-public partnership with small farmers in minor tank rehabilitation, O&M and warehousing and storage.
 - Crop diversification incentives with private sector investment in processing, orchard development, sugar cane production and products for the supermarket chains.
- **Investments in watershed development, especially in the context of minor and medium irrigation schemes**
 - The viability of small and medium schemes is threatened due to the destruction of their water sheds. Farmer involvement in watershed improvement would be ideal if the state is to invest in such development. Farmer input in the form of labour for planting, upkeep and protection of the watersheds will induce the state to invest in this area.

- **Improved water allocation system**

Basin level management of water resources is becoming increasingly important in the context of sharing and multiple use of water resources. This should be facilitated with necessary institutional arrangements. Public leadership and stakeholder participation is needed to implement this. Already plans have been drawn up for establishing such authorities, but implementation needs to be accelerated. The strategies/policies emerging are;

- Establishment of institutions for basin level management
 - Participation of stakeholders and the state in establishing water sharing policies
- **Small tank / minor scheme rehabilitation**

Small tank rehabilitation is less costly than major rehabilitation on a per hectare basis. Although benefits may be less than that obtained in major schemes, there are tangible and intangible socio-

economic benefits that accrue in small tank rehabilitation. Water is used for multiple purposes, the water body provides a better aesthetic environment for the village, people need not travel long distances to get to a water source, and the added benefit is the production of crops to provide a nominal income. Under the circumstances, minor tank rehabilitation should be encouraged, particularly since one can garner the support and participation as well the physical input for the rehabilitation. Thus, small tank or minor scheme rehabilitation is advocated, with the proviso that rehabilitation follows a scientific study of available water resources and that no other scheme dries up if a particular one is rehabilitated. The policies/ strategies emerging are;

- Rehabilitate suitable small tanks or schemes that bring in highest socio-economic benefits based on scientific approaches without adversely affecting other nearby schemes.

- **Institutional reforms and capacity building**

The existing irrigation institutions have to transform to meet the new challenges and policies that have to be implemented under this strategic development.

- The Mahaweli Authority to transform into a specialised construction and development agency
- The Irrigation Department is to specialize in management of irrigation schemes with the Mahaweli schemes also transferred to this institution
- The Agrarian Services Department should gear up to undertake a large rehabilitation program of minor schemes.
- The Water Resources Board should be made the responsible agency for the control and management of ground water resources with the necessary legal backing.

2.7 Investment Plan

Investments of ongoing projects have been incorporated in the plan for investments in irrigation sector. Several, new proposals included in the Public Investment Program fall in line with the strategies outlined in this report and have been included in the Investment Plan for irrigation sector shown in Table 5. The emphasis has been given to new schemes and annual investments. For example, new investments for multipurpose projects and trans-basin diversions have been given the highest allocation.

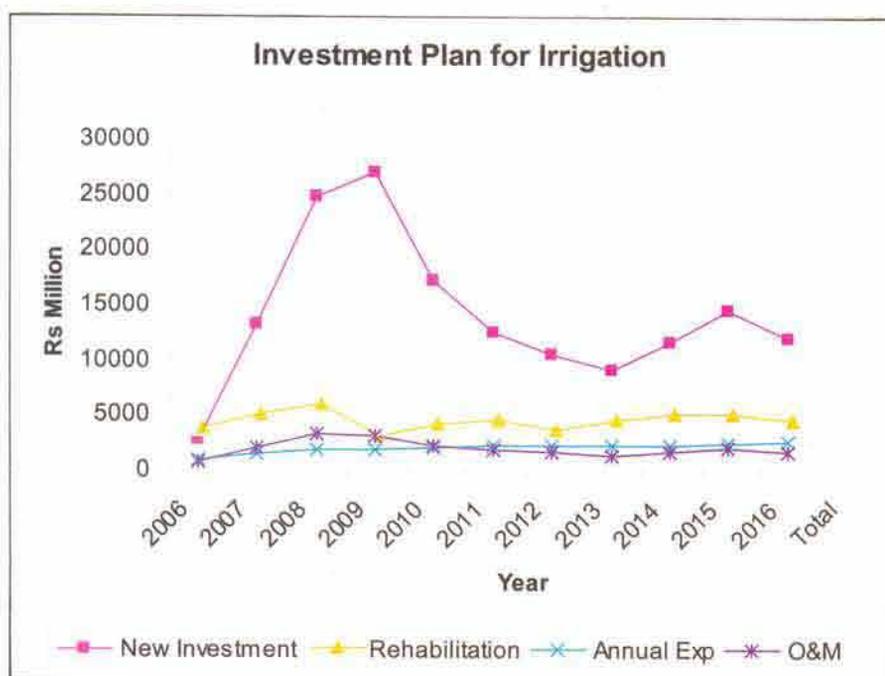
Table 4. Planned Investments in the Irrigation Sector (Rs Million)

Year	2006	2007	2008	2009	2010	2011
New Investments	2635	13159	24739	26984	17140	12500
Rehabilitation	3620	4811	5835	2810	4012	4250
Other /Annual	881	1420	1735	1845	1964	2094
O&M	740	1915	3180	3106	2245	1810
Total	7875	21305	35489	34745	25361	20654
Year	2012	2013	2014	2015	2016	Tot. 2006-16
New Investments	10500	9000	11500	14500	12000	129918
Rehabilitation	3510	4250	4900	4900	4250	41312
Other /Annual	2238	2139	2238	2343	2453	19615
O&M	1540	1325	1640	1940	1625	17886
Total	17787	16714	20278	23683	20328	208731

Sources : Based on PIP estimates

Minor tank rehabilitation, surface and ground water management, and other rehabilitation projects have been included under rehabilitation. Allocation for rehabilitation is roughly half that of new schemes. Annual expenditure includes administrative expenses for planning, designs, research, consultancy, inter-provincial transfers, and expenditure on small capital works as well transfers for investment by other agencies.

Figure 1. Investment Plan for Irrigation



Sources : Based on PIP estimates.

The investment plan is shown graphically in Figure 1. Gearing up to meet the rapid peaking based on PIP is considered feasible only on the presumption that some ground work for the relevant projects have already been carried out. The high level of new investments during the period 2007 to 2011 reflects the investments proposed for several new schemes such as the Uda Walawe LB extension, Moragahakanda, Mahaweli System B (LB) and Maduru Oya balance development. In the Irrigation Department, the Heda Oya, Uma Oya and Yan Oya development is to take place during this period. The new investment peak in 2015 reflects investment for the development of the Kelani ganga, Kalu, Nilwala and Gin ganga diversions and other new schemes identified.

Funding requirement for the entire period of 10 years is estimated at Rs. 210 billion or an average of about Rs 20 billion per annum over the next 10 years. As of now, it is understood that foreign funding is available to cover 25% or Rs 50 billion of the total investment. This proportion may rise once feasible projects are identified and foreign aid agencies show interest in financing such projects. It is also envisaged that part of the investment will be financed by the private sector, both farmers and the corporate sector. Table 5 provides details of possible funding sources for the investments proposed in the irrigation sector.

Table 5. Funding Sources for Investment

Funding Sources	Investment (Rs Billion)	Percentage of total (%)
Foreign Aid	62	30
Government Funds	84	40
Farmers	11	5
Private Sector	31	15
NGOs	11	5
Other agencies	11	5
Total	210	100

Sources : Based on PIP estimates

2.8. Enabling Environment

- **Risks**

The major risks are delays in implementation and the lack of technical manpower, and human resources needed to implement the plan. Inability to raise adequate funds is clearly another major risk. Cost overruns may reduce the viability of the project and the envisaged benefits may not be realized due to poor preparation of the project or inaccurate data used in evaluating the project. Implementation of the project will have multiplier effects with benefits accruing to other sectors as well. The plan will facilitate the spread of new technology that could be adopted in other sectors as well.

- **Possible safeguard measures**

More preparatory work and collection of reliable data would help in preparing good projects and plans. Closer monitoring during implementation would also help to reduce delays and cost overruns.

- The bureaucrats, policy makers, and politicians should maintain the consistency of policies and procedures once agreed. Policies should be well thought out and evaluated prior to implementation and once policies are operational enough time should be given to such policies to determine their impact before making changes. The manpower most suited for implementing such plans and projects should be used in implementation.
- Cooperation and support needed in terms of policies and strategies from other sectors/institutions having an impact on this sector.

Other related institutions such as the Departments of Agriculture, Water Supply and Drainage Board, the Water Resources Board and Agrarian Services can play a vital role in helping to implement such plans and projects. Their cooperation particularly in the technical aspects of cultivation and contribution to increased productivity would facilitate the implementation of the plan and strategies.

It must be ensured that all related sectoral policies are consistent with the overall national development policies and strategies, and the inter-linkages are also consistent.

3. Industrial Development : Towards Diversified High Value Added Industry Base

The industrial sector in Sri Lanka comprises a range of large corporate firms, small and medium scale enterprises (SMEs) as well as micro or household businesses that are based on self-employment activities. Sri Lanka's industrial policy has been designed with a view to address key challenges and issues facing all these sectors and places them on a new higher growth path. The industrial sector accounts for 27% of the GDP, and employs 1.8 mn people or 24% of the labour force. During the last decade, the average annual growth rate of the industrial sector has been 6.2%. The sector comprises 78% of the value of Sri Lankan exports.

While significant diversification of industrial activities have taken place during the last three decade, textile and garments sector accounts for the largest share of manufacturing activities and exports. The textile and garment sector has more than 950 factories in Sri Lanka, providing direct employment to almost 300,000 workers. It generates more than \$ 3 billion in export earnings per year, amounting to on-half of the country's export earnings. Sustaining the contribution of the apparel industry in a quota free environment as well as accelerating the process of industrialization in other products with high value addition including new knowledge based products will be the focus of new industrial development strategy.

Small and Medium Scale Industries are considered as the backbone of our national economy. SMEs account for about 70% of all industrial establishments, 30% of the total industrial output and 31% of employment. It is thus critical to assist and develop SMEs to bring them up to a national level and to be enabled to compete in international markets.

During the period of 2001-2005, the relative share of the manufacturing sector in GDP remained static/slightly declined. Hence, there is a need to introduce an aggressive industrial policy to increase the contribution made by the manufacturing sector through an accelerated industrialization process.

3.1 Constraints

Poor quality infrastructure is the main constraint. It has been revealed that 40% of urban manufacturing firms and 25% of rural industrial entities have cited electricity as a major problem. Access to electricity is heavily concentrated in urban areas and rural areas are grossly underserved causing regional economic disparities. Where electricity is available, supply is unreliable and manufacturing industries make use of generators to ensure continuous supply of electricity. Using generators has further increased the cost of production as industries already pay high price for electricity. Sri Lankan manufacturing industries pay more for electricity than their competitors in South and South East Asia region. As a consequence, competitiveness of local industries has deteriorated.

Unsatisfactory transport infrastructure has been cited as a major obstacle for doing business particularly by the rural entrepreneurs. Road quality appears to be main problem, followed by access to roads and lack of available transport. Only 20% of the urban manufacturing enterprises have identified transport as a severe constraint. However these entrepreneurs have complained about traffic congestions and high rate of absenteeism due to the unavailability of transport.

The provision of credit assistance through a series of concessionary financing schemes supported by the World Bank, ADB, Sri Lanka Government etc. have reduce the constraint on the absence of capital resources in industrial development. However, many urban manufacturing firms have identified the cost of finance as one of the constraints to expand or operate their current business. Also some rural entrepreneurs have cited finance as a constraint and most of them have identified high interest rates and

tedious loan procedures as severe constraints. Thus high cost and the access to financial resources are severe problems for the rural entrepreneurs.

Urban entrepreneurs often cited rigid labour market as a constraint for development of their enterprises. They have to retrench some employees when restructuring their enterprises by introducing new technologies. But the labor regulations restrict retrenchment and forced the entrepreneurs to use outdated technologies and thereby reduce the competitiveness of the local industry. Further, lack of entrepreneurship, low level of technology, marketing knowledge and management skills are also identified as constraints for industrial development.

A Vision for the Industrial Sector

A large base of vibrant and competitive world class manufacturing industrial firms to generate higher economic added, higher profitability and sustainable employment to offer widened opportunities for improved job quality and higher family income to alleviate poverty

Targets

Indicator	2005	2006	2010	2016
Contribution to GDP %	27	28	32	34
Industrial Growth %	7.9	7.5	8.6	10.5
Industrial Estates	16	17	30	45
Export Processing Zones	12	12	19	26
Employment (000)	1800	1850	2100	3300
Value of Exports (US \$ Mn)	4354	4694	8143	20990
FDI Inflows (US \$ Mn)	272	760	2421	4391

3.2 New Industrial Policy Framework

The Mahinda Chintana Industrial Policy (MCIP) advocates an approach where domestic enterprises can be supported while encouraging foreign investments. It integrates the positive attributes of liberal market economy with domestic aspirations. The MCIP envisages more effective industrial harmony, higher value added and productivity driven industrialization. It stands on “knowledge-based” and “technology-intensive” development. The proposed paradigm is a shift from the “import-based” industries to higher value added industries with backward linkages.

With a view to addressing the development constraints and achieving sustainable industrial development, an industrial policy framework consistent with Mahinda Chintana and consisting of ten policy initiatives has been designed. They are as follows:

3.2.1 Development of National Capacity to Manage Industrial Solutions

The risks taken by entrepreneurs in starting and operating industrial ventures can be minimized if a favorable business environment prevails. Creating and maintaining such environment depends on public policies and regulations and reaching a negotiated settlement respecting human rights, child protection and democracy for the conflict in the North and East Provinces would contribute immensely to restoring business confidence.

Apart from stable socio-political conditions, a conducive climate for investments needs to be developed through stable macro economic conditions; the availability of short term and long term capital; promotional policies for inflow of foreign technology; capital and managerial expertise; development of manufacturing, services and export capability and more importantly modern infrastructure.

- **Entrepreneurship Development**

The critical factor for economic growth is the sustenance of entrepreneurship, not the very sustenance of enterprises. Accordingly, entrepreneurship development is a strategy to develop national capacity to manage industrial solutions.

Entrepreneurs need the service of skilled employees to manage industrial solutions. In view of the upgrading of industrial solutions through introduction of new technologies, skills of the employees have to be developed regularly. With the application of new technologies some skills will be redundant. The employability of those employees that possess such irrelevant skills will drastically reduce unless they acquire new skills. Hence, through acquiring new skills and equipping with multi skills, employees can expect regular employment opportunities. As a result, industrial peace will prevail and a favorable business environment will be created.

- **Multi-skilled Labour Market**

Entrepreneurs restructure industries to improve competitiveness by introducing new technologies. They need the service of employees acquired new skills to make use of those technologies. Hence, multi-skilled workforce is a critical factor to enhance national capacity to manage new industrial solutions, as it will accelerate the process of introducing new technologies.

Training and retraining should be an essential part of improving adaptability of labour with adoption of modern technology. It would not be advisable to retrench workers when necessary without finding them alternate employment with appropriate compensation. Unemployment insurance will be a win-win situation for employee and the employer. This approach will be the basis to promote labour market flexibility given the educational advancement of Sri Lanka's labour force.

- **Promoting Introduction of Multiple Financial Tools**

High cost of funds and the emphasis on collateral by lending institutions are cited as constraints by both the urban and rural entrepreneurs. An effective system of credit guarantees would help in this regard. Credit to existing and potential new investors will have to be provided at reasonable rates. In addition to normal bank credit, several government sponsored credit lines are already in operation. The focus should be to ensure sustainability of the lending institutions as well as commercial viability of enterprises. Exclusive dependence on loans as the only financial tool will not strengthen financial security of entrepreneurs. Promoting competition in the financial market and introducing new financial tools will provide opportunities for entrepreneurs to select more competitive financial products. The newly created as well as existing financial institutions are encouraged to take a more proactive role in helping local enterprises.

No venture capital funding is made available to SMEs in Sri Lanka and capital market is hardly used by SMEs and large scale manufacturing firms to raise funds for their businesses. Family owned enterprises are reluctant to raise funds through capital market. As stated in Mahinda Chintana, incentives and guidance to local entrepreneurs will be given to induce them to list their companies in the Colombo Stock Exchange and action will be taken to increase the new listings by 40% during the next 6 years.

- **Promotional Measures on Enterprise Support Services (ESS)/Business Development Services (BDS)**

It is observed that there is a shift away from the government subsidized and operated enterprise support services (ESS)/business development services (BDS) delivery mechanisms to Business Associations operated ESS/BDS delivery mechanisms.

ESS/BDS companies and private sector firms provide non-financial business development services at competitive prices to the entrepreneurs. Hence, those companies develop their ESS/BDS products on a demand driven basis. In these circumstances, the promotion of those ESS/BDS companies and assuring quality of their services has to be undertaken by the government.

Industrial Development Board may function as the accreditation agency and register the ESS/BDS companies and monitor the quality of their services. Through such promotional measures ESS/BDS companies can make an outstanding contribution to strengthen the national capacity for managing industrial solutions.

3.2.2 Strengthen National Innovation System (NIS) to Enhance the Competitiveness of Industries

NIS usually consists of R&D Departments of Universities (Public/ Private/ Not-for-Profit), Public R&D Institutes, Private Enterprise-based R&D Departments, Industry- specific Private R&D Establishments and R&D Institutes operated by NGOs. Private sector agencies play the leading role in R&D work in field of manufacturing technology (MIT) in developed countries whilst in developing countries Public R&D institutes make the biggest contribution for development and diffusing of new technologies.

- **Strengthen NIS through Promotion of Public-Private Partnerships**

In Sri Lanka R&D work in MIT is done by 19 Public R&D institutions. Of these 9 are Public universities. These R&D institutes conduct fundamental and applied research work and undertake related development work. Due to resource constraints especially the financial resources these institutes conduct less ‘R’ work and more ‘D’ work. Hence NIS has failed to address the innovation requirements of the local industries.

Industrial Technology Institute (ITI), Engineering Faculties of the Universities are the only R&D institutes that undertake contract research work from the private sector firms. This best practice has to be adopted by both R&D institutions to enhance the competitiveness of local industries by introducing more innovations

It is necessary to have a close dialogue with industrial clients and an interface with financial institutes by public R&D institutes in NIS to make their R&D work more local industry oriented. Since there are no Private Sector R&D institutions catering to external needs, strengthening Public R&D institutions is very important. Public-Private Partnerships can be promoted to strengthen NIS.

- **Establishment of a Technology Development Fund**

It is also observed that commercialization of innovations made by private individuals and R&D institutions have shown little progress. Unlike in developed countries, our venture capital industry is not geared to commercialize R&D. The institutional support for commercialization of R&D results is provided by the government through Sri Lanka Inventors Commission. Technology Development Fund has to be established to commercialize the innovations made locally.

3.2.3 Micro Enterprises

The faster growth of manufacturing and services sectors usually compensates for the declining of the growth in agriculture. In order to ensure that the rural labour thus released is productively absorbed into industry and services, there is a need to upgrade the primary processing industries into those with higher rates of value addition in advanced processing while building up related service activities. Value addition in the products made in the rural economy will increase the income of the rural population and

thereby reduce rural poverty. Rural industries have to be promoted to undertake the value addition. Most of these rural industries are micro enterprises conducted by rural entrepreneurs at the cottage level. Some of those micro enterprises are developed and managed by self employed people.

- **Capacity Development**

In view of the isolation of the rural economy, limited marketing opportunities, inadequate physical infrastructure, dearth of skilled workforce, and limited access to financial resources special efforts have to be made for the development of viable micro enterprises. It has been revealed that large numbers of resource persons in the public sector and in the NGOs are engaged in the development of micro rural industries. Private sector business development companies also offered non financial services for the promotion of micro enterprises. Capacities of the staff of those business development agencies have to be developed to create more viable micro enterprises.

- **Establishment of Incubators, Cocoons and Mini Industrial Estates**

Rural entrepreneurs have to look for workshops to conduct their micro enterprises as sufficient space is not found in their cottages. By establishing incubators, cocoons and mini industrial estates infrastructure facilities required for rural micro industries can be provided.

- **Out Reach by Formal Institutions for the Delivery of Micro Finance**

Micro finance offered mostly through informal channels is the most reliable source of capital funds for rural enterprises. Recently, formal institutions ranging from ministries to commercial banks, finance companies and NGOs began to offer micro finance. Out reach by formal institutions for the delivery of micro finance has to be promoted by the government for the promotion of micro enterprises.

- **Savings Based Micro Finance Schemes**

Informal lenders hardly improve the financial security of micro entrepreneurs. Savings based micro finance schemes whilst improving access to financial resources for micro entrepreneurs strengthen their capacity to raise funds for the development of the enterprise. Since those savings based micro finance schemes are sustainable, public policies have to be designed to promote them.

3.2.4 Competitiveness of Small and Medium Enterprises (SMEs)

In spite of various policy reforms/incentives and the assistance of donor agencies, SMEs are less dynamic and underdeveloped than the large-scale enterprises. It has been revealed that the growth and expansion of SMEs are constrained by problems relating to both product and factor markets. Hence appropriate policy measures have to be taken to address those problems in order to improve the business conditions of SMEs and develop their competitiveness.

- **Promoting Cooperation among SMEs Joint R & D Work and Skill Development Program**

Low level of technology and absence of technical and managerial skills and lack of marketing skills have also been identified as constraints for the development of SMEs. By promoting cooperation among SMEs joint R & D work and skill development program can be undertaken for mutual benefit.

- **Establishing Incubators and Industrial Estates and Promoting Business Linkages**

Lack of adequate infrastructure facilities have been cited as other constraints for the development of SMEs. The required physical infrastructure can be provided by establishing the incubators and industrial estates. Assistance for marketing can be provided to SMEs by promoting business linkages and developing sub-contracting arrangements.

With the devolution of powers to provincial councils extension activities of SMEs have been thrust upon the Provincial councils. Hence capacities at provincial level have to be developed to promote SMEs.

- **Establishment of an Apex Authority for SMEs**

Since SMEs development activities are undertaken at the provincial and the central government levels better coordination is required. With the expansion of business development service (BDS) market, quality assurance of BDS products has become an important issue for the promotion of SMEs. Institutional support for coordination and quality assurance of enterprise support services can be provided by establishing an Apex Authority for SMEs.

3.2.5 Infrastructure Facilities to Create Competitive Advantages for Industries

Industrial entrepreneurs depend on the availability of key infrastructure facilities such as electricity, transport, water and telecommunications for the success of their initiatives. They prefer to minimize their upfront investment cost and their operational cost by locating factories in areas where those facilities are readily available. Countries develop their competitive advantages by building these infrastructure facilities.

- **Industrial Zones and Techno Parks**

Export Zones, Techno parks, Industrial Estates are accordingly built to facilitate industrial development. It has been the practice in the past to build these facilities by using public funds. Under MCIP, private investment is encouraged in this area and Industrial Estates and Techno Park will be built on BOT/BOO basis with private sector participation. With a view to accelerate regional industrial development public funds will be utilized to build such infrastructure facilities in the regions.

As a policy initiative dedicated industrial estates will be built for specific industrial sectors to address industrial pollution problems and facilitate using common services.

Industrial Incubators, Mini industrial estates will be established under MCIP to cater to the specific needs of start-ups and SMEs. These infrastructure facilities will be built by Public Private Partnerships.

3.2.6 Develop Industrial Sub-sectors through Cluster Initiatives

The sectoral approach in designating specific industries for promotion and granting of various incentives to those sub-sectors of industries is a method to promote industries. The selection of industries was considered necessary to effectively utilize the available domestic funds, foreign exchange, natural resources and the manpower. Tariff incentives, Tax incentives, financial incentives and the Support to R&D activities are offered and easing of regulatory controls was undertaken to promote those target industries.

Under the MCIP, the thrust industries will be developed as industrial sub-sector clusters. An industry cluster consists of members from every part of the business process - from raw material producers to manufactures to traders to retailers dealing directly with consumers. It includes representatives from government, preferably regulators of a particular industry, and representatives from supporting industries that make business possible - such as packaging, shipping, financial services, and information technology. So constituted, the cluster serves as a proxy for an entire industry. Working together, members of the cluster learn to appreciate each other's perspectives and needs and arrive at a consensus on strategy - what must be done to drive an industry forward

The thrust industry sub clusters are classified into two groups as indicated below.

- **Resource based Industries: Examples:** Ceramics, Rubber, Coir, Gems & Jewellery, Leather, and Spice based Industries and Processed Food Industries

- **Technology Intensive Industries: Examples:** Apparel, Electric/Electronic, Plastic, Machinery, Chemicals and Pharmaceutical Products

i) Ceramic Industry

The Ceramics industry in Sri Lanka is composed of three major segments: Tableware, (Porcelain, Stoneware or Earthenware); Ornamental art-ware (such as figurines, statuary, and decorations); and Ceramic tile (including wall tile and floor tile). There are at present approximately 30 ceramic companies in operation locally, seven of which are large with the remaining being small or medium scale enterprises. It has been reported that the Ceramic industry overall in Sri Lanka has reached a stage of stagnation. Ceramic exports have not grown for the last 10 years and the number of people employed in the industry directly and indirectly has remained static. Lack of brand and quality recognition, inadequate understanding of consumers' needs, lack of cost-effective energy sourcing, no consistency in quality of raw materials, limited value-adding capabilities at firm level and lack of readiness to use advanced technology for expanding product range and capturing new markets are identified as contributory factors for the poor performance of the ceramic industry.

It has been proposed to adopt the following strategies to improve competitiveness of the ceramic industry:-

- Establish a **Centre of Technical Excellence in partnership with Industrial Technology Institute (ITI) to improve the quality of Sri Lankan ceramic products**, encourage new products development through joint research and development and promote implementation of industry wide standards.
- Use **Industry Web Portal** to create awareness of Sri Lankan ceramics in the global market place, to serve as a platform for information to both local and foreign buyers, suppliers, manufacturers, raw material suppliers and potential investors and promote industry growth.
- **Workforce Development / Industry Placement program (IPP)** conducted as a public-private partnership program with University of Moratuwa to enhance employability of participating trainees and increase the number of graduates pursuing studies in the field of ceramics.

ii) Rubber Industry

The Sri Lanka Rubber industry consists of the plantations sector, the rubber products manufacturing sector and the rubber wood based industry. It has been proposed by manufacturing higher value added products, the rubber industry in Sri Lanka should lead the process of industrialization of the country.

The following strategies have been proposed to improve the competitiveness of the rubber based industry.

- Consolidation of Supply Side/Expansion of Rubber Plantations
- Empowerment of Small Rubber Holders
- Promote the establishment of custom rubber compound manufacturers
- Develop of Small Tyre Enterprises
- Promotion of FDI's in Rubber Industry
- Reinforcement of Rubber Research Institute (RRI)

iii) Coir Industry

Sri Lanka is the single largest supplier of coir fiber to the world market and together with India accounts for almost 90% of global coir exports. Although Sri Lanka has traditionally been the lead exporter of coir fiber and pith, India holds the dominant position in terms of revenue generated by the industry, given the higher value-added component of its coir exports.

The following strategies have been proposed to improve the competitiveness of the coir fiber based industries.

- **Manage Product Quality and Improving Productivity**
- Set up a demonstration mill to develop, test, demonstrate and, if found suitable, implement the advancements in the primary production of coir.
- **Expand existing markets and exploring new applications**

iv) Gem & Jewellery Industry

An age-old industry in Sri Lanka, the gem and jewellery industry remains one of the country's largest foreign exchange earners and was the country's third highest export in value terms in 2003. The industry's potential for value addition, profitability and employment generation is high but remains untapped to a large extent.

The following strategies have been proposed to improve the competitiveness of the gem and Jewellery industry:-

- Establish a world-class, internationally affiliated the Gemstone Testing Laboratory (GTL) for certification and research
- Establish a regionally recognized free-standing Gem & Jewelry Training Institute (GJTI) affiliated to a leading international training institute
- Launch an international sapphire promotion campaign to brand and differentiate the industry in Sri Lanka through a branding program for Ceylon Sapphires.
- Complete the National Gem Deposit Survey
- Improve the regulatory framework- better import export and taxation procedures, better mining and land use guidelines and policy, rationalization of government provided services such as training.

v) Spice-based Products

All spices exported from Sri Lanka are tropical aromatics and they come in three forms namely, Whole, Ground (powdered or fragmented form of the whole spice) and, Derivative, (including essential oils, oleoresins).

The main spice crops include cinnamon, pepper, cloves, cardamoms, nutmeg and mace, and cinnamon accounts for over 50% of total spice exports. .

The Sri Lanka spice industry's overall strategy is to position its products increasingly in niche markets and be recognized for its distinctive offerings. The following strategies have been proposed for this purpose:-

- Marketing distinctive, natural spices: This initiative aims to help Sri Lankan marketers of whole spices compete in attractive markets, serving buyers that cater to consumers who appreciate the distinctive taste, aroma, or color of whole spices.
- Marketing spice derivatives:
- Improving the quality, quantity, and consistency of the spice supply.

vi) Leather Industry

The leather industry in Sri Lanka is a traditional labor intensive industry. It is dominated by the small sector with 70% of the enterprises having less than 50 employees. Of the 20 public companies in the industry 6 have foreign share holding. The Industry consists of 3 types of manufacturing activities classified according to product groups i.e. leather, footwear and other leather goods.

The capacity of the industry is limited by supply constraints of raw hide. The capacity has been further reduced by environmental restrictions imposed by Central Environment Authority (CEA). There is a felt need to relocate tanning industries to a single complex wherein specialized waste water treatment facilities can be provided.

The following strategies have been proposed to improve the competitiveness on the leather industry.

- Improve the quality of raw hides.
- Upgrade and improve the skills of employees.
- Establish a leather industry development centre as public-private partnership.
- Enhance the value addition through the production of high quality leather production.
- Support for export base local industries

vii) Apparel Industry

The Sri Lankan Apparel Industry is the dominant manufacturing industry in the country and will remain so in the long-term. Its contribution to the GDP and to the earning of convertible currency is, and will be a big asset for the further development of the country.

After the phasing-out of the Multi fiber agreement (MFA) the industry has to increase its competitiveness in a fierce market environment. Hence an aggressive strategy will be required not only to consolidate the existing markets in the USA and in EU, but also has to gain market shares in the larger markets (Japan, China and India) where Sri Lanka has relatively a weak position. For this purpose Sri Lankan Apparel Industry must strive to expand its business with a product and market diversification.

The following are the major development objectives of the Apparel Industry.

- Consolidate the position in the USA market for leisure wear and enter into the upper market segment of the USA with higher added value offering more sophisticated products and diversified marketing
- Consolidate the market position in the UK and expand into the major other markets of the EU Italy.
- Develop a strategy to enter the Japanese market in cooperation with large distributors.
- Develop an expansion strategy for the SAARC and ASEAN markets
- Regain the domestic garment market currently supplied nearly exclusively by imports from Asian countries.
- Promote the foreign direct investments (FDI) in Sri Lanka, particularly the joint ventures of local entrepreneurs with American and European strategic investors. .

A series of strategies has been formulated to achieve these development objectives:

- Seek collaborative alliances as joint ventures in USA, EU and Canada
- Promote Colombo as a regional centre for the apparel trade activities
- Develop and promote the image of Sri Lanka made apparel and brand names as a trade mark for quality and design
- Upgrade the level of technology of the SMEs in the apparel Industry
- Provide the access to low cost finance
- Restructure enterprises with a particular focus on shifting to product specialization.
- Develop a formal public-private partnership for the management of training institutes

- Universities industry linkages for research to be strengthened.
- Promote backward linkages by establishing domestic factories to produce textile and other accessories

viii) Electric / Electronic Industry

The electric/electronic industry is a relatively new industry developed in Sri Lanka. About 80% of enterprises are SMEs, but 10 enterprises are joint ventures or operated exclusively by foreign investors.

The following strategies have been proposed to improve the competitiveness of the local electric/electronic industry.

- Leveling-up the manufacturing process – Upgrade from the present level of SKD (semi-knock-down) and CKD (complete-knock-down) to the level of “domestic design and buy parts” and “own design”
- Introduction of Reverse Engineering
- Promotion of Product Design
- Efficient Procurement through International Procurement Operation
- Establishment of Elector Technology Center
- Establishment of (printed circuit board) PCB Center
- Promotion of clustering with IT Industry

ix) Plastic Industry

The plastic industry is still in the infant stage of development in Sri Lanka. Nearly 60% of plastic manufacturers are SMIs. Plastic products currently manufactured are mainly for end-use consumer goods. However production of engineering plastics has increased recently.

The following strategies have been proposed to improve the competitiveness of the industry.

- Promotion of plastic packaging products
- Promotion of plastic manufacturing for Electric/Electronic use
- Promotion of FDI in plastic Industry
- Market expansion through product development
- Promotion of R&D
- Environmental protection and recycling

x) Machinery Industry

The machinery industry in Sri Lanka had a good history, even exporting some specific products (e.g. tea processing machinery). The machinery industry now is in a critical situation defeated by import at margined prices. Notwithstanding the aggravated situation that the machinery industry now faces, new industrial policy advocate promotion of the machinery industry as one of the target industry because the reactivated machinery industry will consolidate the foundation of industrial development.

The following strategies have been proposed to reactivate the machinery industry and make it a globally competitive industry.

- Promotion of agricultural machinery
- Introduction of New Design and Licensing of Foreign Advanced Technology
- Promotion of Subcontract System
- Promotion of Clustering

3.2.7 Promote Geographical Industrial Clusters

As hands-off approach relied on market forces and the interventionist approach based on top-down model failed to correct the spatial imbalances; there was a felt need for an alternative development approach to address the issue of spatial imbalances. Geographical Clusters based approach geared to harness localized inter-and intra-industry linkages is accordingly advocated now as an alternative development approach.

Geographical Clusters defined as geographical concentrations of enterprises that produce and sell a range of similar/related/complementary products and services have been identified as an effective non-hierarchical institutional mechanism that enable firms to operate in a more competitive and complex environment. Clusters through networks arrangements elevate the level of small firms to that of the cluster of firms to face the competition from 'outside' effectively and promote co-operation versus competition among small firms within the clusters. Clusters have accordingly, succeeded as an alternative to markets and hierarchies in production and innovation. Development and promotion of clusters is advocated as a regional development strategy to address the issue of spatial imbalances in Sri Lanka. The following types of geographical clusters have been identified for industrial development:-

- Industrial Villages
- New regional Growth Centers

- **Industrial Estates and Techno Parks**

Highest priority will be given to Industrial Estates and Techno Parks by ensuring unrestricted and duty free access to imported inputs and required technical services. With a view to reduce transaction cost procedures and documentation in regard to export related activities will be simplified and streamlined. Institutional support will be provided to the exporters to have access to accurate information on markets/product specifications/technologies.

- **Provision of Financial Resources**

MCIP whilst ensuring provision of financial resources at internationally competitive rates and expanded access to financial resources from the most competitive sources provides a complete package of financial and technical services to diversify and expand exports and new exporters to sell their products abroad on competitive terms of payments.

3.2.8 Develop Industrial Exports

Mahinda Chintana Industrial Policy advocates the maintenance of an enabling policy environment through fiscal, monetary, trade policy strategies and to enhance the competitiveness of export oriented industries that generate resources required for a rapid industrialization.

- **Remove the Barriers to Development of Export Oriented Industries**

Unrestricted and duty free access to imported inputs and required technical services will be promoted. Procedures and documentation in regard to export related activities will be simplified and streamlined with a view to reduce transaction cost.

- **Provide Efficient and Accurate Information on Markets/Products/ Technologies etc.**

Institutional support will be provided to exporters to have access to market information.

- **Provide Financial Resources at Internationally Competitive Rates**

The access to financial resources from the most competitive sources and technical services will be expanded to diversify and expand exports to sell their products abroad on competitive terms of payment. Export credit insurance and guarantees will be provided to minimize their risks.

3.2.9 Promote Foreign Direct Investments

Foreign Direct Investments (FDI) has been recognized as one of the important drivers of the economic growth of the country. The major goal of Sri Lanka's FDI policy is to attract capital; technology transfer; development of technical & management skills; employment creation; promote private-public partnership especially in development of infrastructure; expansion and diversification of exports and knowledge based industry; enhance value addition & export earnings; development of rural areas and thereby improve the living standard of people specifically the rural community and realizing the cause of industrialization. FDI is freely permitted in all sectors including the services sector other than few sectors reserved only for Sri Lankans.

Board of Investment (BOI) Strategies to attract FDI

- Primarily target towards infrastructural development and accelerate the development of high quality infrastructure such as Special Economic Zones (SEZs)/Export Processing Zones (EPZs) and Technology Parks
- Utilization of preferential market access as an effective marketing tool
- Develop and utilize Sri Lanka's supply capacity to growing Indian market on selected sectors (e.g. automotive parts)
- Liberal entry and operational conditions and develop firm specific policies, customized to the requirements and expectations of such companies
- Undertake more targeted efforts to promote export-oriented FDI by providing flexible incentives in a focused way to encourage target companies to invest in strategic activities and these incentives to be based on taking development to the rural areas
- Cluster Development including backward and forward integration
- Development of knowledge based industries
- Skills development in the areas of IT and English through universities and vocational training institutes
- Make use of services of the Sri Lankan missions abroad to identify potential foreign investors and to promote Sri Lanka as an investment destination
- Identification and structuring of projects for public-private partnerships
- Promote competitiveness
- Simplifying procedures in allocation of land
- Identification of thrust areas for investment promotion

3.2.10 Promote Harnessing Industrial Complementarities

There is growing demand for strengthen industrial complementations within regions to enhance competitiveness of industries. Hence continuous efforts are needed to formulate policies to harness the industrial complementarities in the region.

- **Facilitate offshore investment by local industrialist to avoid duplication of industrial capacities**

Sri Lankan private sector firms have already made off shore investments in the SAARC region to increase their global competitiveness.

- **Re-engineer public enterprises to make use of regional industrial complementarities**

Form joint ventures with their counterparts in the SAARC region following the ASEAN model of AIPs to harness regional industrial complementarities to make public enterprises export oriented viable business entities.

3.3 Roles of Stakeholders

- **Government**

The Government plays a dual role namely facilitating and regulating for industrial development. It facilitates industrial development through creating an enabling environment and provision of infrastructure facilities. The Government also plays the regulatory function to promote competition and to ensure conformity to the international quality standards and environmental stipulations.

- **Private Sector**

The Private sector plays the prominent role in industrial development by undertaking investments. With a view to stimulate private sector investment, the Government promotes Public Private Partnerships to accelerate industrial development in areas where private sector needs help.

- **Cooperative Sector**

Cooperative industries played an important role in the past in adding value to local resources. Cooperative entrepreneurs are expected to revive cooperative industries and provide financial assistance to SMEs through Cooperative banks.

- **NGOs Sector**

The NGO involvement in supporting the industrial development especially the SMEs sector needs focus on advocacy and business development services.

- **Trade Unions**

Trade unions play an important role in the development of industries. Maintaining industrial peace and increasing productivity, they enhance the competitiveness of manufacturing industries.

3.4 Investment Plan 2007 – 2016

Rs. Mn.

Major Intervention	2007-2009	2010-2012	2013-2016	Total Investment
1. Entrepreneurship Development	150	170	250	570
2. Productivity, Quality & Skills Development	30	45	60	135
3. Innovation Programmes	400	550	750	1700
4. Exports and Trade Promotion	760	900	1200	2860
5. Foreign Investment Promotion	180	180	240	600
6. Industrial Infrastructure Development	1225	1200	900	3325
7. Rural Industries Development	1660	1000	1500	4160
8. Financial Assistance Programs for SMEs	6000	7500	8000	21500
9. Sub-sector Development Programmes				
i. Food Processing & Other				
Agro- processing Industry	680	750	1050	2480
ii. Coir Industry	25	30	45	100
iii. Wood-based Industry	15	12	20	47
iv. Rubber Industry	60	70	95	225
v. Footwear Industry	50	30	40	120
vi. Electrical & Electronic Industry	100	150	200	450
vii. Ceramics Industry	70	30	40	140
viii. Gems & Jewellery Industry	350	400	450	1200
ix. Die & Mould Industry	150	20	30	200
x. Metal based Industries	45	35	40	120
xi. Textile Sub sector	2000	2200	1300	5500
xii. Handloom Sub sector	400	600	500	1500
xiii. Apparel Sub sector	150	200	250	600
xiv. Floriculture Industry	20	30	45	95
xv. Other sub sectors	200	250	350	800
Total	14720	16352	17355	48427

4. Economic Infrastructure : Mahinda Randora

4.1 Power and Energy

Sustainable development of energy resources, conversion facilities and delivery systems to enable access to and use of energy services by the entire population, and the safe, reliable delivery of such energy services at a regionally competitive price, through commercially viable institutions subjected to independent regulation is the vision for the energy sector.

4.1.1 Current Status

Biomass (47%), hydropower (8%) and petroleum (45%) are the main primary energy resources used in Sri Lanka, with a per-capita consumption of about 0.4 toe¹. Thus, indigenous, renewable sources of energy provide 55% of the national primary energy needs. All petroleum products are imported, and used for transport, electricity generation, household, commercial and industrial requirements. Electricity and petroleum products are the main forms of commercial energy, and an increasing amount of biomass is also commercially grown and traded. The two Government Ministries with direct responsibilities of the energy sector are (a) Ministry of Power and Energy (Energy Policy, Electricity Subsector, Energy Efficiency and Renewable Energy Development), and the Ministry of Petroleum and Petroleum Resource Development. Other Ministries and Provincial Ministries too have specific responsibilities and roles in the development and management of the energy sector.

Biomass: An estimated 70% of the national biomass consumption is in the informal sector, for household cooking, small commercial and industrial applications. Industrial use has been in traditional agricultural processing (rice, tea, rubber, coconut, other crops) and in the building material industry (brick and tiles). Biomass use in industry is growing, as a result of price increases in petroleum fuels. A significant number of agricultural processing systems (particularly in tea processing) are switching-over from oil to biomass for thermal energy requirements. In addition to the power plants using waste sugar cane in the sugar industry, which have been operating for some time, one power plant rated at 1 MW is already using grown biomass for power generation. The Government has announced a new initiative to grow biomass as a commercial fuel, and an incentive scheme is already operational to grow biomass as an under-crop in coconut plantations.

Petroleum and Gas: Ceylon Petroleum Corporation (CEYPETCO) imports crude oil and finished products, operates the 50,000 bpd² refinery, and markets the products in bulk and through retail outlets. Lanka Indian Oil Company (LIOC) imports products and markets them in bulk and through its own retail outlets. Ceylon Petroleum Terminals Ltd (CPSTL), jointly owned by CEYPETCO and LIOC, operate the two main petroleum storage facilities. In 2005, the combined sales of CEYPETCO and LIOC were 3.64 million metric tonne of petroleum products. The total value of crude oil imports and net imports of refined products was LKR 153,392 million. The Liquefied Petroleum Gas (LPG) industry has two suppliers: Shall Gas Lanka Ltd and Laugfs Gas Ltd, and the sales in year 2005 was 165,000 metric tonne, of which only 8% was produced in the CEYPETCO refinery. The value of LPG imports in 2005 was LKR 7573 million.

Electricity: Ceylon Electricity Board (CEB) and eight Independent Power Producers (IPPs) generate electricity in Sri Lanka, using hydropower and petroleum fuels. Over fifty privately-owned renewable energy-based Small Power Producers (SPPs), mostly small hydropower, also sell their electricity to the national grid. CEB operates the high voltage (HV³) transmission system and the grid

¹ toe = tonne of oil equivalent, defined to be equal to 10 gigacalorie.

² barrels per day

³ 132 kilovolt and 220 kilovolt

substations. Both CEB and Lanka Electricity Company (LECO) distribute electricity. In 2005, the total electricity sales were 7201 gigawatthours (GWh⁴), at an average price of 7.71 LKR/kWh (CEB average) excluding VAT. In 2005, electricity generation grew by 9.3%, and is expected to continue to grow at rates between 7-8% per year over the next fifteen years. The national grid serves electricity to an estimated 73.2% of the households, while about 3% of the households are served by off-grid systems based on solar power or community small hydro/wind/biomass power plants.

Imminent Crisis in Electricity Generation: The electricity generating system is presently operating with a constraint on capacity. For a reliable supply, the generating system should have had the planned Kerwalapitiya (300 MW) power plant operational by January 2007. With delays in bidding, financing and contracting of this power plant, the generating system would have to operate with a definite shortage of 200 MW in 2007, and a probable shortage of 405 MW in 2008⁵. The system reserve margin will drop to 9.5% in 2007 and to a mere 2% by 2008. Sri Lanka generating system has never had such low levels of reserve margin.

4.1.2 Energy Policy, Strategies and Targets

Sri Lanka recently revised National Energy Policy and Strategies⁶ consists of (a) Energy Policy Elements (b) Implementing Strategies and (c) Specific Targets, Milestones and Institutional Responsibilities. The major guiding policy elements are the following:

- (1) Providing Basic Energy Needs
- (2) Ensuring Energy Security
- (3) Promoting Energy Efficiency and Conservation
- (4) Promoting Indigenous Resources
- (5) Adopting an Appropriate Pricing Policy
- (6) Enhancing Energy Sector Management Capacity
- (7) Consumer Protection and Ensuring a Level Playing Field
- (8) Enhancing the Quality of Energy Services
- (9) Protection from Adverse Environmental Impacts of Energy Facilities

The implementing strategies are spelled-out for each policy element. The policy document further identifies a series of specific strategies, targets, actions, and milestones to achieve such targets. Institutional responsibilities are also defined for each strategy.

The investment plan presented here for the energy sector closely follows the National Energy Policy and Implementing Strategies, and the current policy guidelines of the Government of Sri Lanka.

4.1.3 Key Problems Areas

The problems facing the energy sector are many. The priority issues that require to be resolved urgently are the following:

Non-availability of electricity: About 25% of the population have no electricity at home.

Inadequacy and high cost of electricity generation: The generating system is presently facing a severe crisis in capacity, and the generation costs are high.

⁴ 1 gigawatthour is equal to one million kilowatthours (kWh).

⁵ Long-term Generation Expansion Plan, CEB, December 2005.

⁶ National Energy Policy and Strategies of Sri Lanka, Ministry of Power and Energy, April 2006. Public comments closed on 31st August 2006, and minor revisions are expected to be made shortly.

Inadequacy of Transmission and Distribution: Under-investment and delayed investments are causing severe constraints to the operation, reliability and the quality of electricity supply.

High cost and price of electricity: The cost of producing and delivering electricity exceeds 14 LKR/kWh (13.6 UScts/kWh). The average price of electricity is presently 10.75 LKR/kWh (10.5 UScts/kWh), while being high, is grossly inadequate even to cover the recurrent costs of supply.

High debt burden of the electricity sector: The electricity supply industry is burdened with a total debt in excess of LKR 90,000 million (USD 874.3 million), most of which is not being serviced.

High price of petroleum products: The rapid increase in petroleum prices is affecting all sections of the society and the economy.

4.1.4 Key Issues in the Sector

This ten-year investment plan for the energy sector addresses the following key issues:

- (i) Access to electricity
- (ii) Electricity tariff rationalisation, debt restructuring and targeted subsidies
- (iii) Fuel diversity and energy security in bulk power generation
- (iv) Renewable energy for electricity generation
- (v) Transmission and distribution network development
- (vi) Supply-side energy efficiency
- (vii) Demand-side energy Efficiency
- (viii) Energy sector knowledge management, planning and funding
- (ix) Reforms and Regulatory Developments

4.1.5 Current Status, Baseline Indicators and Strategic Targets for 2016

Access to Electricity

By end 2005, there were 3,340,147 household electricity customer accounts in the country, of which 96.8% were estimated to be active, indicating that 70.8% of the 4.56 million⁷ housing units had an active grid electricity connection (73.2% including inactive accounts). The 2003/2004 consumer finance survey reported the availability of electricity to be (both grid and off grid) 74.9%⁸. It is estimated that by end 2006, 75% of households would be using electricity from the national grid, while 3% are served by off-grid facilities. Provide electricity to 95% of households (87% grid and 8% off-grid) by 2015. The energy policy has also established an interim target to reach 86% by year 2010 (80% grid and 6% off-grid).

Strategy: Investments will be made on grid extensions as well as to establish off-grid energy services, to ensure access is available to 95% of households by 2016.

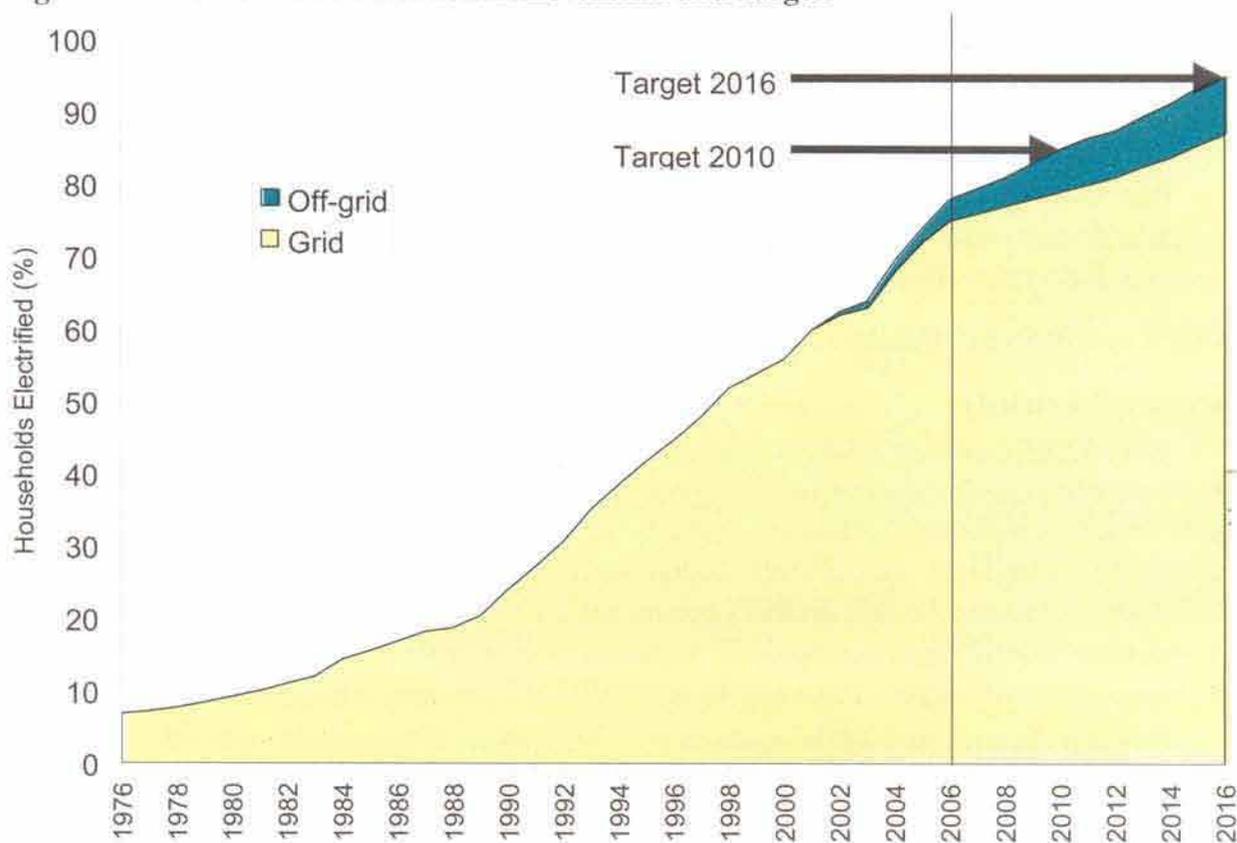
Background to the strategy: From its inception, CEB has been implementing rural electrification projects with Government equity investments and with internal funds. Since 1983, rural electrification investments were accelerated by implementing projects consisting of several hundred schemes, using concessionary financing from lending agencies. A total of eight such structured projects were initiated at a cost of USD 280 million, directly covering 636,000 new connections to households and small businesses. Four of these projects have been completed, while others are in various stages of implementation. In addition, the Government commits funds through the national budget for more schemes. The Government's policy is to provide electricity to every village.

⁷ Population 19,668,000 by end 2005, 4.31 persons per household.

⁸ Excluding Kilinochchi, Mannar and Mullaitivu districts in the Northern Province

Grid extension versus off-grid services: Extension of the national grid to distant villages is a technological and economic challenge. Economically feasible projects selected for implementation under the financing schemes typically cost over LKR 6 million to provide connections to a village of 200 houses. While there are some areas to be electrified by closing the gaps in the existing network, most villages yet to be electrified require longer Medium Voltage (MV) line extensions and long Low Voltage (LV) distribution lines. It is the Government's policy to identify such areas and invest on off-grid electricity services. Options available for such services are small hydroelectric, biomass and wind-based generating systems, and associated distribution lines to serve the local community, as well as stand-alone solar home systems. About 200 such community-based village electrification systems presently provide electricity to an estimated 10,000 houses. In addition, about 90,000 solar home systems have been purchased by household customers. Investment support for such off-grid services have come from the Government through the Provincial Councils and through the Renewable Energy for Rural Economic Development (RERED) project.

Figure 2- Household Electrification Achievements and Targets



4.1.6 Electricity Tariff Rationalization, Debt Restructuring and Targeted Energy Subsidies

Tariff Rationalisation and Debt Restructuring

Electricity prices of CEB and LECO as a whole have not been reflective of the sector's costs from time to time in the past, and continuously since 1999. While the tariffs do not bring-in adequate revenue to meet the expenses, there are weaknesses in the tariff structure that causes cross-subsidies among customer groups. Furthermore, improvements are required to encourage customers to manage their demand, by reflecting the cost of supply during different times of the day, in the tariff structure.

In spite of CEB making timely proposals to the Government to approve tariff increases, there are two principal reasons for the tariffs to remain below cost, particularly in the recent past:

- (a) The rapid increase of oil-burning power plants in the generation mix, much against the recommendations in the long-term plan, thereby raising the costs to levels significantly above the perceived levels of affordability of all customers
- (b) The absence of an independent mechanism to evaluate CEB's cost structure and tariff proposals, and affordability of customers

Electricity tariffs will be competitive when compared with other countries in the region, and will provide adequate revenue for electricity utilities to be operated as viable business entities. Tariffs will convey the costs of supply at each level of the network and at different times of the day, and will continue to encourage energy efficiency. CEB's debt burden will be reduced to a minimum level.

Strategy: Existing debts of CEB, both long-term and short-term, require to be restructured over 2006-7 for settlement from 2011 onwards, using a part of the savings from the new coal-fired power generation presently under construction (Puttalam) and in the planning stage (Trincomalee and Hambantota). Tariffs from 2008 onwards will meet all recurrent expenses of CEB, will be indexed to fuel prices, and adjusted on an annual basis on 1st April each year.

Targeted Subsidies

All household electricity customers receive 3 x 30 kWh blocks at LKR 3.00, 4.70 and 5.10 per kilowatt-hour (kWh)⁹, all of which are below the national average tariff of 10.75 LKR/kWh, clearly indicating a cross-subsidy. Furthermore, these customers are peak-time customers, when electricity supply costs are much higher than the average costs. Pricing of kerosene, used for lighting by an estimated 20% of households, has been persistently below cost. The present (September 2006) selling price is 45.50 LKR per litre, whereas the calculated cost exceeds 60 LKR/litre.

Strategy: Rationalise the subsidy scheme and provide a subsidy to low-income households to pay for energy used for lighting, be it for grid electricity, kerosene or off-grid electricity services. The existing subsidy will be replaced with a grant provided to Samurdhi beneficiaries of a value equal to 50% of the cost of 15 kWh of electricity.

4.1.7 Fuel Diversity and Security I: Conventional Sources for Electricity Generation

Sri Lanka's electricity generation share from renewable hydroelectricity was 94% in 1995, which declined to 39% by 2005, as a result of the entire growth in demand being served by oil-fired thermal generation. Repeated attempts to build coal-fired generating plants have not been successful yet¹⁰. The 1996 policy of building thermal power plants only with private financing has resulted in a proliferation of relatively small oil-fired power plants, which now produce electricity at prices ranging from about 11 to 17 LKR per kWh. The share of hydro energy from major power plants is expected to decline to 26.2% by 2016¹¹. CEB plans since 1981 have clearly and repeatedly shown that coal would be the most economical source of energy for bulk electricity generation to ensure a competitive price of electricity to customers.

The energy policy has placed a moratorium of oil-fired power generation¹², until non-oil sources reach 90% of electricity generation. Sri Lanka's per capita electricity consumption is about 365 kWh, and the demand grows by 7-8% per year. Lower cost electricity generating facilities such as coal and hydroelectric power plants could not be built in the past decade, in spite of several attempts. As such, the country-average cost of electricity generation has exceeded 8.50 UScts/kWh¹³. The cost of a delivered

⁹ After the tariff increase on 1st September 2006

¹⁰ One 300 MW coal-fired power plant is now under construction, commissioning due 2010.

¹¹ Long-term Generation Expansion Plan, CEB, 2005.

¹² Including fuels of which the price is indexed to oil, referring to fuels such as natural gas, liquefied or otherwise.

¹³ Reflects the benefit from major hydroelectric power plants. Average cost of thermal generation is about 13 LKR per kWh at 31st August 2006 fuel price levels. Excludes debt repayments, return on equity and depreciation.

unit of electricity has reached an estimated 12.65 UScts/kWh⁹, which is significantly higher than the prices of electricity in other countries in the region.

Overall Strategy: Build coal-fired power plants, and the remaining large/medium hydroelectric power plants. Supplement with non-conventional renewable energy. Impose a moratorium on oil-burning power plants until non-oil sources are developed to provide 90% of grid electrical energy.

Targets for 2016: Three coal-fired power plants with a total capacity of 2000 MW and the development of Upper Kotmale (150 MW, presently under construction), Broadlands (35 MW), Uma Oya (150 MW, capacity under review), Ging Ganga (49 MW) and Moragolla (27 MW) hydroelectric power plants. A target of 10% of grid energy to be supplied from non-conventional renewable energy sources by 2015.

The investment plan for bulk power generation: The large impact and savings expected through the implementation of the generation expansion plan, requires large investments, too. The investment strategy is mixed: neither fully GOSL/CEB investments nor fully private investments. GOSL and CEB will invest on major hydroelectric projects and in thermal power plants that are of a pioneering nature, such as the first coal-fired power plant. The private sector will be invited to develop selected medium-scale hydroelectric power plants and subsequent coal-fired power plants.

The on-going Phase 1 of Puttalam coal-fired power plant and its subsequent phases will be developed by GOSL/CEB. The Trincomalee coal-fired power plant will be developed as a private/public partnership, while the Hambantota coal-fired power plant will be open for a fully private investment. Uma Oya hydroelectric power plant (which is a part of a multi-purpose project) will be developed with concessionary financing, while Ging Ganga and Moragolla hydroelectric project will be open for private investment. Broadlands hydroelectric project will be developed by GOSL/CEB using concessionary financing.

4.1.8 Fuel Diversity and Security II: Non-conventional Renewable Energy (NCRE)

The national energy policy has identified fuel diversity as a strategic objective and renewable energy development to be a part of this strategy. NCRE generating facilities have been commercially developed by private investors since 1996, based on a standard power purchase agreement with CEB. This concession is offered to all power plants using a renewable source of energy or waste heat. The capacity should be less than 10 MW, and the power plants are embedded in the MV distribution network (ie they are not connected to the HV network, as in the case of large power plants). These facilities, mostly small hydroelectric power plants, now provide 3.2% of grid energy (2005). By April 2006, there were 52 such facilities producing 94 MW. A further 40 projects of capacity 105 MW have signed agreements, and some of these are in various stages of the construction process. Many more project applications are awaiting clearances from CEB and other regulatory agencies. Recent increases in prices of oil, on which CEB's electricity generation is largely based, would make the three leading sources of NCRE ie small hydro, biomass and wind energy, to be economically attractive to CEB in the immediate future. Cautious development and management of the NCRE portfolio can assist CEB to cushion the customer prices in the face of high oil prices, particularly over 2007-2009, while contributing to fulfil the policy of fuel diversity.

Strategy: Relieve constraints on the grid, introduce technology-specific purchase tariffs, arrange financial resources and develop NCRE for electricity generation to achieve long-term benefits of lower-cost electricity.

Target: Ten per cent (10%) of grid energy shall be supplied from NCRE by 2015. A technology-specific purchase tariff for NCRE will be introduced from 2007, and Sri Lanka Energy Fund (SLEF) will bridge the difference between the value of NCRE energy to CEB and the NCRE tariff.

There are three immediate barriers to the development of NCRE, (a) purchase prices at which NCRE projects are viable to investors, the “value” of NCRE to CEB and its impact on customer electricity tariffs (b) constraints in the local MV network to interconnect such power plants, and (c) limitations in the HV grid by way of transmission constraints, control issues and ancillary costs.

(a) Price: A recent study¹⁴ recommends a multi-tier, cost-based, technology-specific tariff to purchase electricity from NCRE projects. This purchase tariff will be multi-tiered (to cushion the high expenses of a NCRE project during the period of debt repayment) and it will reflect a 20% return on equity to the investor throughout a 15-year period. Thus, there would be certain requirements to invest in the group of NCRE projects by way of financing a portion of the first tier tariff, to harness the benefits of long-term, lower-cost energy. SLEF already established, is expected to be formalised shortly, and SLEF will act as the buffer between the proposed cost-based tariff to be paid to NCRE, and the price at which CEB will buy NCRE into the grid. The CEB price for NCRE will be driven by the avoided cost (of thermal energy), which in turn is determined by oil (and later coal) prices. The objectives of this pricing strategy are to provide a viable, predictable purchase tariff to NCRE developers (in place of the present annually revised tariffs), for CEB to purchase NCRE at a portion of the avoided costs (in place of the present policy of 100% avoided costs being paid to NCRE), and for SLEF to act as the buffer between CEB and NCRE developers to cushion the fluctuations.

(b) Constraints to Connect: The small hydroelectric potential is concentrated in the Central, Sabaragamuwa and Uva provinces. The potential developments exceed the capacity of the MV lines and grid substations in these areas. Grid substations are primarily designed to serve customer loads, meeting the required reliability constraints. NCRE projects feed power to the HV network through these customer grid substations, which should continue to uphold the reliability. This requires the grid substations to be expanded with more transformer capacity. Similarly, the MV lines between the grid substations and the NCRE developments have to be strengthened. In certain cases, entirely new MV lines have to be built over long distances, adding a significant cost to the NCRE development, which is not covered in the proposed purchase tariffs. SLEF would be used to channel funds to these developments as well, thus reducing the burden on both the NCRE developers and CEB to invest on MV network and grid substation strengthening.

(c) Constraints on HV: Once NCRE power is on the HV network, it has been identified¹⁵ that certain constraints such as HV transmission line overloading would occur, particularly in the Central and Sabaragamuwa provinces. Furthermore, as NCRE developments are embedded in the MV network and not dispatched (in the case of wind, it is non-dispatchable), adequate spinning capacity and enhanced controllability should be established in the CEB’s generating system, as NCRE developments progress. SLEF would be used to channel funds to these developments as well, thus reducing the burden on both the NCRE developers and CEB to invest on HV network strengthening, and to meet any additional ancillary costs.

¹⁴ Review of Tariff Setting Methodologies for Grid Connected Small Power Producers, RERED Project, DFCC Bank. 2006.

¹⁵ Technical Assessment of Sri Lanka’s Renewable Resource Based Electricity Generation, RERED Project, DFCC Bank. 2005.

The investment plan: All the investments on NCRE have so far been by the private sector, and the private sector will continue to play the leading role in the future as well. Funds would be required to invest on relieving of grid constraints, and to cushion the adverse impacts on customer tariffs in some years, as a result of the change-over to a cost-based purchase tariff. Please see Annex 3 for more details.

Figure 3- Targeted Fuel Diversification in Electricity Generation

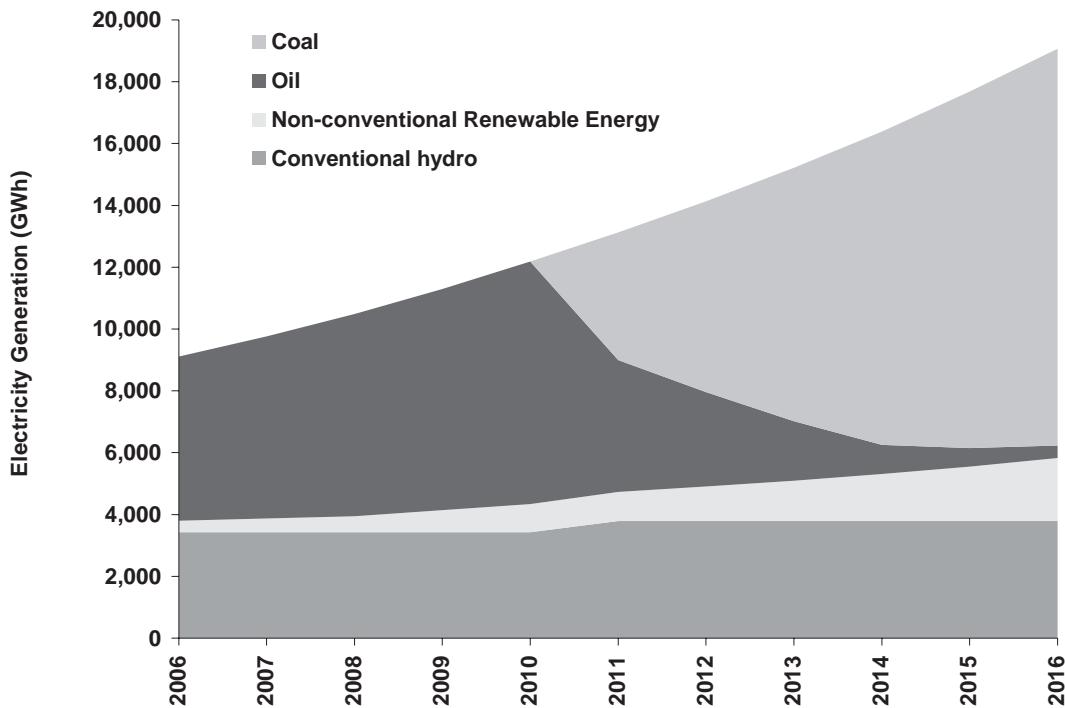
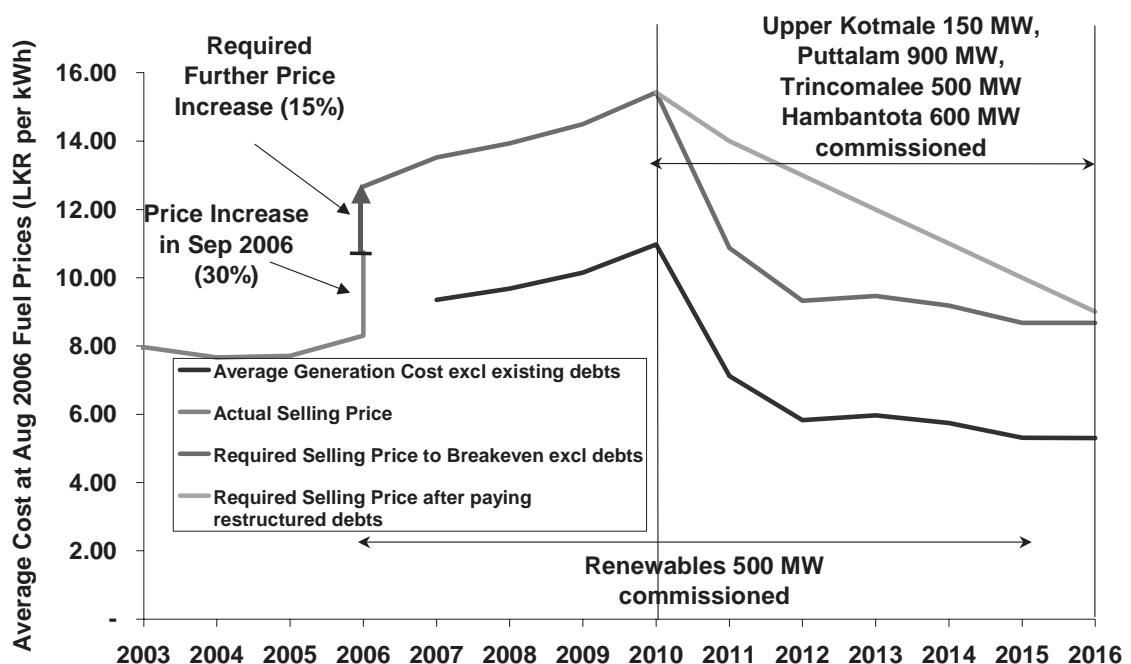


Figure 4- Indicative Impacts of Diversification on CEB Finances and Customer Prices



Basis: Market fuel prices in Aug 2006, Coal USD 85 per MT, excludes repayments for existing loans until 2010, excludes depreciation and return on equity for CEB.

4.1.9 Transmission and Distribution Network Development

Rapid rural electrification and the demand growth of existing household customers require significant and continuous improvements to the distribution network. These improvements are required to serve the additional customer demand as well as to improve the reliability and quality of supply. Industrial and commercial developments, scattered as well as centred on the industrial zones, too cause constraints in the network. In the MV distribution network, investments have been significantly delayed owing to financial limitations, causing overloading, poor reliability and poor voltage at many locations in the country. Areas with particularly weak and widespread MV network problems include the North-central, Eastern and Uva provinces.

The LV distribution network too requires continuous improvements to meet the expansion in housing and commercial developments, and to provide additional distribution substations to ensure a reliable electricity supply at specified quality.

The demand growth on the MV network requires matching investments on the transmission network and grid substations. In addition to expansion, the ageing sections of the network have to be replaced, and outdated control and protection systems have to be upgraded.

Strategy: Invest on transmission and distribution network expansion and improvements according to CEB plans, to ensure the stipulated quality and reliability of electricity supply is met.

Target for 2016: Achieve a transmission and distribution network meeting the stipulated reliability and quality criteria.

The investment plan: Routine LV upgrades of CEB and LECO are met with internal cash generation. MV and HV network development by CEB requires larger investments, for which funds have to be secured either on concessionary or commercial terms.

4.1.10 Energy Efficiency and Demand Management on the Supply-side

4.1.10.1 Network Loss Reduction

CEB's transmission and distribution losses have been between 15-17% of net generation over two decades, but increased to about 21% in year 2000, owing to excessive number of unmetered connections, which have now been reduced to a minimum. While the losses have now reverted to the pre-2000 levels, they are well above the optimal levels of around 12%. In 2005, the transmission and distribution loss was estimated to be 16.7% of net generation. These additional losses are partly technical (overheating cables and transformers, owing to excessive current caused by unplanned connection of new customers, non-implementation of planned improvements to the network owing to financial constraints), and a smaller share is commercial (unmetered connections, metering errors and theft).

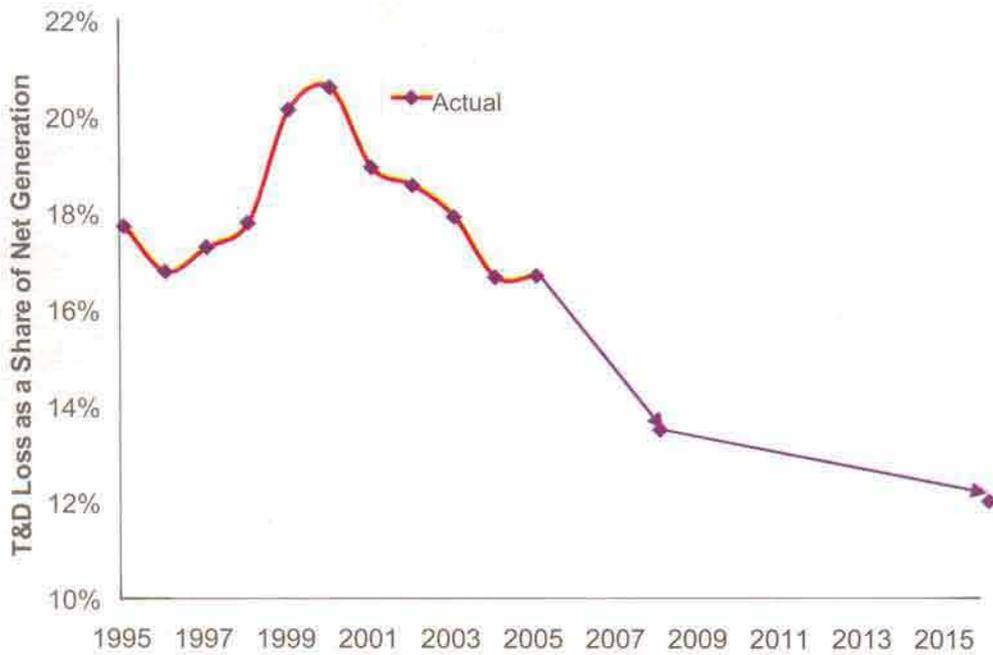
Technical losses can be optimised, but they cannot be totally eliminated. Commercial losses can theoretically be eliminated in total. Commercial losses can be minimised with improved management of metering systems and surveillance. Technical losses can be reduced by identifying sections of the network where losses are high, and then replacing such cables and transformers, reorganising supply arrangements, to ensure losses are reduced to an economically optimal level. The high cost of generation of electricity presently prevailing in Sri Lanka, and the consequent value of energy lost, make loss reduction a prime

area for immediate investment. The low customer density in suburban and rural areas in Sri Lanka cause inherently higher network losses when compared with losses in urban areas, both in Sri Lanka and abroad. In this context, LECO which operates in urban areas, has reported a loss level of 5.3% of purchases from CEB, which is perceived to be highly satisfactory.

Strategy: Accelerate the implementation of improvements to the identified sections of the transmission and distribution network where losses are high, and replace/upgrade the network to reduce losses, which would also improve service quality in terms of voltage. Implement a parallel effort to upgrade and improve the meters and the metering system, and to conduct surveillance on theft.

Target for 2016: Reduction of total technical and commercial losses (of the CEB network) to 12% of net generation. Interim target: 13.5% by 2009.

Figure 5- Transmission and Distribution Loss Reduction Targets



4.1.10.2 Energy Efficiency Improvement on the Demand-side

End-use efficiency improvements have so far been largely price-driven. There are no regulatory controls on energy efficiency. The increasing prices of petroleum products and electricity have been the principal signal to customers to improve end-use efficiency and implement fuel switching. Concessionary financing to identify and implement energy efficiency projects have been available for over a decade, and the enthusiasm to access these funds have been limited.

In the household customer group, the major intervention has been in the popularisation of Compact Fluorescent Lamps (CFLs), through an easy-payment scheme. There was no parallel intervention in the industrial and commercial sectors to promote a specific energy efficient device.

In 1994-5, a pilot program was launched by the Energy Conservation Fund (ECF), implemented by CEB, to install CFLs in 600 households, and monitored for one year. Subsequently, CEB purchased 100,000 CFLs in the 1995-6 period, and directly sold the lamps at a subsidised rate. It is estimated that such lamps caused a 5 MW reduction of peak demand. Thereafter, a large-scale program involving

CFL suppliers and manufacturers was launched. To purchase up to three CFLs, CEB and LECO provided interest-free loans to customers, repayable in 12 instalments, recovered through the monthly electricity bill. An independent testing facility was established to authorise the different brands of CFLs. It is estimated that a peak demand saving of 45 MW would have been achieved through this program over 1997-99, with an annual energy saving of 66 GWh/year.

This intervention in CFL popularisation presently remains weak since 2003. It is estimated that there are about two million CFLs in operation in the country, whereas the potential application for economic savings (from customer point of view) is estimated to be over 5 million. It is necessary to revisit the program, address the shortcomings, and re-launch the program for CEB/LECO supported distribution.

There have been no significant regulatory interventions to compel the customers to establish good energy management practices, use standardised/energy efficient devices and appliances. In year 2001, a new initiative was taken by the government in a collaborative effort between Sri Lanka Standards Institute (SLSI) and CEB to launch a scheme to label appliances based on their energy efficiency. The following devices are presently included in the labelling scheme: (a) Magnetic ballasts used for fluorescent lamps (b) CFLs. A star rating based on SLS 1225 was granted to CFLs. These star ratings presently remain voluntary.

Strategies: (1) Introduce mandatory labelling of appliances for energy efficiency, energy management practices, conduct consumer education and develop the capacity in both state and private sector to provide energy efficiency services. (2) Re-launch the CFL popularisation program. (3) Facilitate investments on energy efficiency.

Targets: (1) All appliances which substantially contribute towards electricity demand will be identified and labelled based on their energy efficiency by end 2010. Appliance labelling programme will be made mandatory to identified appliances by mid 2007. Benchmarks on energy intensity of specific industries will be established by end 2007. Specific benchmarks for energy consumption of commercial, transport and domestic sectors will be established by end 2008. The Energy Efficiency Building Code will be updated and made mandatory to state sector entities by end 2007, and to others by 2009. (2) Further introduce 4 million CFLs by end 2007 (3) Support state institutions to implement energy efficiency projects, establish energy efficiency improvement fund by 2007.

Investment Plan: Demand-side efficiency improvements in commercial and industrial sectors are entirely with private-sector financing and direct contributions by users. The government will invest on customer education, establish the regulatory regime, provide technical support and facilitate concessionary financing. Limited direct investments will be made in state sector institutions. The CFL popularisation program in the domestic sector will be partly-funded by the government. The program targets households using less than 90 kWh/month, by providing one free CFL to each household, and another CFL at half the cost.

4.1.10.3 Energy Sector Knowledge Management, Planning and Funding

Mass communication through various media is essential to promote rational development and use of energy. In particular, energy efficiency, demand management and conservation require significant efforts for customer outreach, to carry the message effectively to energy customers. The present work done by ECF, and to a limited extent by CEB, LECO and petroleum companies, requires to be strengthened.

A further area of focus is the development of the capability of Provincial Councils to provide development and advisory services, particularly to off-grid electricity customers, and on energy efficiency in general.

Sri Lanka's statistics on electricity and petroleum fuels on the supply-side are maintained and published by CEB and CEYPETCO, while information on sales from the privatised entities are summarised and published. Biomass supply and consumption estimates are based on periodic surveys. The demand-side information on petroleum and electricity are available to a limited extent. ECF publishes the Sri Lanka Energy Balance¹⁶ every year, by collecting this information, checking the missing areas, including estimates for biomass, conducting surveys to establish additional information (particularly on the demand-side), and presenting the data in both aggregate and disaggregate forms. The national energy balance uses an internationally accepted format. Sri Lanka energy database is complete and available yearly since 1970.

Integrated National Energy Planning (INEP) is practiced in several countries to integrate the subsectoral plans, examine policy implications, and to prepare a national-level plan. Sri Lanka has not developed an INEP yet, but subsector plans are available in the electricity industry, and to a limited extent, in the petroleum industry. There are no detailed, official plans developed for the biomass supply. **Strategies:** (a) Strengthen communication on energy through media and direct contacts (b) Strengthen research and analysis on the sector (c) Establish Provincial Energy Bureaux (d) Further develop the national energy database, to ensure it serves as a useful tool to conduct policy analysis (e) Establish Integrated National Energy Planning (INEP) (f) Formalise Sri Lanka Energy Fund (SLEF).

Targets: (a) Establish and maintain Provincial Energy Bureaux by 2007 (b) Establish a significantly disaggregated energy demand database by 2008 (c) Establish a 20-year Integrated National Energy Plan by 2008, and revise once in two years. (d) Make the Sri Lanka Energy Fund operational by end 2006.

4.1.10.4 Reforms and Regulatory Development

The Government has identified the following to be the key interventions required to address the issues in the electricity subsector¹⁷:

- (i) Immediate adjustments of the tariff to at least reflect the direct costs.
- (ii) Urgent implementation of the lower cost large scale thermal base-load generating plants
- (iii) Restructuring the power sector by unbundling the CEB and establishing independent, self contained and commercially oriented entities fully owned by the CEB

Strategies, targets and investments to implement (i) and (ii) are listed in previous sections of this investment plan. This section gives the essential investments required to facilitate and improve the performance of the existing operations of CEB as well as a future reformed industry.

Strategy: Establish a state-of-the art operations management, energy accounting and management information system for CEB.

Targets: (a) Establish a continuous metering system for energy transfers between CEB divisions and regions by 2008 (b) Upgrade the management information system (c) Establish a transparent power plant dispatch program by 2008.

¹⁶ Sri Lanka Energy Balance is available in a document form, summarising the sector performance and data. The CD version has user-friendly menus with access to data on all the subsectors for the period 1970-2003.

¹⁷ Concept for Power Sector Reforms, Ministry of Power and Energy, June 2005.

Background to the Strategy: In anticipation of the proposed regulatory reforms and unbundling, CEB is already restructured into the three businesslines (divisions): generation, transmission and distribution. The distribution division is further structured into four regions: Regions 1, 2, 3 and 4. Assets, operations, accounting and staff are already aligned to these six businesslines. A principal requirement to enhance operations of existing business units and a future unbundled industry would be a comprehensive metering system to account for the energy flows from generation to transmission, onwards to the distribution regions. Owing to network topology, there are energy transfers between the distribution regions as well. An associated requirement is a comprehensive management information system. To improve the transparency of generation dispatch, a state-of-the art system should be established.

Table 6- Summary of Key Issues, Strategies and Targets

Issue	Strategy	Indicator	Present (end 2006) Status	Interim Target	Target for 2016
Access to electricity	Invest on grid extensions and off-grid energy systems	Households electrified	Grid: 75% Off-grid: 4%	Grid: 80% Off-grid: 6% by 2010	Grid: 85% Off-grid: 10%
Electricity tariff rationalisation, debt restructuring and targeted subsidies	Introduce cost-reflective tariffs, re-structure sector debts to minimise burden, a common subsidy for energy used for lighting	CEB profitability, level of debt reflected in tariffs, elimination of cross-subsidies	Large cross-subsidies to household electricity customers, kerosene	Remove both electricity and kerosene subsidies and replace with a targeted subsidy for energy use for lighting, by 2008	
Fuel diversity and energy security in bulk power generation	Moratorium on oil/oil-related fuel burning power plants, diversification to coal and NCRE	Resource diversity, average production cost of electricity, share of indigenous energy for electricity production	Hydro: 37.7% Oil: 58.2% NCRE: 4.1%	Hydro: 21.4% Oil: 3.3% Coal: 65.2% NCRE: 10.0% by 2015	Hydro: 19.9% Oil: 2.2% Coal: 67.3% NCRE: 10.7%
Renewable energy for electricity generation	Relieve grid constraints, arrange finances to accelerate NCRE development	Share of NCRE on the grid, impact on average generation cost	NCRE share: 4.1%	NCRE share: 7.5% by 2010 10.0% by 2015	NCRE share: 10.7%
Transmission and distribution network development	Invest on T&D to ensure safety, quality and reliability of supply	Compliance with reliability indices, optimum network losses, statutory limits on quality of supply	Widespread violations of reliability criteria	Essential reliability levels will be established by 2010	Endeavour to reach international norms of reliability and supply quality
Supply-side energy efficiency	Accelerate investments and management efforts to reduce technical and non-technical losses	Technical loss in transmission, technical loss in distribution, non-technical losses	Total T&D loss 16.7% of net generation	Total T&D loss 13.5% of net generation by 2009	Total T&D loss 12.0% of net generation by 2016
Demand-side energy Efficiency	Mandatory labelling of appliances, consumer education, energy efficiency services, CFL popularisation, investments on energy efficiency	Energy Efficiency (EE) codes and appliance labelling, efficiency appliance popularisation, customer investments on energy efficiency	Two devices carry EE labels, one EE financing project	All appliances labelled by 2010, selected appliance-labelling mandatory by 2008, EE building code mandatory by 2009.	All codes and labels will be mandatory
Energy sector knowledge management, planning and funding	Development of integrated national energy plan, enhanced energy sector database and analyses, establish SLEF to channel funds to energy efficiency, rural energy and NCRE, facilitate rural energy development	Publication and regular updates of the integrated national energy plan, publication of Sri Lanka energy balance, establishment of SLEF, establishment of provincial energy bureaux.	Sub-sectoral plans only, Energy balance published, SLEF operational	Provincial energy bureaux by 2007, Integrated national energy plan by 2008, Disaggregated energy demand database by 2008, formally constitute SLEF	Continuation of work to ensure development and dissemination of knowledge on the energy sector.
Reforms and regulatory development	Establish a state-of-the art operations management, energy accounting and management information system for CEB	Accurate energy accounting across CEB divisions, transparent dispatch of power plants	Transfer metering inadequate, dispatch procedures based on off-line, manual systems	Boundary metering installed by 2008, transparent dispatch system operational by 2008	

4.1.11 Interventions to Implement the Strategies

This section summarises the specific interventions required to fulfil the strategies and targets spelled-out in the previous section. Only the specific interventions are listed in this summary. Interventions that are feasible within institutional policies and budgets, and those that do not require significant financial commitments are not listed.

(i) Access to electricity

- (a) **Grid:** Urgently arrange finances for the two projects already formulated (RE8 and RE9), and one additional project (RE10), to continue with the current pace of activity in grid-connected rural electrification. Corresponding strengthening of HV transmission and MV distribution network would be an essential part of this strategy.
- (b) **Off-grid:** Allocate funds for investment on off-grid energy systems. It would be essential to examine the current commitments of the RERED project, ear-mark GOSL commitments, and to formulate a plan of action and funding to meet this goal.

(ii) Electricity tariff rationalisation, debt restructuring and targeted subsidies

- (a) **Tariffs:** Announce the withdrawal of subsidies and cross-subsidies to electricity customers, with specific target years for CEB to breakeven (eg: 2008) and be profitable (eg: 2012).
- (b) **Debt Restructuring:** Financial resources are urgently required to initially conduct a study and to prepare a plan, and then to restructure both the short-term (cashflow bridging) debts and long-term (project-related) debts, to ensure that tariffs in (a) above are affordable and regionally competitive. Savings from coal-fired, hydro and NCRE generation projects to be used to repay the restructured debts, starting in year 2011.
- (c) **Targeted Subsidies:** Dedicate financial resources and implement the stated policy on targeted subsidies (for energy use in lighting) by 2007.

(iii) Fuel diversity and energy security in bulk power generation

- (a) **Puttalam Coal-fired Power Plant Phases 2 and 3:** Immediate decision on the project structure and finances to ensure this additional capacity is available by 2012.
- (b) **Trincomalee Coal-fired Power Plant:** Already decided to be a private-public partnership project. Project structuring, confirmation of partner equity and debts are urgently required.
- (c) **Hambantota Coal-fired Power Plant:** Decision on project financing mode (presently designated as an IPP), site identification, project Request for Proposals (RFP) documents and financing required during 2007.

(d) Medium-scale Hydroelectric Projects

Broadlands (GOSL/CEB): Financing for design and construction

Uma Oya (GOSL/CEB): Financing for a study to finalise the concept, design and implementation.

Moragolla and Ging Ganga (Private): Preparation of RFP and the procurement process to be initiated immediately.

(iv) Renewable energy for electricity generation

- (a) **NCRE Development Plan:** Investment on the development of a plan

- (b) **Relieve Grid Constraints:** Immediately relieve all localised grid-constraints to absorb NCRE, with the respective small power developers meeting 50% of the costs of such upgrades. A detailed plan to be prepared by end 2006.
- (c) **Technology Specific Incentives:** Implement the technology-specific purchase tariff already recommended, from January 2007. Assign funds to SLEF to bridge the gap between the “value” of NCRE to CEB and the tariffs to be paid to NCRE. Carbon credits would not be adequate to bridge the gap.
- (d) **Constraints and Costs at HV:** Commission a study to match the NCRE development plan (a) above to fully identify the constraints and costs of overcoming the constraints to meet the national NCRE target and development plan.

(v) Transmission and distribution network development

- (a) **Financing for New Transmission Projects:** Fourteen new transmission projects (Total cost 7,915 million LKR) require urgent implementation. These projects have been identified and required to be built and be operational several years ago, but they have been delayed owing to non-availability of funds.
- (b) **Financing other transmission developments:** Eight rehabilitation projects, including the proposed new System Control Centre, are awaiting finances and require urgent implementation. Required finances are estimated to be 1,655 million LKR.

(vi) Supply-side energy efficiency

- (a) **Financing of loss reduction:** To achieve the 3% reduction in transmission and distribution losses over 2007-2010, the estimated investment is 6,200 million LKR.

(vii) Demand-side energy Efficiency

- (a) **Urgent need for a consumer education campaign:** In the face of the imminent crisis in the electricity supply over 2007-9, and the steep increase in oil prices, urgently finance and organise to upgrade the on-going publicity effort.
- (b) **Urgent finance for the CFL Program:** As an urgent measure to overcome the imminent crisis of 2007-8, implement the CFL program (LKR 1428 million over 2006-7)
- (c) **Mandatory energy auditing and implementation:** Finance the mandatory energy auditing and implementation at state institutions.

(viii) Energy sector knowledge management, planning and funding

- (a) **Formalise the Sri Lanka Energy Fund:** Much of the funds to fulfil SEA’s mandate on energy efficiency, off-grid/rural energy and NCRE development are to be channelled through SLEF. The initial investment is estimated to be 340 million LKR.

(ix) Reforms and Regulatory Development

- (a) **Implement the boundary metering initiative:** The metering system will enable the energy input accounting in each Region to be accurate, thus making the Region accountable for its own profitability.
- (b) **Management Information System and Transparent Dispatch Procedure**

4.1.12 Method of Financing by Source

The investment plan identifies the overall investments required to ensure that the policies and the strategies are fulfilled, and the goals are achieved. In terms of investments, the energy policy specifies the following related to investments:

- Necessary steps will be taken to protect the interests of the consumers, and to ensure fairness and predictability to all energy sector investors.
- Oil and natural gas resources will be explored and commercially exploited; both public and private sector investment will be promoted in this regard.
- The energy sector will be reformed and restructured to enable both state and private sector investments in its development. While the sector's policy-making and regulation will remain in the state sector, its operation and management will be open to both the state and the private sectors.
- PUCSL will be empowered to formulate project selection principles for energy sector supply-side investments.

The investment plan identifies the following to be the possible sources of finance for each of the investment proposals:

Government (GOSL): The Government is already financing non-targeted subsidies, which will be converted into targeted subsidies over 2007-8. Other sector investments which relate to routine activities would also be financed by GOSL.

Internal Cash Generation (ICG): Routine investments such as for LV improvements will be funded through internal cash generation of the electricity utilities.

Private Sector Investments (PSI): The investment plan clearly identifies investments expected to be made entirely by the private sector. These include investments on NCRE and specific larger conventional power plants.

Public/private partnerships (PPP): Certain investments are earmarked to be open for the private sector to be in partnership with the electricity utilities, particularly in electricity generation.

Cleaner Development Mechanism (CDM): Some of the investment gaps are expected to be bridged by carbon funds, particularly those related to renewable energy and energy efficiency.

Concessionary Long-term Finance (CLF): Investments expected to be funded with concessionary financing through bilateral and multilateral lending agencies are separately identified. These are typically rural electrification (both grid and off-grid), and the expansion of the transmission and distribution network.

Capital Market Finance (CMF): It is expected that certain projects will be implemented by CEB, with financing from commercial sources.

Direct Investments by Users (DIU): Users too are expected to contribute to investments to fulfil the strategies, such as in meeting the costs of energy efficient equipment.

Petroleum Exploration, Development and Production

Since 2001, Sri Lanka has been actively engaged in petroleum exploration activities in the territorial waters of the Mannar Basin. Assessment of the petroleum in the Mannar basin under the jurisdiction of Sri Lanka shows potential signs for oil and gas accumulation. In fact significant amounts of petroleum have been already discovered in the Indian side of the Cauvery basin.

Exploration, development, production and decommissioning are the main phases of oil and gas activity. Exploration consists of 2, 3 dimensional seismic surveys and exploratory drilling to determine the existence of commercial petroleum reserves. The development phase begins once a gas or oil field has been declared a commercial discovery. It includes design, construction and installation of production

equipment including means to transport oil and gas. Production over a long time could bring immense benefits to the economy through employment, use of local goods and services, royalties, other taxes and profit sharing.

At present Sri Lanka stands in the explorations stage and the next ten year period will concentrate on other phases of oil and gas activity. In order to maximize the benefits of this activity, considerations will be given to training, infrastructure development and assistance to local companies to capitalize on offshore oil and gas projects.

Table 7- Summary of Sector Investment Requirements

Projects	INVESTMENTS OVER 2007-2016	Investment Requirements (LKR million)										
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
1 Electrification of Households	FC	16,676.7	4,027.4	2,189.0	1,200.0	1,444.0	1,466.0	1,110.1	1,354.1	1,232.1	1,410.1	1,244.0
	LC	7,377.8	-	418.0	627.0	979.5	946.8	881.3	1,233.8	1,057.6	881.3	352.5
2 Tariff Rationalisation, Debt Restructuring and Targeted Subsidies	TOTAL	181,784.1	126,100.2	26,531.3	4,200.8	4,737.0	3,479.7	3,097.9	3,341.6	3,412.9	3,385.5	3,497.3
3 Fuel Diversity, Energy Security and Reliability in Bulk Power Generation	FC	343,951.6	23,380.4	32,761.4	55,097.7	78,535.3	48,195.3	31,546.3	27,239.3	24,342.6	17,615.0	5,238.3
	LC	89,376.6	3,912.3	5,737.5	6,144.1	8,594.7	8,256.4	10,598.0	14,972.5	16,072.2	11,630.3	3,458.6
4 Fuel Diversity: Renewable Energy for Power Generation		56,146.1	2,726.7	5,426.7	6,774.8	6,124.8	5,124.8	6,125.8	6,125.8	6,125.8	6,128.8	4,462.1
5 Transmission and Distribution Network Development	FC	57,755.3	12,198.2	13,228.4	6,284.1	4,412.3	3,312.7	8,809.0	6,364.0	1,436.6	850.0	860.0
	LC	19,980.7	4,151.2	4,579.6	2,131.8	1,487.8	1,327.8	1,998.0	1,675.2	919.4	850.0	860.0
6 Supply-side Energy Efficiency	TOTAL	9,580.0	948.0	1,204.0	1,248.0	904.0	836.0	872.0	812.0	860.0	916.0	980.0
7 Demand-side Energy Efficiency	TOTAL	5,060.0	1,540.0	1,098.0	642.0	665.0	180.0	145.0	140.0	255.0	255.0	140.0
8 Energy Sector Knowledge Management, Planning and Funding	TOTAL	28,851.1	273.5	495.8	957.8	642.2	2,930.0	3,684.3	3,318.2	6,442.0	5,253.7	4,853.5
9 Reforms and Regulatory Development	FC	1,550.0	775.0	775.0	-	-	-	-	-	-	-	-
Grand Total for Energy Sector		818,090.2	180,032.9	94,444.6	85,308.1	108,526.7	77,055.6	68,867.6	66,576.4	62,156.2	49,175.7	25,946.4

LC: Local Cost, FC: Foreign Cost

Table 8- Method of Financing Sector Investments

		TOTAL 2007-2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
On-going Projects	On-going	77,218	20,205	21,172	23,268	12,573	-	-	-	-	-	-
Government of Sri Lanka	GOSL	63,596	6,631	4,675	4,993	5,117	6,036	6,243	5,965	9,099	7,718	7,130
Finance for debt restructuring	DR	143,469	120,760	22,708	-	-	-	-	-	-	-	-
Internal Cash Generation	ICG	18,991	2,025	2,025	2,025	1,704	1,762	2,204	2,146	1,700	1,700	1,700
Independent Power Producers	IPP	203,413	2,192	4,892	7,413	11,789	18,931	23,877	39,859	46,339	35,169	12,954
Public-private Partnerships	PPP	56,650	-	2,946	14,842	27,305	11,557	-	-	-	-	-
Cleaner Development Mechanism	CDM	6,547	-	202	288	429	535	686	847	1,012	1,182	1,366
Concessionary Donor Finance	CDF	239,437	27,720	35,325	31,978	49,110	38,236	34,503	13,031	3,329	3,407	2,797
Capital Market Finance	CMF	6,770	-	-	-	-	-	1,354	4,739	677	-	-
Direct Investment by Users	DIU	2,000	500	500	500	500	-	-	-	-	-	-
TOTAL		818,090	180,033	94,445	85,308	108,527	77,056	68,868	66,576	62,156	49,176	25,946

4.2 Telecommunications

Introduction

The modern telecommunications infrastructure is an essential requirement for rapid economic and social development of the country. Sri Lanka is moving towards a fully liberalized telecommunications market environment. At present there are 3 fixed line telephone service providers, 4 Cellular phone service providers and 32 internet service providers in Sri Lanka. The telecommunication sector consists of 1,130,920 fixed access telephones, 3,084,845 Cellular phones, and 111,259 Data communication

(Internet & Email) connections, 6,237 public pay phones and 233 trunk mobile radios spread across the country.

Issues in the Telecommunications Sector

- Clearing the backlog for fixed telephone lines

Total waiting list is about 235,000. A systematic programme for clearing the backlog is currently not available.

- Sharing of infrastructure facilities

An appropriate system is not available for sharing of towers.

- Developing an appropriate frequency allocation policy

Telecommunication facilities especially in rural areas, is very much depend on the use of radio frequency spectrum. Wireless and cellular mobile operators, broadcasters, Civil Aviation Authority and security forces use this scare resource. It is therefore essential that spectrum be utilized efficiently, economically, rationally and optimally.

- Improving access of rural population to telecommunications facilities

There is a wide disparity between urban and rural areas in the country in terms of the availability of telecommunications facilities in spite of the fact that there are 3 operators providing telecommunications facilities in Sri Lanka for a considerable period of time.

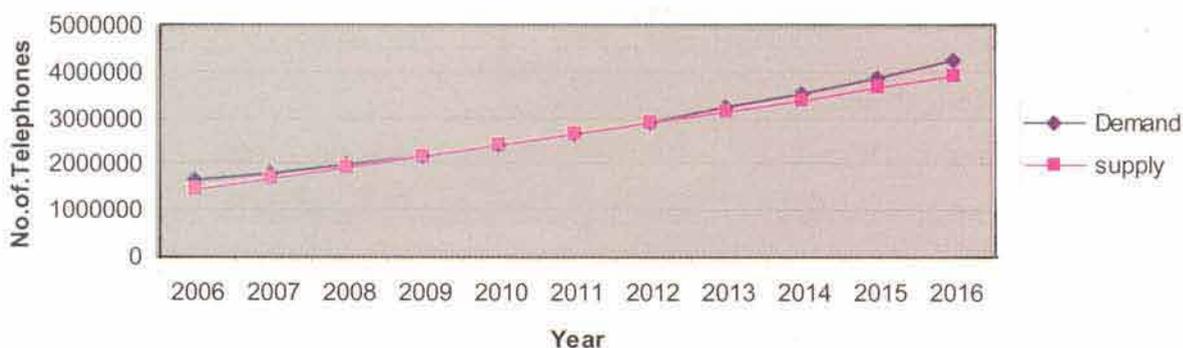
The Vision for the telecommunications sector will be a modern advanced telecommunications Network freely available to all citizens at a reasonable cost.

Targets for the next 10 years

It is important to keep pace with the rapidly developing technology in the telecommunications industry. Therefore the medium term objective would be to develop a nation wide sophisticated telecommunications network using optic fiber cable, microwave and satellite systems to link rural and urban areas with the world. Accordingly, the following sector targets have been set

- Increase the teledensity –fixed (number of fixed access telephones for every 100 persons) from 7.5 in 2006 to 18.2 in 2016.
- Increase the number of Cellular phones from 4,284,256 in 2006 to 32518562 in 2016.
- Increase number of Data communications (Internet and Email) connections from the current level of 125,800 to 252084 by the year 2016.

Demand and Supply in Telecommunication sector-Fixed Access Telephones



Future Directions

- The well developed telecommunications network provides a range of services to domestic and corporate subscribers including domestic and international voice, internet services, data services, ISDN and ADSL .
- At present, several commercial institutions in Sri Lanka have begun to operate their business through on line electronic commerce system and this will benefit to people in some of the urban areas only. By the year 2016, with the well expanded telecommunication network, Activities relating to the electronic commerce can be expanded and people in everywhere will have adequate opportunities to take these services.
- With the establishment of common telecommunications system with internet facilities in every village , people can participate with the global market and community in order to know the latest news , share information and find the local market as well as international for their products such as agriculture , leather.
- There are a lot of employment opportunities in the field of telecommunications sector in abroad and availability of trained persons of this field is limited The necessary steps will be taken to open training centers for training youth in telecommunications in order to equip them for employment abroad.
- Telecommunications network infrastructure will be put throughout the country to utilize the telecommunications facilities and people will be able to access the government , financial and other services such as issue of passport, birth certificate offered by the government without wasting time from their home..

Policy Highlights

Investment

The better relationship and cooperation between public sector and private sector lead a rapid development of the telecommunication sector and are important to the realization of the objectives.

There is no public investment in the field of telecommunications sector and private sector dominates this sector. Therefore in order to maintain the sector in competitive manner level playing field will be encouraged.

Tariff

The tariff policy is an essential element of the telecommunications sector, especially when the market competition is limited. The formulation of tariff will be done taking into account the interest of consumers as well as investors. Consumers will be benefited from rational chargers and investors will be benefited from a reasonable rate of return to their investments. An annual tariff revision will be done through implementation of a transparent method. The Telecommunications Regulatory Commission of Sri Lanka will be required to have public consultations on tariffs and to develop an appropriate formula for periodical revisions.

Human Resources Development

Well trained human resources in telecommunications sector play an important role in achieving the sector objectives. The Government of Sri Lanka will open the training centers for training purpose. Close interaction between these educational institutes and market players is necessary. Human resources development programme should be directed continuous updating of the syllabus in accordance with the development of the technologies and e-culture.

Spectrum Management

Rural telecommunication sector is depend on the use of radio frequency spectrum. These frequency spectrums are also used by Wire less and cellular mobile operators, security organizations, broadcasting services and civil aviation authority. The spectrum is a scare resource and it has a growing demand. Therefore it is essential that spectrum be utilized efficiently, economically and optimally.

There is a need to:

- Prepare proper spectrum allocation plan
- Review existing spectrum policy

4.3 Water Supply and Sanitation

4.3.1 Introduction

Access to safe water, and proper sanitation facilities are indicators of human development. The improvement of Water and Sanitation sector has a close connection with reaching the Millennium Development Goals (MDG), since, out of the eight MDGs, following five goals are, directly and indirectly, linked with water and sanitation;

- Goal 1 : Eradicate extreme poverty and hunger
Goal 4 : Reduce child mortality
Goal 5 : Improve maternal health
Goal 6 : Combat (HIV/AIDS, malaria and other) diseases

Goal 7 : Ensure Environmental Sustainability.

Current Status

(a) Legal and Regulatory Framework:

As per the 13th Amendment to the Constitution in 1978 water is in the ‘concurrent’ subject list, so that both the central government and provincial councils are responsible for provision of water supply and sanitation. At the same time, various ordinances and acts relating to Municipal councils, Urban Councils and Pradesiya Shaba (Local Authority) have mandated the various levels of government to arrange for provision of Water and Sanitation services to communities within their jurisdiction.

(b) Institutional Framework:

Institutional Structure to deal with Drinking Water Supply and Sanitation is based on the three levels, i.e Central Government; Provincial Council; and Local Government, At the central level, the Ministry of Urban Development and Water Supply (MUDWS) is principally responsible for the planning and oversight of water supply and sanitation sector throughout the country. Technical guidance and approval of household sanitation, particularly in urban areas is the responsibility of Ministry of Health. As the lead agency in the sector, National Water Supply and Drainage Board (NWSDB) operates across the country for drinking water supply and sanitation

(c) Service Levels and Coverage:

The water supply coverage has increased satisfactorily during the last few decades. The census carried out in 2001 shows that 82% of the populations have access to the safe drinking water (95.9% urban; 81.2% Rural and 61.0% Estate sector). However, there are areas for concern. In Greater Colombo, NWSDB serves just over 60% of the population (of which around 20% represents standposts), with only half that figure having access to a continuous supply. In the provincial urban areas, coverage is only in the range 5-20%, with service for around 16 hours/day. The challenge of providing safe, piped water to all urban residents seems even more daunting when one considers the rate of urbanization

During the last three decades or so, Sri Lanka has taken remarkable strides in meeting the sanitation needs of the population. Over this period, it is estimated that the national figure for access to sanitation has increased from 21% to around 67%. 2001 census shows that 77.8% urban population have access to improved sanitation facilities while 67.5% rural and 43.2% Estate sector.

Key Issues and challenges

There is a cluster of issues, related to water and sanitation sector. The Key issues are listed below;

- a. **Supply of safe drinking Water and sanitation for natural and man made disaster areas:** Mainly issues related to provision of safe water and sanitation facilities to resettlement sites established for people affected by the tsunami and civil conflict.
- b. **Regional variation in access to water and sanitation facilities:** Especially Remote Rural Areas, Estate Sector in Central Province, especially in Nuwara Eliya District, the under-served settlements in urban areas, and the tsunami affected areas
- c. **Inadequate attention and insufficient investment in sanitation sub sector:** Sanitation has always been a sub sector of a main sector, and therefore it continuously gets a little attention. Generally out of the total investment of the water and sanitation sector during last two decades Sanitation sub sector get less than 5%.
- d. **Institutional Issues: Unfinished reforms, decentralization process and institutional capacity, and lack of coordination:** There is a set of inter-related issues comes under institutional paradigm, such as ; (i) delay in institutional reforms and decentralization process, (ii) private sector involvement (iii) lack of coordination between Ministries, Departments and agencies functioning in the urban sector and no clear prioritization of activities.
- e. **Approaches / strategies adopted & technology used :** Another very vital set of issues within the sector are associated with approaches, strategies and technologies used, especially ‘Supply driven – subsidy based Approach/ Strategy. Lack of awareness of services available among the low income community on various kinds of low cost technological options and solutions.
- f. **Deterioration in quality of water sources and the absence of systems of regular water quality testing:** The pollution of surface and ground water is becoming a serious problem. There is an increasing trend of bacteriological contamination.
- g. **High rate of unaccounted for water/ non revenue water**
- h. **Excessive per capita consumption of 180 - 200 liter per capita per day.** mainly a result of low unit rates, as the tariff system does not induce customers to monitor their water demand

Vision:

Safe drinking water and sanitation for all people without restriction

Expected targets to be achieved in ten years (by 2016)

No	Target	Time Frame / Year	2009	2013	2016
		(%) of population			
Water - Overall Target					
1.	Increase overall access to improved water supply facilities with sufficient water supply and achieve service levels and the quality of water national standards		80%	85%	90%

No	Target	Time Frame / Year	2009	2013	2016
		(%) of population			
Water – Sub Sector Targets					
1.1	Increase overall access to improved water supply facilities with sufficient water supply to urban population		90%	95%	100%
1.2	Increase overall access to improved water supply facilities with sufficient water supply to Rural population		80%	85%	90%
1.3	Increase overall access to improved water supply facilities with sufficient water supply to people living in Estate Sector		70%	75%	80%
Sanitation – Overall Target					
2	Increase overall access to safe, adequate and improved sanitation facilities and service levels and the quality of water achieve national standards.		76%	80%	88%
Sanitation – Overall Target					
2.1	Increase overall access to safe adequate and improved sanitation facilities to urban population		80%	85%	95%
2.2	Increase overall access to safe adequate and improved sanitation facilities to rural population		75%	80%	85%
2.3	Increase overall access to safe adequate and improved sanitation facilities to the people living in the Estate Sector		65%	70%	75%

Policy directions

(a) Investment

- Having considered drinking water supply and sanitation as basic human needs, limited resource available will be equitably distributed among regions considering population, development activities taking place, urbanization etc.
- The three levels of institutions ie. Central Government, Provincial Councils, and Local Authority are involved in investment in safe drinking water and sanitation projects.
- Government provides part of investment in water supply projects as grant and remainder as a concessionary loan.
- Government contribution is confined to invest in drinking water and sanitation projects while operational and maintenance costs will be born by the implementing agencies.
- Public private partnership for investment in water supply projects is encouraged.
- For sewerage projects government provides initial investment as a grant and local authorities are responsible for operation and maintenance of these projects.

(b) Tariff

- Cost recovery tariff for pipe born water will be introduced to ensure the sustainability of the sector (subject to a concession offered to the poorest groups as ‘lifeline tariff’ as shown below).

- Tariff system for sewerage projects in urban areas will be implemented with new investment in the projects.

(c) Life-line (social) tariff

- This is to cover basic human needs. Low income communities only will be entitled to subsidies.

(d) Regulation

- Establishment of a regulatory and institutional framework that sets out clear roles and responsibilities among Government agencies and services providers.
- Government will facilitate the formulation of legal framework, training and removing inter provincial sector disparities and establishment of disaster responsive water and sanitation service delivery mechanisms;

(e) Environmental integrity

- Environmental impact will be given due consideration on extraction of water from natural sources.

Strategies to achieve targets

In order to reach expected development targets the following strategies will be adopted

(a) Investment

Growing industrialization and urbanization cause high demand for water and sanitation. Financial cost of fulfilling this demand is usually high. High initial capital investment and a long payback period discourages private investment. Therefore, Government has to intervene to correct the market failure. However, since the Government has its own budget constraints, new investment strategies have to be explored. Some of the proposed actions are:

- Capital subsidy component provided by the government will be reviewed and revised from time to time considering the cost of capital, priorities and area of investment etc.
- Dependence on government investment will be reduced gradually by promoting alternative sources of finance.

(b) Consumer Tariffs

Implementation of the cost recovery principle and accommodation of the needs of those who cannot pay in full for pipe borne water will be through a three tier tariff scheme.

- i. A life- line or social tariff.
- ii. Normal tariff. This is for domestic use. This tariff should reflect the cost of operation and maintenance and depreciation. The quantity of water for this category will be determined considering cost of water, requirements,
- iii. Marginal tariff. Water consumption above the quantity of water identified for normal tariff will be charged for at marginal cost.

Revision of tariff should be done annually in transparent manner A suitable formula will be developed for this.

(c) Demand management

- Discourage over use of water by implementing higher price for high consumption
- Investment and institutional arrangement will be made to reduction of unaccounted-for-water to an acceptable level.

(d) Rural water supply

- User participation approach will encourage for identification ,formulation, implementation and operation of water projects
- Government provides part of investment cost as subsidy and remainder will be financed through user contribution.
- Women participation for all level of project will be encouraged.
- Users will be responsible for operation and maintenance of projects.
- Private sector and NGO will be encouraged to undertake investment in water supply.

(e) Water and Sanitation for children;

Strategies to implement National Plan of Action for the Children are (a) Access status of water supply & Sanitation in school and hospitals, (b) Provision of improved water supply and sanitation through school development societies in all districts, (c) Provision of improved water supply & sanitation facilities in hospitals through the Health Department, (d) Participatory hygiene education interventions and environment studies in schools, (e) Introducing hygiene practices and attitudes and (f) Maintenance service provision.

(f) Integrated urban water supply management strategy

Emerging strategy encourages consumers to use multi-source water supply for different water needs reducing the consumption of treated-water for non-drinking purposes. Exploration of alternative water sources is a critical approach in this context and addressing the issues of protection, conservation and exploitation of water resources is mandatory.

(g) Dedicated water supply lines for compact city development

An approach involving promoting dedicated water supply lines for compact city development and bundle the cost of waterworks into the project cost of such compact city developments.

(h) User Driven Demand Management programme

A user- driven demand management programme, which could lead to sustainable water consumption habits, innovative metering mechanism etc, will be used to reduce the excessive domestic consumption of treated water in order to make room for new beneficiaries to connect to the networks.

(i) Mobilize and empower urban low-income communities in operating settlement specific water supply schemes

The data revealed that the NWS&DB experiences of 36 of unaccountable water from the total water supply In the urban sector every year. Converting un-metered common water posts to metered water connections is a part of the required innovative and multi-faceted approach. Provision of metered individual connections from the distribution network has been one of the strategies implemented by the NWS&DB and other projects to reduce unaccounted-for-water. A field-tested mechanism of bringing Community Based Organization to operate the settlement-specific water supply network where the NWS&DB plays the role of a bulk supplier could be replicated as a strategy to reduce NRW level.

(j) Fund raising mechanism for CBO's

Community is the third sector for economic development and their commitment and capacity have not been explored substantially. Community sector has proven that they are capable of planning, constructing and operating viable rural water supply schemes. Rural based water supply projects such as Community Water Supply and Sanitation project has implemented community contracting up to Rupees five million. However concerns arise on sustainability of CBO operated water supply schemes

as there is no fund raising mechanism for rehabilitation and augmentation work other than routine billing collection. Formulating a strategy on creating avenue for CBOs to raise funds for this purpose needs to be explored.

Interventions required to address strategies

1. Community participation has been a key feature of project design so far in the rural water supply and sanitation sector. There is a need to continue such approach during planning, implementation, and operation and maintenance of rural water schemes. If the Government intervention is forthcoming to focus on partnership building between CBOs, business community, financial institutions and local authorities, the sustainability of the rural water supply projects is ensured.
2. To execute an integrated urban water supply management strategy, interventions of regulatory authorities are essential. For instance, to promote rainwater harvesting for non-drinking domestic purposes in urban areas require strong application of building regulations. Similarly introduction of sewer networks in cities require local authority regulations to ensure households connections.
3. It is necessary to recognize the community sector as the third sector for capital investment in water supply and sanitation projects for mobilized communities to be the partners of the economic development in the country. Revisiting of existing regulatory framework on community contracting is necessary to empower the communities for this purpose,

Public Investment Programme - Water Supply and Sanitation Sector (2006-2016)

												Rs. Mn.
Project	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
<i>On-going</i>												
Rural water supply and Sanitation Project	1875	2307	1111	671	738	812	893	982	1081	1189	1308	12966
Small Scale Infrastructure Rehabilitation and Upgrading Project	2000	2625	2499	1816	1500	1000	1000	1000	1000	1000	1000	16440
Major Water Supply Projects	14849	21873	32771	30475	17234	9689	399	6600	4115	1020	800	139825
Tsunami Relief and Reconstruction projects	6150	4900	1300									12350
Sub Total	24874	31705	37681									94260
												0
<i>New projects</i>												0
Major Water supply Projects			3250	5400	5450	7740	7345	6600	4115	1020	800	41720
Sub Total			3250	5400	5450	7740	7345	6600	4115	1020	800	41720
												0
Total	24874	31705	40931	5400	5450	7740	7345	6600	4115	1020	800	135980

4.4 Roads

4.4.1 Introduction

The road transport is by far the dominant mode of passenger and goods transport. About 95 percent of the passengers and 98 percent of freight are carried over the roads. In terms of the responsibility of road development and maintenance roads are usually classified as national, provincial and local roads. *In addition to the official road network of is 91,862 km there are approximately 24,000 km of roads belonging to the estates, state agencies* such as Forest, Irrigation and Wild Life Departments, Mahaweli Authority etc.

Table 1: Road Network in Sri Lanka

Province \ Category	National (km)	Provincial(km)	Local (km)	Road Density km/ sqkm
Western	1,543	1,945	11,295	4.01
Southern	1,321	1,643	8,201	2.01
Sabaragamuwa	1,103	1,130	7,254	1.91
North Western	1,275	2,118	13,384	2.13
Central	1,707	2,433	8,283	2.19
North Central	1,160	1,771	5,485	0.80
Uva	1,147	1,839	4,447	0.87
North East	2,415	2,653	6,310	0.60
Total	11671	15532	64659	1.40

Development of the road infrastructure contributes to balance regional growth. Poor condition of rural roads has been identified as an important impediment to operation of businesses and undertaking new investment in a recent study by the ADB and the World Bank. Road improvements would also open up opportunities for national integration, political and economic stability.

Vision

To provide accessibility to all population in the country and to have high and quality mobility road network for the transportation of passengers and goods.

4.4.1.1 Issues

- The quality and capacity of road network has become a constraint to meet rapidly increasing demand for road transport.
- Increase in costs to road user (including vehicle operating cost) due to poor condition of roads.
- Lack of coordination among national, provincial, and local authorities and regional development ministries in development and maintenance of roads.
- Lack of skill, capacity and equipment in provincial level authorities to improve the road network

4.4.1.2 Policy Highlights

The existing policies focus on the following

- Evolving cost effective and innovative techniques of design for construction, maintenance and rehabilitation of roads.
- Connecting poor regions and productive centres to domestic and international markets.
- Building a national highway system and an integrated road network
- Improving the management of the existing road network
- Enhancing road safety
- Promoting private sector participation in investment in new roads.

4.4.1.3 Strategies and Action

- High priority will be accorded to for maintenance and rehabilitation of existing road network paying attention to pedestrian safety.
- Carefully selected and economically maintainable new major roads and expressways will be built.
- Development, construction, rehabilitation and maintenance of expressways, interregional national highways, provincial and rural roads will continue.
- If sufficient funding is generated to cover all necessary maintenance and generated a surplus, then the Road Fund will be used for road rehabilitation or widening and improvements of roads.

- Providing road facilities to six percent of villages of the country which reportedly suffer from inadequate access to the transportation networks will be given higher priority.
- An ambitious program for traffic management and increasing road safety will be launched.
- Traffic management measures such as road pricing, construction of flyovers, establishment of signal lights and the construction of grade separated intersections will be introduced.
- Reforms of the road sector institutions will be undertaken.
- Investment opportunities for the Public-Private partnership for expressway development will be opened.
- Systems will be developed to minimize the damage caused to the road surface, due to the laying of utility lines.
- Special programme “Maga Neguma” for developing rural road network will continue.
- The road sector development will continue to assist the nation’s poverty reduction effort.

Development Objectives and Targets

Table 2: Roads Development Targets

Indicator	Unit	2005	2006	2010	2016
Condition of the Road	% of kilometerage in good condition	39	40	58	95
Coverage of villages	%	94	95	97	100

Projects and Programmes

Construction of interregional express highways

Today the Colombo metropolitan area has become the main transport hub in the country. Easing the traffic congestion in Colombo and providing uninterrupted and rapid movement of traffic between provincial / district capitals and economic zones has become important for achieving growth and development objectives. In terms of this requirement, the government is willing to construct the following interregional express highways.

- **Proposed Interregional Expressways**
 - Southern Expressway
 - Colombo – Katunayake Expressway
 - Outer Circular Road
 - Colombo – Kandy expressway
 - Colombo – Jaffna expressway
 - Extension of Southern Expressway

Upgrading and improvement of the existing national road network

These national roads connect regional centres. And their improvement would also result in reduced transport costs for the agricultural and other local produce and thus will have a positive effect on development of interior areas. Proposed flagship road development projects for upgrading and improvement of the existing national road network are as follows.

- **Proposed Flagship Road Development Projects for Upgrading and Improvement of the Existing National Road Network.**
 - Core National Roads Development programme
 - Base Line Road Phase III
 - Rehabilitation of Puttalam – Trincomalee Road

- Upgrading Colombo – Moneragala – Pothuvil road
- Upgrading Katunayake – Padeniya – Anuradhapura – Vauniya Road
- Upgrading Matara – Hambantota
- Upgrading Weerawilla – Ampara
- Upgrading Batticaloa – Tricomallee
- Upgrading Ambepussa – Trincomalee Road
- Tsunami affected road improvement
- Upgrading Trincomalee Mullaitivu Road
- Upgrading Puttalam – Tallady road
- Up grading Jaffna -Vavuniya road

Rural & Provincial road network development: Over 72 percent of the population of the country live in rural areas and they need better roads to improve their economic and social conditions. The latter includes access to health and education facilities. Most agricultural activities and 20,000 small and medium scale enterprises spread over the country will benefit from development of rural roads which are usually in a very neglected state. Flagship Projects for Rural and Provincial road network development are as follows.

Flagship Projects for Rural & Provincial road network development

- Rehabilitation and Improvement of Provincial roads.
- Maga Neguma Rural Road Development Programme
- Estate Sector road development programme under National action plan for plantation communities
- North – East Road Development
- Tsunami affected road improvement

Establishment of Advanced traffic Management measures

Although the traffic load on roads has increased very rapidly during the past two decades, the increase in the capacity of the road network has been very marginal due to the very high cost of widening of existing roads and construction of new roads and difficulties associated with acquisition of land. Therefore effective traffic management measures are to be adopted to maximize the use of available road capacity and to implement appropriate traffic demand management measures. Investment activity in this area would include construction of subways , flyovers , signaling systems and widened road junctions in the main cities. The following flagship projects will be implemented for advance traffic management measures.

Flagship Projects For Establishment of Advanced traffic Management measures

- Construction of 16 flyovers and Grade Separated intersections in Colombo Metropolitan area
- Construction of bicycle lanes within urban areas.

Expected modes of Funding

While the existing sources of funding will continue to provide the bulk of the financing of the investment plan, these sources alone will not be sufficient to cover all the expenditures identified as necessary to prevent further deterioration of roads and bring the road network into at least some minimum standard.

The following are the funding sources considered in the investment plan

- General Revenue
- Donor finance such as the ADB, World Bank, JBIC and Kuwait fund
- Private sector finance , Channelled through such methods as BOT or PPP
- Road user charges, usually in the form of a fuel tax and an annual access charge.

INVESTMENT PLAN FOR ROAD SECTOR (2007-2016)

Rs.Mn.

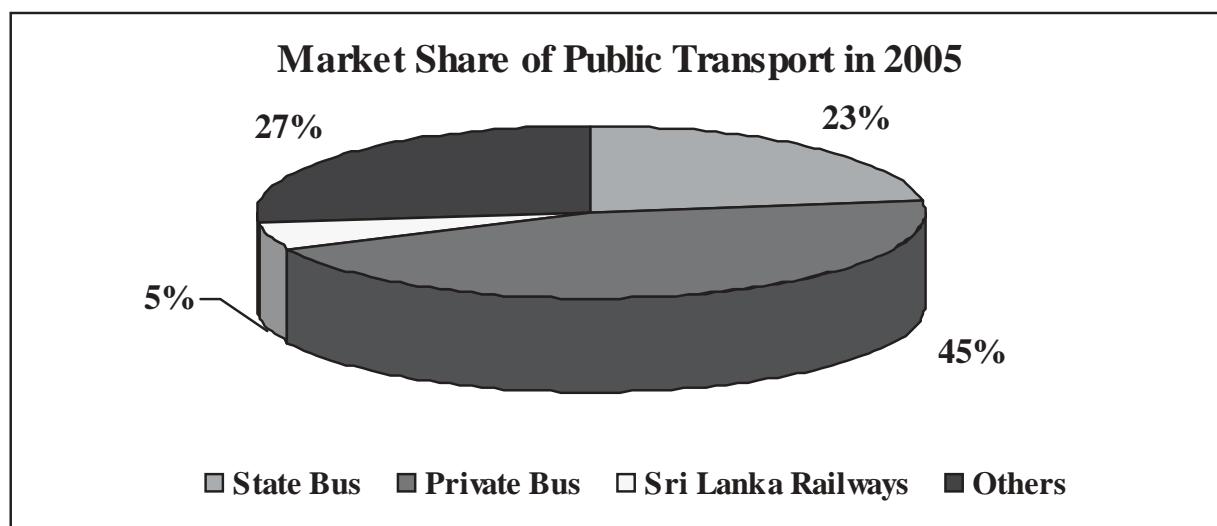
Name of the Project	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ongoing Projects										
Express Highways Development										
Southern Transport Development Project (southern Expressway)	7956.1	7132	5867	6791	3914					
Colombo - Katunayake Expressway	2870	13555	12385	135						
Outer Circular Road (OCH)	2935	5410	11135	14885						
Alternative Colombo-Kandy Highway(ACKH)	43	203	1403	2503	1500	2500	7000	7000	7000	9500
Northern Expressway	100	100	500	1000	3000	2000				
Improvement & Rehabilitation of Road Network										
Maintenance of Road and Bridges	3410	3730	4082	4469	5546	5591	5636	5682	5727	5772
3rd Road Improvement Project	80.5									
Ratnapura - Beragala - Bandarawela Road	100	20								
Road Network Improvement Project - (Funded by ADB)	1600	265	90	128						
Road Network Improvement Project - (Funded by JBIC)	577	38	38	90						
Emergency Assistance for Flood Affected areas	750	312.5								
Rehabilitation of Balangoda - Bandarawela Road	455	134								
Road sector Assistance Project (Funded by WB)	3544.2	3344	1744	1592						
National Highway sector Project	1712	4561	5186	6511						
Baseline Road Phase III	63	308	383	2383	3863					
Badulla Kandy Alternative Road (Raja Mawatha)	50	250	200	150						
Access Road Improvement - Coal Power Plant Nuraichholai	100	400	200							
Rehabilitation of Mannar - Puttalam Road (via Marichchukkaddy)	50	50	10							
Outer Circular Road for Trincomalee special economic zone	200	1400	2100	2100	2100	2100				
National road improvement for Greater Dambulla Development plan	200	200	400	800						
Access Road Improvement for International Airport at Weerawila	50	150	150	350						
Widening and Improvement of Roads (Previously SIRUP)	4002	4025	4025	4600						
Construction of Bridges and Flyovers										
Construction of 27 bridges	91	10								
Reconstruction of 10 Bridges	525	336	63							
Manampitiya Bridge Construction	562	50								
Batticaloa -Trincomalee road project (Kinniya bridge)	415	356								
Construction of Steel Bridges	455	650	650							
Construction of Mannar Bridge	10	130	520	650						
Construction of a fly over at Nugegoda junction ,signalization at Rajagiriya junction and Kiribathgoda - Kadawatha Road	315	325	130							
Reconstruction of Damaged / Weak bridges on national highways	350	500	600	700						
Construction of flyovers in the city of Colombo	50	1950	3000	4000	7000					
Construction of Pedestrian subways at Kurunegala, Maharagama and Kottawa	30	55								
Tsunami Affected Roads Rehabilitation										
Sri Lanka Tsunami Affected Areas Recovery and Takeoff Project(STAART)	167									
(TAARP)- Reconstruction of Roads & Bridges in NorthEast Province	1078.4	1688	1688	795						
Construction of Bridges & Causeways in Tsunami affected southern & eastern coastal areas	204.9									
Reconstruction of Arugambay Bridge	210	210	360							
TAARP - Reconstruction of Matara -Weerawila - Wellawaya , Andella- Tissa , Tissa-Kirinda, Siyambalanduwa-Pothuvil , Pananma -Pothuvil and Pothuvil Akkarapattu road	1607	1820	2745							
Trincomalee Integrated Infrastructure Project 9TIIP)	1026	1106	1356	1606						

Name of the Project	Rs.Mn.									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Tsunami Affected Areas Rebuilding Project (TAARP)-Construction of Bridges at Oddamawadi, Irakkandi, Koduwakattumalai and yan Oya	739	650								
Pro poor eastern infrastructure Development Project	1300	1930	1880							
Reconstruction & Rehabilitation of Mahanama Bridge in Matara	380	500								
Katukurunda Matara Road Section of CGHW Road including beach road at Matara	1440									
Institutional Support	3021.2	2979	3125	3260	3000	3000	3000	3000	3000	3000
New Projects										
Anuradhapura - Padeniya Road (Part of Proposed Katunayaka - Padeniya - Anuradhapura - Vavuniya Highway)		1400	1500	1500						
Katunayake Padeniya Road					250	300	1300	4000	4000	1150
Southern highway Extension Project					1000	7000	10000	10000	2000	
Colombo-Ratnapura-Wellawaya New link						250	400	400	8000	10000
Ambepussa- Habarana link								200	400	400
Improvement & Rehabilitation of Existing Road Network and Future Road Development Projects					35233	39460	37760	34860	30060	31810
Sub Total for National Road Development	44824.3	62232.5	67515	60998	66406	62201	65096	65142	60187	61632
Provincial Road Development	10709	8274	6295	6207	6517	6843	7185	7545	7921	8317
Rural Road Development	9588	10526	11344	9402	9684	9975	10274	10582	10899	11226
Total investment for Road Sector	65121.3	81032.5	85154	76607	82607	79019	82555	83269	79007	81175

4.5 Transport Services Sustainable Mobility

4.5.1 Introduction

Local transportation needs are mainly met by the road and the rail and small portion of local transport is met by air and ship transport. The contribution of road and rail sectors to the National GDP averages from 4% to 6% during the last decade. Petroleum consumption of the Inland Transport Sector amounts to US\$ 1,042 million in 2005 which was an increase by 12% from 2004. The total subsidy claimed for this consumption is US\$ 260 million which is equivalent to 1% of the GDP in 2005. For the domestic passenger transport is based on various modes of transport. The utilization and contribution of each mode is varies as follows.



While transport is contributing economic growth and welfare it creates negative impacts such as urban air pollution, road accidents and high fuel consumption. Policies and strategies will address the issues of minimizing these aspects.

Challenges

- Meet the increasing demand for transport due to increase in accessibility for rural people with implementing various economic activities in rural areas.
- Provision of transport service at affordable price with increasing fuel price.
- Management of increasing traffic congestion with rapid economic development and urbanization.
- Minimizing air pollution created by old vehicle fleet and traffic congestion.
- Provision of continuous bus services for rural areas due to low demand.

The Vision and Objectives: The vision that guides the present plan is an efficient and safe transport system at an affordable cost and responsive to the needs of social and economic development.

Table 1: Transport Sector Objectives and Development Targets

Objective	Targets		
	2006	2010	2016
Providing Efficient Transport Services			
• Public transport modal share %	69	75	80
• Passengers carried by state buses. (As % of total passenger transport)	23	25	28
• Passengers carried by rail (As % of total passenger transport)	6	10	15
• Rail freight transport %	2	10	15
• Private vehicle per thousand people	140	210	300
• Mass Transit (BRT/MRT) %	00	15	25
Social, Environmental & Economic Sustainability			
• Reduction in fatal & grave road accidents per 1,000 vehicles		10%	15%
• Operating cost of bus per km (constant 2006) (Rs.)	43.43	41.20	40.00
• Increase in non motorized transport %	2	10	15

Policy Highlights

The following are some of the main principles that guide policymaking in the transport sector.

- (i). The tariffs for transportation services will be related to costs of providing such services. As far as possible the external costs will also be built into the user charge.
- (ii). Subsidies shall not be granted by the government to transport services and transport users except in special cases specified in (i) above, and justified on economic and social grounds on government directive. In such cases, the Government or Provincial Councils should be prepared to provide direct subsidies to intended beneficiaries rather than through transportation services. This should be considered only in instances where they would be clearly impracticable in operation.
- (iii). Any subsidies under (ii) above shall be granted only after the objective analysis has shown that there is no preferable alternative to specific transportation subsidy with the quantified reasonable cost figure. Where direct payment to beneficiaries is not practicable, the choice is for advocating agency or respective Ministry to pay the full cost-based price for the services and provide access for beneficiaries through the issue of stamps or tickets purchased from the respective transportation agency. The cost of such subsidy shall be included in the budget of the respective Ministry or agency that advocates the subsidy.

Subsidies may be granted for cases where the operation of services, such as an urban commuter service, rural commuter service and to school children who require subsidies. It can also provide third party benefits such as reduction of road congestion and its associated costs to road mobility to rural community for markets and services. Subsidies may be granted to reduce social cost and to uplift the life style of the poor, providing mobility to schools for poor children. However, subsidy in such cases shall be limited to a reasonable approximation of the third party benefit, unless there is a specific Government directive as in (ii) above.

- (iv). Government should not encourage cross-subsidies through operation of transportation services and should avoid this kind of application.
- (v). Government should charge the users of Government provided domestic transportation infrastructure such as roads and terminal facilities. These facilities can be provided as private or public sector projects. In the case of the facility owned by private sector under BOT or BOO shall share the capital investment with Government on a rational basis of charges earning through commercial enterprises.
- (vi). Government regulation of transport shall be in two forms; safety regulation and economic regulation. Economic regulation shall be exercised only in cases where effective competition in free market does not prove to be acceptable and quality of service in producing correct tariffs are reasonably related to the costs of providing the services, which gives an efficient operation. In these cases, the economic regulation shall be kept to the minimum which is necessary to protect the public interest and public order. A system should be developed in order to achieve the self regulation which shall be applied as far as possible with the Regulatory Authority at National level, Provincial level and Local level and there will be one for all sub-sectors (rail, road and water) or for each sub sector. It will be useful, if this is cleared to operate on minimum regulation to keep public interest in place without interfering with free market operation for all modes. The users and suppliers shall be accommodated in the process of formulating a self regulatory system. Regulatory mechanism should not protect the public sector operations which will increase the inefficiency and low productivity.

Rail Transport: Less travel time

Railways contributes around 5% of passenger transport and 2% of goods transport in 2005. Though the accessibility to railway is not spread throughout the country, it carries about 64mn passengers, almost 1.6mn metric tones of freight per annum. Further, it operates 4.4bn passenger kilometers and 135mn freight ton km annually. Railway has been identified as economical mode of transport for passenger as well as goods transport. Increase in its contribution will reduce cost of transportation of passengers as well as freight. However in the interests of cost recovery, it is planned to increase share of passenger transport from 5% to 10% and share of freight transport from 2% to 10% by 2010. In order to achieve this target government expects to invest on railway ½ % of GDP to develop rail transport.

Transport Policy Focus

- Encourage large capacity public transport vehicles in order to achieve energy and space savings and efficiency.
- Direct towards to operate railway as commercial entity by operating competitive basic and developing business areas with private public partnership.
- Lead to adopt the cost recovery principle in its operation while the government is providing assistance to operate services contributes to economic development and social obligation.

- Introduce annual revision of freight and passenger tariff considering tariff revision in other substitute mode instead of fixed tariff for long period.
- Control and mitigation of environmental damage and pollution created by transport development.
- Modernizing passenger and freight transport by rail, thereby increasing its operational efficiency.
- Develop Inter-modal transport with seaport, airport and other road bound transport.

Strategies and Actions

Strategies are developed to achieve three fold objectives: Improvement of the existing services provided to passengers, improvement of financial situation, and improvement of railway in medium and long term perspectives.

Improvement of the existing services

- Revise time table considering passenger demand and increase number of trains operate in suburban areas
- Introduce express train services for identified destination.
- Avoid cancellations and long delays scheduled train services
- Remove all speed restrictions and operate trains at 80 km per hour
- Promote rail bus interchanges in identified places

Reduction of financial losses

- Manage increasing operational and financial losses by introducing efficient management system.
- Reduce cost of good transport and increase revenue of railway by diverting freight transport from road to rail transport.
- Develop railway station as a commercial centre.

Improvement of railway in medium terms and long term

- Increase in operational capacity by extending dual railway line to connect Anuradapura, Matara, with Colombo
- Modernize railway by introducing modern technology and better management system within the departmental frame work.
- Introduce electrified train services for suburban areas.
- Construction of new railway lines to connect growing centres with capital and commercial centres.
- Facilitate container transport by rail to the port through establishment of internal Container Depots at selected locations.

Bus Transport: Comfortable and Safe Journey

The bus service helps to reduce the traffic congestion and *tackle social exclusion*. Bus services are as an alternative to rail services in some areas and it is complementary service for rail for some areas. The market share of the public bus passenger transport is around 68% in Sri Lanka. Of which 23% is provided by the State Bus Companies. The remainder is provided by the private buses.

Policy Direction

- Strengthening cost reflective regulated tariff system for bus sector and providing subsidy for rural and school bus services
- Provide commuter friendly public transport services while encouraging fair competition between public and private bus services

- Encouraging the private sector to formulate viable business entity instead of individual ownership.
- Promote use of public transport as against private vehicles.
- Promote non-motorized transport modes where appropriate (eg. Bicycles)
- Reduce the risk of accidents associated with transport
- Reduce dependency on government fund for operation of state bus service and limit government fund only for investment.

Strategies and Actions

- Improve the existing capital assets through introducing proper rehabilitation programme.
- Reducing traffic congestion by introducing appropriating Mass Rapid Transit System for suburban areas with public private partnership.
- Strengthening state bus services by adding new buses.
- Encourage National Transport Commission and Provincial Councils to develop and implement common regulatory process
- Providing coordinated rail bus services specially in suburban areas.
- Encourage private investors to replace old buses with new buses

Freight transport: Easily access to destinations

The benefits of the freight on rail are stressing in particular its contribution to congestion relief and environmental improvements. Specially, 8% economic growth over the period of 10 year plan is encouraging modal shift from road to rail. Achievement of this objective will increase market share of rail from its current 2% to 10%.

Policy Objectives

- Improve reliability of freight movement
- Coordinate freight transportation investment, economic development, and trade initiatives.
- Improve freight regional network and corridors linking national and global trade areas.
- Ensure economic competitiveness.

Strategies and Actions

- Investment in the infrastructure to provide additional capacity.
- Secure rail freight services which are more competitive, more reliable and meet its needs.
- Improve the productivity of rail freight services by increasing capacity of the rail network and reducing travel time.

Road Transport Sector

Strategic actions recommended	<i>Relevant strategic thrust area (refer the 10 strategic thrusts identified for National Sustainable Development Goals (NSDG))</i>	Time target	Implementing responsibility (Identify responsible Agencies)
1. Implementation of Bus Rapid Transit System in Colombo core area	Energy security & management, sound ecosystem management and sustainable urbanization	2009	Urban Development Authority (UDA)/ Ministry of Railways and Transport
2. Implementation of bus sector reforms for public transport	Social security, eradication of poverty and Good governance	2007	National Transport Commission
3.F Implementation of reform of Sri Lanka Transport Board	Good governance, eradication of poverty	2007	Ministry of Railways and Transport / Sri Lanka Transport Board

Strategic actions recommended	<u>Relevant strategic thrust area (refer the 10 strategic thrusts identified for National Sustainable Development Goals (NSDG))</u>	Time target	Implementing responsibility (Identify responsible Agencies)
4. Implement Inspection and maintenance program for vehicles, enforcing gazetted emission standards	Sound ecosystem management	2007	Ministry of Railways and Transport (MOR&T)/ Dept. Motor Traffic/ Central Environment Authority (CEA)
5. Reduce the age of imported used vehicles to 2 years and ban importation of used spares	Sound ecosystem management and eradication of poverty	2007	Ministry of Finance & Planning / Dept. of Motor Traffic/Dept. of Import Control
6.F Implement road map of clean fuel proposed in Clean Air 2007 program providing market with Euro II fuel by June 1 st , 2007 and EURO III by January 1 st , 2010	Sound ecosystem management and eradication of poverty	2010	Ceylon Petroleum Corporation/ CEA/ Public Utilities Commission
7. Introduce special emission standards for three wheelers with special imports duties to discourage importation of 2 stork two and three wheelers	Sound ecosystem management	2007	Ministry of Finance and Planning & Dept. of Motor Traffic

Railway Transport Sector

Strategic actions recommended	<u>Relevant strategic thrust area (refer the 10 strategic thrusts identified for National Sustainable Development Goals (NSDG))</u>	Time target	Implementing responsibility (Identify responsible Agencies)
1. Improve urban commuter railways with high frequency and service levels	Clean and pleasant environment (air and noise) and sustainable urbanization (Rural economic development and zoning)	2010	Sri Lanka Railways (SLR)/ Ministry of Finance & Planning (MOF)/ Strategic Enterprise Management Agency (SEMA)
2. Development of dry port with rail connection at Ragama	Clean and pleasant environment (Air/ Noise) and energy security and management	2011	SEMA/ SLR/ MOR&T
3. Rehabilitation and construction of double track from Kalutara South to Matara	Clean and pleasant environment (Air/ Noise), energy security and management and eradication poverty	2012	SLR/ MOF/ SEMA
4. Rehabilitation of upcountry railway network	Clean and pleasant environment (Air/ Noise), energy security and management and eradication poverty	2010	SLR/ SEMA
5. Reformation of Dept. of Railways with competitive commercial base	Clean and pleasant environment (Air/ Noise), energy security and management and eradication poverty	2009	SEMA/ SLR
6. Development of railway lands for urban development	Clean and pleasant environment (air and noise) and sustainable urbanization (Rural economic development and zoning)	2010	SEMA/ SLR
7. Improvement of rolling stocks to provide passenger and freight services in effective manner	Clean and pleasant environment (Air/ Noise), energy security and management and eradication poverty	2009	SLR/ MOR&T

Inland Water Transport Sector

Strategic actions recommended	<u>Relevant strategic thrust area (refer the 10 strategic thrusts identified for National Sustainable Development Goals (NSDG))</u>	Time target	Implementing responsibility (Identify responsible Agencies)
1. Development of canal from Dehiwela to Rajagiriya I	Clean and pleasant environment (Air/ Noise)	2010	Sri Lanka Land Reclamation & Development Corporation (SLLRDC)
2. Development of Hamilton canal	Clean and pleasant environment (Air/ Noise)	2012	SLLRDC
3. Rehabilitation of Beira Lake	Clean and pleasant environment (Air/ Noise) sustainable urbanization (Rural economic development and zoning)	2009	UDA/ Sri Lanka Ports Authority
4. Rehabilitation of Canal system from Bolgoda to Colombo including St. Sebastian canal	Clean and pleasant environment (Air/ Noise) sustainable urbanization (Rural economic development and zoning)	2014	SLRDC/ UDA

Flagship Projects

<ul style="list-style-type: none"> Extension of the coastline up to Kataragama <ul style="list-style-type: none"> The proposed railway line will serve the Hambantota district and part of the Monaragala district, an additional length of 110km along the Southern coastal belt of Sri Lanka. The estimated cost of the project is Rs. 30bn of which Rs. 25.7bn is expected to come through foreign assistance. 	<ul style="list-style-type: none"> Rs. 30,000mn
<ul style="list-style-type: none"> Upgrading and double tracking Colombo – Matara railway line <ul style="list-style-type: none"> This railway line is having only 41km of double track from Colombo to Kalutara South and 119km of single track from Kalutara South to Matara. It is estimated Rs. 18,750mn. 	<ul style="list-style-type: none"> Rs. 18,750mn
<ul style="list-style-type: none"> Development and extension of Kelani Valley railway line up to Hambantota via Ratnapura and Embiripitiya <ul style="list-style-type: none"> The proposed railway line will directly serve the Hambantota, Ratnapura and Colombo districts with comprising 151km. The tentative total estimated cost of the project is Rs. 37,500mn. 	<ul style="list-style-type: none"> Rs. 37,500mn
<ul style="list-style-type: none"> New railway line from Kurunagela to Habarana via Dambulla <ul style="list-style-type: none"> This railway line is more reliable access from Kurunegala to Habarana via Dambulla. It comprises 80km and the tentative total estimated cost of the project is Rs. 24bn. 	<ul style="list-style-type: none"> Rs. 24,000mn
<ul style="list-style-type: none"> Electrification of Suburban Railway line <ul style="list-style-type: none"> The section of railway line proposed for electrification between Colombo Fort and Veyangoda with comprising 37km. 	<ul style="list-style-type: none"> Rs. 7,000mn
<ul style="list-style-type: none"> Light Rapid Transit System <ul style="list-style-type: none"> This is proposed from Ratmalana to Battaramulla via Fort railway station with comprising 22km. 	<ul style="list-style-type: none"> Rs. 81,600mn
<ul style="list-style-type: none"> Bus Rapid Transit System <ul style="list-style-type: none"> The proposed BRT system between Battaramulla and Dematagoda has been identified a 7.5km trace. BRT vehicles (Buses) operate totally on exclusive or protected right of way. 	<ul style="list-style-type: none"> Rs. 690mn

<p>•F Purchase of New Buses for Fleet Replacement</p> <p>- The public sector bus system is suggested to inject 10,000 new buses for fleet replacement by year 2016 in order to ensure supply of reliable, efficient, clean and a safe number of buses for the traveling public.</p>	•F Rs. 26,000mn
<p>•F Colombo – Katunayake Express Railroad Project</p> <p>- This is for implementing a shuttle rail bus between Colombo city and Katunayake Airport. The tentative total estimated cost of this project is Rs. 15,650mn.</p>	•F Rs. 15,650mn

Proposed Investment Programme (2007 -2016)

Rs. Mn.

	Total (2007 - 2016)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Railway Sector											
Ongoing Projects											
Purchase of Rolling Stocks	7950	7950									
Rehabilitation of Permanent way with New Rails and Sleepers and Concrete Sleepers Production Units	25485	1870	1630	1780	2045	2350	2590	2845	3125	3450	3800
Rehabilitation and Maintenance of Signaling and Communication System	1162.5	132.5	100	100	110	110	120	120	120	125	125
Construction of Railway Line	430	430									
Maintenance of Rolling Stocks (DMUU, Carriages, Locomotives, Wagons)	14615	730	900	1000	1200	1400	1540	1690	1860	2045	2250
Rehabilitation of Rolling Stocks	9896	481	575	690	825	950	1045	1150	1265	1390	1525
New Projects											
Purchase of Rolling Stocks	18150	0	0	1170	3618	1840	1800	2121	1840	1800	3961
Construction of New Railway Line	101566	70	7620	11966	15800	20000	19980	14200	8700	2000	1230
Upgrading, Double Tracking and Reconstruction of Railway Lines	39640	2401	7650	7390	3800	4169	4600	4750	4880		
Light Rapid Transit System and Electrification of Suburban Areas	103701	0	10	800	15000	25000	20500	23391	2000	2000	15000
Bus Sector											
Ongoing Projects											
Replacement buses with new buses	22917	2000	3900	4017	1560	1690	1820	1950	2080	2080	1820
Rehabilitation of bus fleet	7385	200	280	350	440	550	680	850	1060	1325	1650
Renovation of Central Bus Stand / Bus Stands / Depots / Workshops	2282	81.5	165	180	200	220	240	260	285	310	340
Purchase of Spars, Equipment and Materials	11570	920	965	1015	1065	1120	1175	1230	1295	1360	1425
Social Service Subsidy, Special Bus Services	4460	380	390	395	400	445	450	455	510	515	520
New Project											
Bus Rapid Transit System (Dematagoda – Battaramulla)	2200	0	20	600	680						

Financing Methods

	Total (2007 - 2016)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Railway Sector											
GOSL	51658.5	3713.5	3205	3570	4180	4810	5295	5805	6370	7010	7700
Foreign Assistance	167236	10351	15270	20526	23218	26009	26380	21071	15420	3800	5191
Public Private Partnership	103701	0	10	800	15000	25000	20500	23391	2000	2000	15000
Bus Sector											
GOSL	48614	3582	5700	5957	3665	4025	4365	4745	5230	5590	5755
Public Private Partnership	2200		20	600	900	680					

4.6 Ports and Aviation

4.6.1 Ports

Introduction

Sri Lanka is located at the tip of the Indian subcontinent and Colombo port is the premier seaport in the country and is regarded as one of the leading ports in South Asia too. A unique feature of this port is its strategic geographic location. Therefore, the Colombo seaport could be considered as the South Asian Gateway to Europe, the Far East, the Middle East, Africa, Australia and Pacific Rim countries. Further, Colombo port is located close to world trade trunk routes between the East and West. These geographical advantages are one of the main reasons for Colombo to develop into a major trans-shipment centre and a gateway for other countries in the region.

In future, the port development activities will focus on expansion of capacity and improvement of efficiency of the existing ports, construction of new ports in strategic locations. Instead of dependence on government funds, alternative sources of finance may have to found for investment in ports.

Situation

The capacity of the existing Colombo Port is estimated at 3.3mn TEUs per annum. Container demand at Colombo will exceed the total capacity of the existing port in around 2010. International transshipment business which is a large share of Colombo port is highly sensitive to future capacity and actual services level provided by the port. Maintaining sufficient capacity is required if Colombo Port is to sustain its position as the container hub of South Asia in facing regional competition. Further, the industry will demand deeper and longer-length berths to accommodate the new generation vessels. Therefore, upgrading and expansion of existing infrastructure and improvement of productivity and operational efficiency in the Colombo Port to equal or to be a higher than the other ports in the region is essential. Further, ports in other locations in the island also need to be developed with proper linkages to Colombo Port. Such ports will be able to provide additional ports services to the nation and stimulate economic activities in these areas.

Vision: Developing Sri Lanka as the leading navigational, trading and commercial center in the South Asia

Policy Directions

- Develop the main ports of the country to facilitate increasing export and import trade associated with rapid economic development in the country as well as in the region by taking advantage of the liberalization and globalization process
- Decongest the Colombo international port, by constructing South Port, Galle and Hambantota Ports.
- Develop ports in identified provinces such as South, East, and North as medium scale to divert increasing volumes of domestic bulk freight transport from road to sea transport.
- Cost of land acquisition relating to new port development will be born by the government.
- Encourage alternative source of funding for new investment in port related infrastructure development.
- Encourage registration of ships under Sri Lankan flag and increase Sri Lankan naval professionals to establish Sri Lanka as a major maritime country.

- Operate ports as commercial entity without Exchequer support.
- Encourage public private partnership investment for new investment in the port sector.

Strategies

- While continuing the state ownership of the existing ports, encourage improvement of capacity, efficiency and productivity of ports.
- Enhance the capacity and deep draught capability in the Colombo Port to accommodate modern mega container vessels.
- Develop Hambantota port as an important calling point for provision of port facilities and other marine services
- Manage increasing operational cost of ports to operate as commercial entity
- Establish container terminals outside the harbour as public private partnership projects

Flagship Projects in the Ports Sector

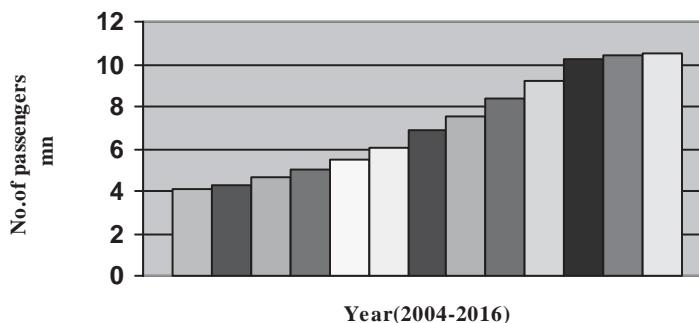
➤ Construction of Colombo South Harbour The proposed harbour involves the construction of break water, dredging of the approach channel and harbour basin, construction of ancillary facilities.	Rs.43,500mn
➤ Development of Hambantota Port Construction of a breakwater, two berths, approach channel, deepening of harbour basin	Rs.30,900mn
➤ Development of Galle Port The proposed harbour consists the construction of new multipurpose terminal and the breakwater	Rs.15,750mn
➤ Construction of Oluvil Harbour Construction of two Breakwaters, dredged harbour basin to 8m to cater 5000DWT vessels.	Rs.4,600mn

4.6.2 Aviation

Introduction

Air transport is one of the fastest growing sectors of the world. Asia Pacific region is regarded as the fastest growing market for the aviation industry in the world. Rapid economic development taking place in India and China will cause a growth in demand for air transport in the region because increased income allows people to spend more on travel and tourism. The location of Sri Lanka has advantage to

Movement of Passengers- BIA



attract increasing numbers of air passengers in the region. Economic growth in the neighboring countries, regions, and Sri Lankan economy will cause an increase in international trade and tourism. Sri Lanka has high potential to capture these growing markets if the industry is properly developed. Air transport has increasingly become the mode of transport of people as well as essential cargo. It has clearly contributed to the rapid growth in international trade in recent decades by making it cheaper and quicker to move products and persons across long distances. Therefore, maintaining a world class aviation industry is vital, to take full advantage of the benefits of the future growth in international trade. BIA is expected to reach the six million passenger target by year 2008.

Sri Lanka's Aviation sector consists of one International Airport and 12 domestic airports. Bandaranaike International Airport (BIA) is the only international airport in the country and Ratmalana and Palally are the main operating domestic airports. Further, the BIA will face challenge on providing landing facilities for the New Large Aircraft Airbus A380 which is scheduled to come in 2008. It is necessary to widen the present runway shoulders and taxiway to meet the wingspan of these aircrafts. The new airports are planned to construct in several countries and major airport renovations are occurring in the South Asian region to face the air traffic and cargo growth. If Sri Lanka, need to become the hub for the region, it is required to provide the incentive for airlines and passengers to travel through BIA. Therefore, it is required to expand the capacity by modernizing infrastructure and other airport facilities and providing competitive landing charges at BIA to face these challenges. The cost of charges levied by the government and other agencies for providing ground-handling services has direct impact on the commercial viability of airline operations to and from an airport. The cost of such charges at BIA needs to be maintained at competitive levels compared to similar charges levied at other international airports, if the BIA is to be promoted as an air transport hub in the region.

Operation of our air transport service is mainly based on bilateral air services agreements. Sri Lanka has signed 59 bilateral agreements with 59 countries. At present, 26 such agreements are operational. Having followed worldwide trends, Sri Lanka has also moved towards Open Skies air services agreements. BIA operates 84 aircraft (42 landing and 42 taking off approximately) per day. Sri Lanka has signed Open Skies agreements with six countries. Sri Lanka will focus specially on obtaining Open Skies agreements with countries which are the key providers of tourism, trade and investment into the Island.

Key Issues and Problems

Required capital investment in air transport is high and private sector participation is still minimal in the development of this sector. It is necessary to explore alternative source of finance for the development of aviation. Domestic air services have not expanded due to the unsatisfactory security situation in the country. Further, present runway capacity of Bandaranaike International Airport is not sufficient to accommodate large air craft such as Air Bus 380.

Vision: To maintain a competitive civil aviation environment which ensures safety and security in accordance with international standards, promote efficient, cost effective and orderly growth air transport

Policy Directions and Strategies

- Government investment will focus on improvement of traffic control, safety and security in the Bandaranaike International Airport.
- Private sector involvement will be confined to provision of landside services such as international and domestic aircraft services, food and beverage concessions, duty free shopping complex, taxi services, parking and hotels facilities near by airport.

- Public and private partnership will be promoted to develop new airports, and improvement of selected infrastructure in the existing airports.
- Provision of adequate world class airport infrastructure capacity in accordance with demand, ensuring maximum utilization of available capacities and efficiently managing the airport infrastructure will be ensured.
- To stimulate economic activities, integration of air transport with other modes of transport will be expedited.
- International passenger and cargo air transport services at economic prices will be provided through development of new airports and existing airports.
- By entering into bilateral agreements on open sky agreements the connectivity between Sri Lanka and other countries will be improved.
- Operation of domestic air services in a competitive manner will be promoted.
- Multiple local carriers for international air services will be encouraged.
- Domestic air links between the capital city with the remote areas will be encouraged.
- An increased number of charter flights from tourist generating countries will be encouraged.
- Appropriate infrastructure such as hotels, organized taxi-services at the airports will be encouraged to help growth in tourism in the country.
- Private sector investment in establishment of training centers for pilots, flight engineers, air traffic controllers will be promoted.

Flagship Projects in the Aviation sector

➤ ***Development of Second International Airport at Weerawila***

The proposed Airport consists of construction of runway 4km, parking apron, a taxiway connecting the runway and the Apron, terminal building, cargo storage, fuel farm and fire services building

Rs.17,500 mn

➤ **Re- Surfacing of existing Runway at Bandaranaike International Airport**

The project is expected to overlaying the existing runway at Bandaranaike International Airport which was constructed in 1984.

Rs.3,000 mn

➤ **Construction of Second Runway At Bandaranaike International Airport**

It is proposed to construct a close parallel runway to the north of the present runway

**Rs.10,000 mn
approximately**

Proposed Investment Programme (2007- 2016)

Rs. Mn.

	Total 2007-2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ongoing Projects with Foreign Assistance											
Galle Port Development	15,730	130	2,834	2,332	2,370	2,664	3,220	1,235	945		
Oluvil Port Development	4,260	600	915	1,464	1,281						
Colombo Port Expansion	43,500	6,000	15,000	13,125	9,375						
Hambantota Sea Port Development	30,900	325	6,115	7,644	9,172	7,644					
Rehabilitation of Kankasanthurai Harbour	2,360	20	585	749	1,006						
Development of Second International Airport at Weerawila	17,500	100	3,045	5,655	4,785	3,915					
Ongoing Projects with Consolidated Funds											
Point Pedru Port Development	100	10	10	10	10	10	10	10	10	10	10
Port City Development	165	145	10	10							
New Projects											
Re-surfacing of runway at BIA	3,000		1,500	1,500							
Construction of second runway at BIA	10,000				3,000	4,000	3,000				
Total	127,515	7,330	30,014	32,489	30,999	18,233	6,230	1,245	955	10	10

4.7 Postal Sector

Introduction

The postal service is the most basic and most common means by which messages can be communicated and goods delivered. Further, it serves as an important medium of communication for business and commerce. An efficient and viable postal service is required to communicate effectively in changing world. Role of the postal service in economic and social development is enormous. Postal service is imperative in a world where heading globalization. For the supply of postal services throughout the country Postal Department has established a network. It consists of 626 post offices, 3413 Sub Post Offices, 450 agency post offices, 156 Rural agency post offices and 60 estate agency post offices. Available facilities in each category of post officers are varied. All post offices have telephone facilities. As far as sub post offices are concerned, telephone facilities are available only for 2796. As an initial step of introducing new technology for post offices, Postal Department has introduced Email facilities for 125 Post Offices. In addition, 140 Communication Locales have been established at post offices.

Main objectives of the postal sector are as follows:

- Ensure better quality of service and greater responsiveness to customer needs.
- Ensure financial sustainability through a reduction and gradual elimination of cost and service inefficiency in its operations.
- Optimize the utilization of postal services and infrastructure to stimulate and support economic development and employment creation.

Issues in the Postal Sector

a. Continuous financial deficit

Continuous financial deficit is the main problem faced by Department of Posts. In spite of the fact that postal tariff has been increased regularly they haven't recorded any profit since 1986. It has been calculated that total financial deficit is about Rs 6500 mn by 2005.

b. Unsatisfactory quality of Service

It has been estimated that on time delivery of letters are vary from 34% to 65%. Low productivity is the main reason for the unsatisfactory quality of service.

c. Poor organizational structure

Market structure and market share of postal service have changed with liberalization of the economy and introducing new alternative technology. However, structure of the Postal Department has not been changed during the last few decades.

d. Low induction of technology

Department of Posts performs their operations manually. The results are low productivity and poor quality of service.

e. Uneconomical postal network and services

There is a dense postal network in the country. Post offices were opened without studying financial impact. That is why most of the post offices are running at a loss.

f. Out dated tariff policy

Tariff policy should be developed based on the market situation. Postal market has changed from monopoly status to competitive market. Therefore, tariff policy should also be revised accordingly.

Policy Direction and Strategies

- Efficient postal service will be provided through Post offices in every “**Jana Sabaha**” Secretariat.
- Postal Department will focus other services of income by providing electronic money transfer services, payment of insurance, utility bills, banking services and e-government services.
- Accessibility to efficient postal services will increase through introducing modern technology.
- In order to reduce disparities between urban areas and rural areas, Postal Department will be promoted as call center for village.
- Reduce growing financial deficit through streamlining key management support system.
- Preparation of a Business Plan for the Postal Department and implement it in 2007 onwards.
- Declining postal market will arrest by adopting different market strategies.
- Tariff system will be developed considering increasing cost, competition, volume of letters delivered.
- introduction of electronic management information system

Strategic priorities	Targets	Programmes
Expansion of the nation wide postal network	Improve and expand the postal network	-Establishment of Post office for “ Jana Sabaha ” Secretariat -Construction of new post office buildings and rehabilitation of post offices
Communications facilities	Provision of better communications facilities for the public	-Provide telephone facilities for sub post offices -Provide fax facilities for post offices -Provide internet and email facilities
Improved quality of service	Increase the efficiency and productivity	-introduce automated counter system for post offices - Provide bicycles for post men
Post office as a commercial organization	Reduce the financial losses	Establish a separate unit in every post office with following facilities. <ul style="list-style-type: none"> ● Internet and email ● Fax ● Photo Copy ● Local and International Call ● Stationary ● Type settings ● Graphics Design Develop a electronic system in major post officers to provide <ul style="list-style-type: none"> ● Banking services ● Agency insurance services ● Agency bill payment services ● Effective money transfer services Introduction of a proper management system
Human Resource Development	Enhancement of the knowledge and skills of staff	<ul style="list-style-type: none"> ● Prepare a Human Resources Development plan in order to train employees in national and international level ● Introduce a system to annual evaluation of employees

5. Tourism

Tourism has firmly established itself as the world's fastest growing and largest industry. International arrivals in 2005 reached 808 Mn the world over and it is forecasted that during the period from 2006 – 2015, arrivals will maintain a rising growth rate of 4.6 percent and will reach 1.56 Bn by 2020. Global tourism contribution to world GDP is 10.3 percent. In the year 2005 tourism created 221 Mn jobs with a US\$ 162 Bn pay role. Employment from Tourism is forecasted to be around 269Mn by 2015. Tourism stimulates globally enormous amount of financial resources in basic infrastructure development benefiting the living conditions of rural people with better roads, access to electricity, water and other improved facilities in their own environments.

In Sri Lanka, Tourism has been accorded the highest priority by the successive Governments as a fast emerging potential growth sector in the economy in terms of foreign exchange generation, employment creation, infrastructure development, regional development and creating multiple spin offs for rural poverty alleviation. Tourism generates annually Rs.40 Bn to the economy by way of foreign exchange while securing more than 200,000 direct and indirect jobs. The informal sector dependant on tourism is substantial and is fast growing.

The following table shows the main trends

Table 1: Volume & Value of Tourism - 1997 -2005

Indicator	1997	1999	2004	2005
Tourist Arrivals	366,165	436,440	566,202	549,308
Excursionist Arrivals	18,265	28,335	11,509	119,618
Official Receipts				
Rs. Mn	12,980.3	19,297.3	42,666.3	36,377.3
US\$ Mn	216.7	274.9	416.8	362.3
Receipt per tourist per day (US\$)	58.6	61.4	72.2	74.6

Table 2: Relative Importance of Tourism as a Foreign Exchange Earner

Sector	FE Earnings 2005 (Rs. Mn)	Percentage of total FE earnings 2005
Textile & Garments	291,090	29
Private foreign remittances	191,849	19.1
Tea	81,481	8.1
Tourism	36,377	3.6
Other Agriculture	18,439	1.8
Precious Stones	12,088	1.2
Petroleum products	19,170	1.9
Coconut	11,400	1.1
Rubber	4,724	0.5
Other	337,432	33.6

Tourism has been recognized as a high priority area in the “Mahinda Chintana” Policy Framework capable of effectively driving the country’s socio economic development.

Vision for the Tourism Sector

Make Sri Lanka the foremost (most sought after) leisure destination in the South Asian Region. Our human resources and natural and cultural endowments values and ethos will be fundamental in transforming Sri Lanka into a center of excellence to lure the hearts of the world tourism community and that of local populace while offering them the highest values of authentic experiences in its unique setting.

5.1 Objectives

The long term primary objective is to realize 2.0 Mn tourist arrivals by 2016. In doing so emphasis will be laid on to gradually moving away from all inclusive package tourists to up scale Free Independent Travelers (FITS) who are comparatively high spenders.

Transform tourism to be the third largest foreign exchange earner in the economy and attracting more of high spending tourists will to a greater extent help in realizing this objective. Currently average spending per day remains as low as US\$ 64. It is hoped over the period of time to raise this to US\$ 150 creating comparatively more opportunities for amusement at new marketable products will be undertaken for this purpose. Average duration of stay has a considerable impact on Tourism revenue. A Western traveler spends usually 10-14 days to enjoy their vacation whereas maximum stays of a Japanese traveler do not extent 8 days.

Transform Tourism to be the fastest job creator is a key objective in terms of resolving employment problem. According to statistics as of now more than 200,000 depend on direct and indirect tourism related jobs. Increasing investment in Tourism no doubt will create maximum number of jobs in the tourism sector. Expanding hotel school training will also be undertaken in the process of enhancing job opportunities. It is expected to increase tourism related jobs to 350,000 in 2010 and 500,000 in 2016.

Expected Targets for the Next 10 Years

	2005	2010	2016
Tourist arrivals (000)'	549	1500	2000
Hotel rooms	13162	25000	35000
Average duration of stay (days)	8.7	10	12
Average spending (US \$ per day)	74.6	200	250
Direct & Indirect employment (000)'	125	350	500
Earnings (Rs.bn)	362.3	800	1200

5.2 Policy Framework

While promoting Tourism, GOSL will be mindful of the potential adverse effects of uncontrolled and haphazard development of tourism on the society at large and on the immediate physical environment. Therefore, high priority will be attached to sustainable tourism development which involves a drive towards cleaner, wholesome production, protection of indigenous flora and fauna as well as archeological and cultural treasures.

5.2.1 Types of Tourism and Changing Market Characteristics

Sri Lanka Tourism will be made to gradually move away from mass Tourism. The long-term objective would be to transform the tourism product to attract and satisfy the emerging up market segment. This trend will eventually galvanize the increasing mass tourism while focusing on high spenders

in lesser numbers. Tourism product will be further diversified into various segments such as nature tourism, adventure tourism, agri-tourism, culture tourism, community tourism, sports tourism, eco tourism, wellness tourism, and in line with emerging new trends.

As a part of promoting up scale tourism, market segmentation and diversification will be undertaken, vigorously moving away from traditional to non-traditional markets, while sharply focusing the South Asian region and the emerging markets in Asia Pacific region including Japan, China, Korea, and Australia.

The policy will also support creating opportunities for responsible tourists to closely interact with community and to satisfy themselves by ensuring some benefits to the community and to the destination. Other types of modern tourists may seek to experience excitement and adventure. New tourism products to meet such demands need to be created in order to win the loyalty of those specific groups to the destination. Those among them wanting to engage in charity will be made to feel welcome.

5.2.2 The Roles of the Government and the Private Sector

The Government's role will be largely to provide a policy environment conducive to the private sector to operate all tourism services and to be a facilitator and a regulator at the national level. To this extent, a dynamic Government sector institutional network will be strengthened with enhanced legal authority. The priority accorded to general infrastructure development in all government investment programmes will also benefit the tourism sector.

5.2.3 Tourism Product Quality

To ensure that quality standards are observed in all products and services offered to tourists the Sri Lanka Tourist Board (SLTB) engages in regulatory functions assigned to it by the relevant legal enactments. Periodical inspections to enforce the rules are undertaken.

An important issue is the existence of a large number of small time businesses servicing the tourists such as restaurants, guest houses, souvenir shops and other vendors who are an essential part of the industry who operate outside the regulation network. In the absence of adequate regulation, their activity may occasionally tarnish the good reputation of the industry. Therefore concrete action will be taken to encourage these operators to improve their service standards without harming their business profitability and initiative.

5.2.4 Incentives for Tourism Development

The Government of Sri Lanka (GOSL) will provide attractive range of incentives to attract investors both local and foreign, into the Tourism sector. Simplifying project approving procedures under one stop shop will be ensured. All stakeholder agencies assisting tourism investment primarily the BOI, Ministry of Environment and Natural Resources, Ministry of Cultural Affairs, Ministry of Urban Development, Ministry of Enterprise Development & Investment promotion, Wild Life Department, Dept. of Forest, Dept. of Archeology, Coast Conservation Department will be brought under a strong network for purposes of speedy investor facilitation.

5.2.5 Environment and Cultural Considerations

When developing tourism, the industry actors will be strictly guided by laws and regulations set out by the Central Environment Authority, Wild Life Dept. CCD, UDA, Dept. of Immigration etc. Compliance with standards and specifications set by the Sri Lanka Tourist Board for those engaged in providing various tourist services will be compulsory. The rules relating to the location of liquor sales outlets and their opening and closing hours introduced by the Government recently are to be enforced. Such laws and regulations will be considered as essential ingredients of responsible tourism.

5.2.6 Training and Manpower Development

While formal training in the sector will be undertaken by the Sri Lanka Institute of Tourism & Hotel Management in Colombo and its satellite school network, maximum Government support will be extended to the private sector training initiatives advising them to ensure compliance with the Government standards which are world recognized.

The Hotel School training will be speedily geared up to train larger numbers. With this object in view, filling of vacancies in the key positions of the school, updating the curricula, and facility development in the satellite hotel schools will be undertaken. Training needed to improve quality of guiding services will be a major priority.

5.2.7 Aviation Sector

The aviation sector is crucial to the development of the tourist industry. During the year 2005, about 99% of the passengers arrived and departed by air. Therefore the policies and strategies of each sub sector need to be co-ordinated. Collaboration in carrying out promotion will bring benefits to both. This aspect will receive due consideration in the plan.

5.2.8 Food and Beverages

- Authentic Sri Lanka food, sweets and fruits production will be given a high priority as commodities for tourism consumption.
- Relaxation of rules regarding business hours for liquor sales will be considered by the GOSL under special circumstances.

5.2.9 Domestic Tourism

The fast emerging domestic tourism sector will be accorded high priority. Policy and incentive regime will focus on low cost, but substantially high quality accommodation facilities for the benefit of the domestic traveller. Local tour groups will be encouraged to develop short duration package tours for domestic traveller with transport.

Provincial Council Tourism authorities will be advised to identify lesser known attractions found in large numbers in their Provinces and to develop visitor facilities such as viewing decks, car parks, comfort centres with a view to ease the congestion in most popular attractions. Travel information guidebooks will be published depicting those attractions and the respective accommodation details.

5.2.10 Health and Security Concerns

Safety standards and security aspects relating to tourism will be considered as top priorities for visitor confidence building. To minimize Tourism related crimes and to combat child-sex tourism, strict police vigilance will be conducted. Awareness creation at all possible levels will be enhanced as part of a positive approach in this regard. Improved health facilities will be put in place in every major resort with modern first aid and ambulance services.

5.2.11 Regional Cooperation

The Government has so far followed a very relaxed diplomatic policy in promoting regional cooperation within a competitive environment. Relationships with the SAARC, BIMST-EC, SASEC and the bilateral cooperation with selected countries will be further strengthened. Dual country promotions will be undertaken where economic gains and complementarities are obvious.

5.2.12 Hotel Room Pricing

Pricing of hotel rooms will be managed cautiously to ensure hotel sector profitability and investor returns. Although a low demand caused by an unsatisfactory security situation, created a relative oversupply

of rooms in the past and will probably continue for some time, price structures will be kept optimally high synchronizing the up scale tourism product.

5.3 Strategy

5.3.1 A Regional Hub in Tourist Industry

The strategic objective of promoting Sri Lanka as a regional hub in tourism industry will shape the future development activity. The establishment of the second international airport at Weeravila and the proposed Hambantota port are likely to make a substantial contribution to this effort. These will create new trading opportunities for Sri Lanka. BIA as of now will be showcased as a fully fledged port in terms of efficient ground handling, competitive charges fuel costs. The open skies policy presently being adopted will further facilitate this process. Sri Lanka will also be promoted as a regional hub for cruisers. With the setting up of the new Hambantota port there will be widened opportunities to aggressively promote cruise operations to and from Sri Lanka.

Large scale national promotions will be undertaken to showcase the renowned cultural and religious annual calendar events from time to time. These include cultural events, religious events, sports tournaments, entertainment events, and shopping and food festivals to show the visitor that Sri Lanka is a year round activity based destination. A coordination mechanism will be set up to mobilize the endeavors of the respective stakeholder agencies such as Ministry of Sports, Ministry of Religious Affairs, Ministry of Cultural Affairs, Ministry of Environment, Ministry of Health etc to organize such events.

5.3.2 Resorts Development

Flagship projects will be undertaken under different themes to develop Tourism in new resorts. As promised in “Mahinda Chintana”, Arugambay, Hambantota and Kalpitiya will be developed as Tourist zones in addition to Dedduwa, Galle, Panama and Negombo with increased activities and special concessions for the tourists both international and local.

5.3.3 Marketing Promotion

A consistent marketing and advertising policy will be adopted to aggressively promote Sri Lanka in the fast emerging key markets. Sri Lanka Tourist Board’s overseas offices will be set up in those markets with marketing professionals to carry out country specific advertising campaigns. One priority in this campaign is to correct the adverse publicity given to the country by certain elements quoting the armed conflict taking place in the North and East of the country.

5.3.4 Accommodation Facilities and Other Infrastructure

To achieve the targeted room capacity of 30,000 by 2015 and to stimulate investment in hotel sector, the state of the art infrastructure will be developed. The Government support will be extended to existing hotel room quality improvement and refurbishing. There are several small and large scale private sector led recreational and hotel room construction projects in the pipeline. Accordingly, the total capital investment both foreign and local will be approximately Rs.1300 Mn during 2005/2006.

Action will also be initiated to develop adequate infrastructure required to meet the increased numbers accommodated. Accordingly, the access roads, sewerage disposal facilities, drinking water supplies, electricity and transport will be planned to match the number of new rooms constructed.

5.3.5 Roads and Railways

Improvement of the existing road network will be a vital factor to ensure comfort of the traveler. Efforts will be undertaken with the RDA and Provincial Councils to develop existing roads to hotel located in various parts of the country highway projects and new railway tracks construction will be aggressively pursued with the relevant agencies.

5.3.6 Shopping Destination

Sri Lanka has already made a name for garments, leather products and other consumer goods by maintaining comparatively low prices and high quality in the region. There is considerable potential to move further – to showcase Sri Lanka as a shopping destination in the region.

5.3.7 Wellness Tourism Destination

Sri Lanka will be gradually developed as a wellness Tourism destination with given upscale facilities. All new hospitals in Colombo and suburbs will be given GOSL facilitation to improve quality of services with most modern medical technology and specialist medical services. Hotel sector will be encouraged to provide suitable accommodation for tourists seeking western and ayurvedic medical treatment in Sri Lanka.

5.3.8 Taxes and Tariff Structures

The taxes and tariff structures relevant to tourism industry will be reviewed with a view to attract more tourists during difficult times. Special packages and concessionary rates where possible will be adopted to obtain competitive advantage.

5.3.9 Crisis Management and General Safety Arrangements for Visitors

Crisis management will be sharply focused. Early warning systems will be set in place to minimize damage to life and property during natural calamities such as tsunami, floods, land slides etc. Crime related tout activities will be closely monitored with enhanced tourist police vigilance. To promote Sri Lanka as an up market destination, these ill factors will have to be strictly controlled and gradually eliminated. Tourists will be allowed to be handled only by trained qualified guides.

5.3.10 Awareness Creation

Awareness creation among the public at large on the value of Tourism for economic growth and for overall development of the country will be undertaken. Negative mindsets have to be transformed into positives by continuous awareness creation emphasizing that today tourists are discerning and comparatively educated and genuinely to wanting to experience different natural environments, cultures and people behavior while enjoying their vacation and leisure time.

5.3.11 Promotion of Traditional Foods

Rural communities will be given maximum encouragement and required technical know-how to grow organic local fruits found in abundance and variety for tourist consumption while in hotels and elsewhere. Quality standards of fruits to be produced and the related technical details will be arranged for them. Hotels will be advised to display authentic “Sri Lankan fruit stalls” in hotels for the purposes of positioning country based fruit verities.

Visitors will be given opportunity to taste the authentic traditional sweets identified with different communities in the country. Steps could be taken to make such items available in all hotels, guest houses in special food courts.

5.3.12 Village Based Tourism

Village based Tourism will be pursued with a view to create spin offs for the rural community. Identified villages will be showcased under different them such as “Pottery Tourism Village”, “Handicraft Tourism Village”, “Coir Tourism Village” etc depending on their traditional old aged industries. The objective is two fold. Allow tourists to experience the authentic rural industry production processed and

for the community to gain economic benefit from tourists interaction by way of selling their production out puts direct to tourists.

5.3.13 Institutional Reforms

It is imperative to ensure setting up of a dynamic institutional network to undertake and handle Tourism effectively. The new tourism law may be finalized soon to secure the expected institutions to handle marketing and promotion, product development, resorts development, human resource development, investor facilitation, MICE tourism development etc.

5.3.14 Investor Facilitation

Investor facilitation must be considered a key area for retaining investor confidence and attracting new investment into Tourism. Speedy approval without rigid bureaucratic bottlenecks must be ensured. Tourism authorities will collaborate with the BOI and other official agencies to achieve this strategic objective.

5.3.15 Acquisition of Land for Tourism

Speedy completion of land acquisition ensuring the vesting of ownership of both Government and private lands with the Sri Lanka Tourist Board identified in Kalpitiya, Dedduwa, Arugambay, Hambantota resorts will be an urgent priority.

5.3.16 Colombo City Development

Sprucing up Colombo city as an attraction among business travelers who spend their stay in Colombo city hotels is overdue. It is proposed to work with the relevant municipal and other authorities to speedily accomplish the following actions:

(a) Preservation of historical buildings, (b) Developing visitor facilities such as walkways, good quality toilets and other facilities, parking areas, sitting areas, craft shops (c) Developing evening recreational facilities including the upgrading of the Beira Lake, the Gall Face Green, the Dutch Hospital etc, and the (e) Elimination of untidiness caused by unnecessary bill boards and posters (f) Improving signage (g) Installation and maintenance of street illumination.

5.4 Investment Plan - 2007 - 2016

Major Intervention				Rs.mn
	2007-2009	2010-2012	2013-2016	Total Investment
1. New resort Development	1000	1300	1600	3900
2. Tourism Marketing & Promotion	2400	2700	3000	8100
3. Human Resources Development	200	300	400	900
4. Tourism Resources Improvement Project	1743	499	-	2242
5. Village Based Tourism Development	60	75	90	225
6. Awareness Creation Programme	25	30	42	97
7. Elephant & Whale Watching Project	300	300	-	600
8. Visitor facilitating at lesser known tourist attractions	6	8	10	24
9. Facility development at archeological heritage sites	4	6	8	18
Total	5738	5218	5150	16106

6. Urban Development and Human Settlements

6.1 Urban Development

6.1.1 Introduction

Challenging Urban Characteristics in Sri Lanka

The country is experiencing a speedy growth in the urban population in par with global urbanization trend. The estimated average urban growth rate is 3 percent per year during 2005 -2015 while annual population growth rate will be less than 1.2 percent. The present urban population should be around 30 percent and more than half of the country's population will be living in urban cities by the year 2016. The pace and magnitude of this urbanization means that the policies and strategies should be in place to ensure sustainable urban development and to minimize growing poverty in cities, improve the urban poor's access to basic facilities. Western Province is experiencing heavy urban concentration creating imbalance in economic growth in the country.

Systematic urbanization process which will ensure making the life of all citizens be comfortable, decent and healthy is the long term vision of the urban development policy framework.

Challenging Urban Characteristics in Sri Lanka

- 50% of population in Colombo city live in urban poor –under-served settlements
- Floating population to Colombo city is 1.8 to 2.0 million per day
- Amplifying the informal sector
- Linear development in outer areas of Colombo

6.1.2 Long Term Policy Framework

The long term policy framework of urban development will be based on the elements given below:

- The approach of city/ town development as engine of the regional development.
- Arrest haphazard and ribbon type urban expansions through appropriate land use planning.
- Proper regulation and guidance through the relevant agencies and local authorities.
- Arrest migration to urban areas through proper city and town development programmes.
- Improve local townships with modern amenities to make them more attractive.
- Introducing new laws and enforcement of the existing laws in effective manner in order to protect urban environment.

6.1.3 Strategies

- Develop and modernize the capital city (Colombo) and its environs to suit with the international standards. Priority will be given to developing infrastructure facilities and improving intensive land use in the city of Colombo.
- Develop regional cities on particular themes enabling to activate the regional growth process in sustained manner. These city centres are expected to act as regional economic and service centres which will stimulate growth in the region.
- Establish national level growth centres in order to ensure geographically balanced development in the country. These growth centres will activate the development process in the surrounding areas through attraction of private sector investments.
- Develop small and medium townships throughout the country as second and third order cities. This will help to reduce the regional imbalances in development by way of performing growth poles.

- Improve under-served settlements in the city of Colombo through private developers and liberate prime lands for commercial activities. Through this process, under utilized urban prime lands will be utilized for development and commercial purposes by private sector.
- Upgrade urban environment by amending the SLLRDC Act and UDA Act. This will help to prevent unauthorized filling in low-line areas and pollution of canal system and water bodies.
- Establish/ improve regulatory frameworks at national and regional level through Local Authorities to arrest haphazard developments and, unlawful development and commercial activities.
- Capacity development in Urban Local Authorities and localize MDGs in order to ensure good governance and reduce regional disparities with respect to MDGs achievement.

Table 6.1: Objectives, Targets and Sub Programmes

Priority Areas	Targets	Programmes
(a) Urban infrastructure development	<ul style="list-style-type: none"> •By 2016, one-half of Sri Lanka's population living in areas where urban characteristics are dominant. •Reduction in urban-rural gap in terms of physical environment housing and other amenities. 	<ul style="list-style-type: none"> •Greater Dambulla Township Programme. •Greater Hambantota Development Programme. •Colombo - Sri Jayewardenapura Kotte Development Programme •Development of Colombo Core Area •Greater Trincomalee Development Programme •Regional Growth Centres. •Horana Town Development •Pro-poor initiatives in urban areas
(b) Urban environment and resource management	<ul style="list-style-type: none"> •Sustainable urban development through management of natural resources and effective regulatory framework 	<ul style="list-style-type: none"> •Protection of water bodies, canal systems and wetlands in urban areas. •Strengthening of the regulatory framework to protect urban environment.
(c) Urban Governance	<ul style="list-style-type: none"> •Efficient urban local government system. •Efficient resource allocation among urban local authorities •Reduced disparity in development 	<ul style="list-style-type: none"> •Localizing MDGs •Enhancement of capacities of urban local authorities.

In this scenario, the government will implement the following development programmes in a bid to arrest the problem of widening disparities in development and ensure systematic and sustainable urban development process throughout the country under the above mentioned priority areas.

6.1.4 Urban Infrastructure Development

There is an exciting future ahead in the country to create a vibrant urban environment in which to live, work and facilitate rural communities. Investment on urban infrastructure provides a new development dimension and rural communities will be increasingly affected by the urban actions. Rural population have the opportunity catering to urban needs, responding to urban priorities and capitalizing on the opportunities the cities present

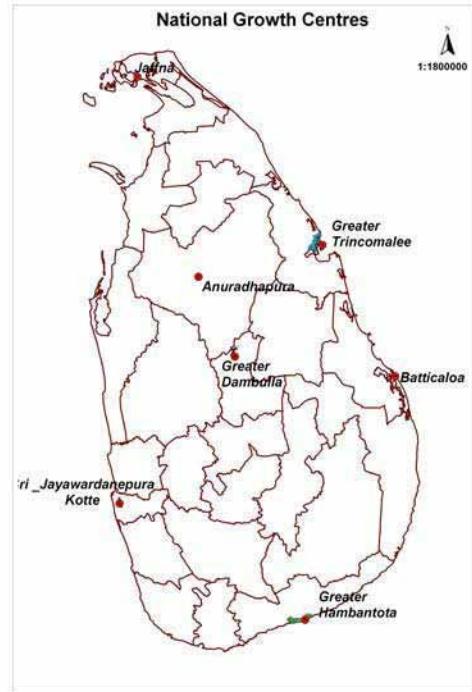
To create a well-planned path towards sustainable urban development in next ten years, priority will be placed on creating major growth centres, which could absorb amplifying urban population and are magnets for economic growth. The urban hierarchy of integrated spatial development plan envisages identifying the growth centres of the country and accordingly the government has aimed to invest on four growth centres.

6.1.5 National Growth Centres

The national level growth centres identified for ten-year investment programme are Greater Dambulla, Greater Hamabantota, Greater Trincomalee, Colombo-Sri Jayewardenepura, Jaffna, Batticloa and Anuradhapura.

6.1.5.1 Greater Dambulla

Implementation of the Greater Dambulla development plan creating a self-sufficient metro urban centre based on agriculture, tourism and transport by year 2016. Dambulla will serve as the commercial hub of the area and new industrial park contributes to larger employment generation. Greater Dambulla has as an immense potential to promote tourism industry mainly eco-tourism and leisure activities attracting up-market tourists. Protecting important archaeological sites will be a part of the development plan envisaged for next ten years. Connecting railroad network to Kurunagala and Habarana will create Dambulla as a transit centre for Agri-cargo and other products.



6.1.5.2 Greater Hamabantota

It is anticipated that Greater Hamabantota Development fulfills the socio economic and spatial needs and the area acts as the 'catalyst' for a major economic development in the Southern region. The proposed Hambantota seaport and international airport would be a driving force to attract larger industrial and commercial sector to the region. Therefore, development of urban infrastructure in Greater Hambantota will be given priority in the urban development plan focused on next ten years period.

6.1.5.3 Colombo- Sri Jayewardenepura Kotte

The Government of Sri Lanka is in the process of implementing the shifting of public sector administrative institutions to Sri Jayawardhanepura Kotte (SJK). The aim of this project is to make the city of Colombo a vibrant commercial and service centre. The Government has embarked on larger infrastructure development programmes facilitating the establishment of administrative functions in SJK through domestic capital market. A light rail transit system to ease the growing traffic resulted from the increased floating population is one of the key projects to be implemented through private-public partnership.

Anchor projects in Colombo– Sri Jayewardenepura Kotte

- Panchikawatte Triangle Development
- Colombo Centre point development
- Sethsiripaya Stage II Administrative complex in SJP
- Bus Rapid Transit system
- Biera Lake Development

The Government will initiate few flagship projects to create the Colombo city as the vibrant commercial and service centre. Panchikawatte Triangle Development is one of the mega projects identified with the objective of creating the area as the gateway to the city of Colombo from a prosperous northern sector of the larger metropolis and making it as a prime area for pioneering urban re-generation. Colombo Centre Point Development Programme is to revitalize the central business district and creating the Fort area as the financial hub.

6.1.5.4 Greater Trincomalee

Trincomalee is the driving force of the economic and social progress of the entire Eastern coastal belt. The proposed industrial and tourism zone, coal power plant, port related development and coastal road network in Trincomalee contribute to a rapid urban expansion in the region. This will also lead to increase the contribution to GDP from the Eastern Province.

6.1.6 Regional Growth Centres

The prospective regional growth centres are Galle, Kandy, Horana, Kurunegala, Puttalam, Kegalle, Vavuniya, Badulla, Mahiyangana, Awissawella and Monaragala. These regional growth centers will absorb urban population in more geographically balanced manner, cater to the rural population as a economic and service center and reduce settlement expansion in disaster prone areas.



The projects designed in these regional growth centres are road networks and transport terminals (Rail and Bus), railroads, mega city centres, hospital and health facility development, schools and skills development institutions, water and sewerage networks and housing.

Secondary Town Centres

Hikkaduwa, Tangalle,
Nawalapitiya,
Katargama, Potuvil,
Maharagama, Panadura,
Gampola, Belliatta,
Eheliyagoda

The secondary town centres identified in the integrated spatial development plan play a major role creating new economic opportunities for local entrepreneurs in the relevant areas. Many of the small towns possess enormous underutilized resources due to lack of basic infrastructure, poor access to service networks and technology. Furthermore, small towns provide participatory space for communities to involve in economic activities, innovative local actions, and city management giving the feeling of being the partners of the economic development. The ten-year development framework anticipates investing on small and medium infrastructure projects such as new roadways, commercial complexes with modern storage facilities in the secondary towns. Prioritized secondary towns are listed in the box.

Urban centres in the eastern and southern coastal belt have suffered serious economic blows because of Tsunami. The rapid response to the shelter needs in the Tsunami affected areas was relatively successful. However, the process of revitalizing Tsunami affected small towns is rather slow due to limited resources mainly financing. Revitalization of Tsunami affected small towns is a critical element to restore the livelihood of the people affected by the shocking event.

6.1.7 Pro-poor Initiatives in Urban Areas

It is reported that significant sections of the urban population live in unhealthy neighbourhoods without access to basic services. Women and children suffer most from these conditions of deprivation. In Colombo city alone there are nearly 65,000 families living in underserved settlements. With the growing urban population, under-served settlements are becoming a character in other cities. These underserved settlements need better shelter, access to adequate basic services, social acceptance and

to be partners of the economy. Improvement of the quality of life of the urban poor through the urban renewal programme will reduce the dilapidated conditions in underserved settlements in cities. The political manifesto of the government 'Mahinda Chintana' indicates that 65,000 housing units will be constructed for those living in unauthorized and temporary dwellings in the city of Colombo. A multi-faceted approach to improve the urban underserved settlements has identified key strategies namely:

- Establishment of capital cost sharing mechanisms among users
- Promoting domestic capital for urban low-income housing
- Cross subsidy for low-income housing
- Grants for urban poor

Developing bankable low-income housing projects will be a new initiative of the government and to attract domestic capital market as a significant source of funding, a community led repayment scheme is to be introduced. To supplement this mechanism it is intended to setup a Low-income Housing Guarantee Fund with the objective of overcoming the collateral issues which is the major barrier for urban informal sector earners to raise funds from commercial banks.

6.1.8 Urban Environment and Resource Management

Each urban area has its own mix of environmental problems, partly linked to its own local environmental context and prevailing socio-economic conditions and partly linked to development activities. In general, over exploitation of resources, poorly maintained natural resources and lack of effective regulatory framework and institutional mechanisms are some of the contributory factors for depleting conditions in urban environment in the country. Healthy environment is an essential element of sustainable urban development. A multi-dimensional approach recognizing all inter-linkages between environment protection and infrastructure development is a major concern in the development efforts. The government has recently instigated important policy initiatives to strengthen the regulatory framework mainly in the areas of protecting water bodies, canal systems and wetlands in urban areas. Furthermore, the Government is committed to invest in urban environment improvement projects and priority will be placed on the projects to address the issue of degradation of urban water bodies. Hence, the future projects and programmes will be focused on flood control and water quality improvements, environmentally sensitive catchment area development, environmentally sustainable land reclamation for development and, participatory environment and sanitation improvement in urban under-served settlements.

6.1.8.1 Urban Governance

Urban centres should be the place for the economy, politics, culture, and life for many people. But production activities are in the limelight of many cities and haphazard development has caused problems of traffic congestion, pollution of water bodies, poorly designed building structures, and an increased social unrest. Local authorities are unable to provide the services to the citizens satisfactorily.

What the urban centres needed today is the use of limited space effectively ensuring residents can reside without discomfort and feel inner satisfaction, such as relaxation and comfort.

The National Spatial Plan enables physical-planning agencies to mobilize their resources effectively and facilitate capacity building in local authorities as the local authorities themselves are to be finally in-charge of maintaining the urban services. In this context, expediting the preparation of city development plans through integrated participatory planning approach with wider stakeholder consultation is a major task. Of 191 urban areas declared in the country, at present only 10 urban plans have been in place and it is expected to complete urban plans for the declared urban areas by 2010. The declaration of development plans for these identified rapidly developing areas will curtail the disorganized urban infrastructure development, which leads to major environmental and socio-cultural problems.

In this scenario, preparation of city development plans through integrated urbanization planning approach is an essential element to address the challenging urban characteristics in Sri Lanka.

6.1.8.2 Strengthening Urban Governance Capacity

With the ambition of up-scaling, number of urban governance, practices have been field tested in different cities with the assistance of international and local expertise to promote good urban governance. Some of these initiatives demonstrated positive results in urban good governance and need to up-scale to the national level as 'best practices'. A national level programme on Institutionalization of Good Urban Governance Practices is an essential plan of action for implementation within next three years. Institutionalization of best practices will ensure effective service delivery to the urban population and contribute to eradicate urban poverty.

6.1.9 Localizing MDGs

The challenges and opportunities for Millennium Development Goals (MDGs) are varied. Although national performance of Sri Lanka is placed well on the path of achieving MDGs, 2002 Survey by the Department of Census and Statistics found that there were sharp variances at regional level. The survey showed wide discrepancies in poverty between districts and increases in head count ratio of poverty in certain backward districts. There are differences in the performance of several areas of MDG concerns between provinces, between districts, between cities and even between settlements in the same city as majority of the national MDG programmes are structured in a macro framework along sectoral priorities and have their own delivery systems.

Action Plans on localizing MDGs for cities will be translated into development interventions aiming at reducing poverty and narrowing the gaps between national and local indicators of MDG performance. The Government intends to initiate a national level programme to formulate local MDG actions based on the citywide MDG profiles with a timeframe of three years. Citywide MDG profiles will be used as a tool for strategic planning, resource allocation and enhancing capacities of local authorities.

Table 6.2: Public and Private Investments in Urban Development (2007-2016) Rs. Mn.

Project/ Programme	Funding Source	2007-2009	2010-2012	2013-2016	2007-2016
1. Urban Infrastructure	Treasury/ Foreign Assistance	7,086	3,050	2,509	12,645
• Greater Hambantota Development					
• Greater Galle Development	Treasury/ Capital Market	5,635	3,180	-	8,815
• Greater Trincomalee Development	Treasury/ Capital Market	3,000	865	-	3,865
• Greater Dambulla Development	Treasury/ Capital Market	16,020	14,100	8,450	38,570
• Kotte Sri Jayawardenepura Development	Treasury/ Capital Market	2,800	1,238	-	4,038
• Panchikawatte Triangle Development	Treasury/ Capital Market	3,500	10,500	10,000	24,000
• Development of Colombo Core Area	Treasury/ Capital Market	19,620	10,900	8,050	38,570
• Regional Growth Centres and Secondary Town Centres	Treasury/ Capital Market	2,000	2,000	1,000	5,000
1. Urban Environment and Resource Management	Treasury/ Donors	10,951	3,186	-	14,137
3. Urban Governance	Treasury/ Donors	100	50	50	200
Total		70,712	49,069	30,059	149,840

6.2 Human Settlements

6.2.1 Introduction

On the basis that one family possess their own house, the present housing requirement of the country is estimated at 4.5 mn. However, the existing housing stock of the country is around 4.15 mn. Accordingly, the present housing backlog is nearly 350,000 units. The annual housing demand has been estimated around 100,000 units and annual addition to the housing stock has been reckoned approximately 50,000 units. This means 50,000 units should be newly added to the stock on annual basis in order to clear the backlog.

Where the quality of present housing stock is concerned, nearly 1.3 mn. housing units are of substandard level requiring urgent improvement or rehabilitation. Of this, 200,000 line rooms and temporary structures in the estate sector and 65,000 sub-standard houses in under-served settlements in the city of Colombo are in need of serious attention by the Government, since these inhabitants belong to socially disadvantaged community groups. It is significant to note that, approximately 98,000 houses were fully or partly damaged by tsunami and the Government is implementing a rapid programme to provide new houses or assist the victims to rehabilitate their houses with donor funding. Around, 326,000 houses were destroyed or damaged due to conflict in the North East and a separate programme is being implemented to provide new houses or repair the houses depending on the damage took place. Therefore, altogether the total housing units which require new construction and improvements is around 0.7 mn.

6.2.2 Key Issues in Settlements Development

- Inadequacy of guidelines on settlement planning at national and regional levels.
- Shortage of suitable land for residential purpose in urban areas.
- Rapid escalation of value of land in major cities and suburbs.
- Blocking out and selling of lands by private developers without proper utilities, mainly water supply, drainage system and internal roads.
- Difficulties in access to affordable housing for urban floating population and worker communities (underserved settlements, estate workers, fishing community etc.).
- Poor maintenance of urban housing schemes (condominium apartments) and burden to Government on their maintenance.
- Regular price increases in building materials and lack of their standards.

6.2.3 Long Term Policy Framework

The long term human settlements policy framework consists of the following elements:

- Ensure planned human settlements through adoption of new parameters based on criteria such as population density, land suitability and environmental sustainability. Adoption of such parameters for residential planning is needed in order to arrest the current trend of unplanned settlement expansion which causes environmental hazards and undue congestions. Design criteria for settlement planning must take in to account the changing lifestyle of people, demand for amenities, nature of livelihoods and other determinants such as ethnic and social behaviours.
- Adoption of vertical development approach in high and medium density areas and retaining dispersal developments in low density areas is needed. Pressure on urban housing will be minimized through providing adequate urban infrastructure in designated areas for cluster housing development/townships. Linear or ribbon type expansion of urban areas will be discouraged and satellite townships with easy access to commercial centres will be established in clusters.

- Participatory approach for housing development with close involvement of stakeholders such as Ministry of Housing, National Housing Development Authority, Provincial Councils, Local Authorities, Professional Bodies and other Regulatory Institutions will be adopted. This will help to ensure smooth implementation of housing programmes minimizing cross-cutting issues.
- A full fledged housing finance market operating through primary and secondary mortgage financing will be activated. Public owned home lending institutions such as the State Mortgage and Investment Bank and the Housing Development Finance Corporation Bank will be given freehand to improve their capital structure through market based strategies, allowing them to operate in the housing market in competitive manner. As an interim measure, concessionary financing will be obtained to meet the resource constraint in mobilizing housing loans for low-income groups.
- Public assistance for needy groups by way of concessionary financing and technical support will be introduced. In future, grant assistance will be confined to the poorest of the poor and disaster stricken communities. The public assistance will include concessionary loans, out right grants, material assistance, extension services, cost effective technologies and buildable lands.

6.2.4 Future Human Settlements Strategies :

- " Demarcation of suitable areas for residential purpose and provision of public utilities in line with the physical plans developed for each district/ division.
- " Promotion of house building by private developers and individual builders by creating a policy environment conducive to such activity. The Government will play a guiding and regulatory role.
- " Promotion of condominium development in urban areas subject to adherence to the requirements stipulated by the condominium law. The Government considers promotion of condominium development as the best solution to the scarcity of lands with respect to housing development in urban areas. The Condominium Management Authority will facilitate condominium development in urban areas.
- " Developing the rental housing for working people and migration workers within the close proximity to their work places. The Government will facilitate the rental housing market through introduction of new laws /amendments and provision of incentives.
- " Issuing title deeds to the tenants of all government owned housing schemes. After transferring the ownership to the occupants, the maintenance responsibility will be given to the respective local authorities while the Government plays the role of regulator instead of role of the landlord.
- " Construction of housing schemes for public and private sector employees through public-private partnerships. The possibilities of construction of affordable housing units for public and private sector employees with foreign assistance will also be explored.
- " Promotion of individual house builders through provision of concessionary loans and other required services through home lending agencies. Housing loans for individual house builders in the formal sector will be facilitated through easy access to collateral security based on EPF and ETF contribution.
- " Promotion of self-help approach for low-income families and other vulnerable groups (grant - loan mix).
- " Relocation of slum and shanty dwellers through REEL process with the twin objectives of re-housing of such dwellers in modern type apartments and liberation of illegally occupied lands for development purposes.

Table 6.3: Human Settlements: Sub-Programmes and Investments

	Policy Priority	Programme	Physical Target	Financial Requirement (Rs. Mn.)				Investment Strategy
				2007-2009	2010-1012	2013-2016	2007-2016	
1	Planned residential development	▪ Village housing support programme under "Gama Neguma"	300,000 Housing units	7,500	8,000	8,400	23,900	Treasury/Community participation
		▪ Housing schemes for slums and shanty dwellers	75,000 Housing units	35,000	25,000		60,000	Treasury/Private Developers
		▪ Housing scheme for public sector employees	3,000 Housing units	2,420	2,500	3,000	7,920	NHDA/HDFC/Private Sector Funding
		▪ PPP for condominium property development	37,000 Housing units	2,500	3,000	3,645	9,145	Private Developers
		▪ Introduction of national guidelines on settlement planning		5	6	8	19	Treasury/Foreign Assistance
		Sub Total	415,000	47,425	38,506	15,053	100,984	
2	Special housing schemes for vulnerable community groups	▪ Fisheries Housing	20,000 Housing units	1,735	1,900	2,000	5,635	Treasury/Foreign Assistance
		Sub Total	20,000	1,735	1,900	2,000	5,635	
3	Facilitation of individuals and private developers in residential development	▪ Migrant worker housing programme	20,000 Housing units	5,000	7,000	8,000	20,000	Private Funding
		▪ Releasing land parcels at concessional rates	100,000 Housing units					
		▪ Providing connectivity and other infrastructure	45,000 Housing units	100,000	125,000	190,000	415,000	Private Developers

	Policy Priority	Programme	Physical Target	Financial Requirement (Rs. Mn.)				Investment Strategy
				2007-2009	2010-1012	2013-2016	2007-2016	
		building sites						
		Sub Total	165,000	105,000	132,000	198,000	435,000	
4	Rental housing/ accommodation facilities	<ul style="list-style-type: none"> ▪Strengthening housing finance market through improvement of capital structure of housing loan institutions 	5,000	1,500	2,000	2,500	6,000	Financial Institutions
		<ul style="list-style-type: none"> ▪Introduction of suitable legal instruments 						
		Sub Total	5,000	1,500	2,000	2,500	6,000	
5	Strengthening the housing finance market	<ul style="list-style-type: none"> ▪Development of primary and secondary mortgage financing 						
		<ul style="list-style-type: none"> ▪Concessional housing loan scheme for Sri Lankans employed abroad 	20,000 Housing units	5,000	7,000	8,000	20,000	Financial Institutions/ Foreign Employment Bureau
		<ul style="list-style-type: none"> ▪Housing loan scheme for private sector employees through ETF 	20,000 Housing units	8,000	10,000	12,000	30,000	Financial Institutions/ Employees' Trust Fund
		Sub Total	40,000	13,000	17,000	20,000	50,000	
6	Ensure property rights	<ul style="list-style-type: none"> ▪Issue of title deeds to all tenants of government housing schemes 						
		Sub Total						
	Total		645,000	168,660	191,406	237,553	597,619	

7. Livelihood Development and Social Protection

7.1 Introduction

Livelihood Development and Social Protection consists of a three-pronged strategy: (1) Livelihood Development, (2) Social Protection and (3) Disaster Mitigation and Risk Management. The overall vision for the plan is a country in which people are empowered to develop and sustain their livelihoods and improve their standards of living, with special care being taken by the society to ensure that vulnerable people and geographical areas are adequately protected from risks including risks to life and sustenance arising from various sources and are not left behind in the process of development, so that poverty, hunger, deprivation have ceased to have any significance.

7.2 Livelihood Development

7.2.1 Situation

Poverty in Sri Lanka is a multi-dimensional phenomenon. In addition to low incomes that lead to an inability to satisfy the basic consumer needs, the poor have to contend with gaps in access to good education and health care, quality shelter, water and sanitation. These in turn stifle individual initiative and the drive for personal advancement – qualities essential to break out of the vicious circle of poverty.

The poverty ratio at national level is 23 percent in terms of poverty headcount ratio. This means that 3 to 5 mn. people are affected. In addition it has been found that the non-poor are closely clustered just above the poverty line so that the number of poor is subject to sharp increases when slight changes in economic conditions occur. In the rural and urban sectors the headcount ratios are 25 and 8 percent respectively, and therefore, poverty is by and large a rural phenomenon and mainly explained as inability of rural economy to provide adequate livelihood opportunities to the local people in a sustainable manner. Geographically, poverty is mainly concentrated in the districts in the North and East and few districts such as Badulla, Moneragala and Ratnapura in the South. On the average, poverty level has increased from 32 percent to 36 percent in these poorest districts during last decade.

7.2.2 Policy and Strategy

Even though economic growth is essential to reduce poverty, the experience during the last few decades suggests that the fruits of growth do not trickle down to the poor automatically. Therefore there is a need to re-design the development programmes to give a larger share of the benefits to the poor.

However, the Government believes that the provision of cash grants does not help to moving out the people from poverty trap. Therefore, new strategic initiatives will be introduced to create opportunities for the poor in the participation of economic growth process in productive manner. The strategy of creating opportunities for the poor will be characterized by:

- Focus on livelihood developments to provide sustained income avenues for poor families.
- Creation by the Government of a conducive environment for the poor to develop livelihood opportunities through the provision of concessionary funding, technical know-how, improved infrastructure and marketing facilities.
- Invest in special poverty reduction projects and programmes in the poor rural areas to address the issue of severe regional disparities in development and poverty incidence.
- Improved coordination of such projects and programmes that have been implemented for the promotion of pro-poor livelihood development at divisional level in a bid to synergize them and avoid possible duplication of works.

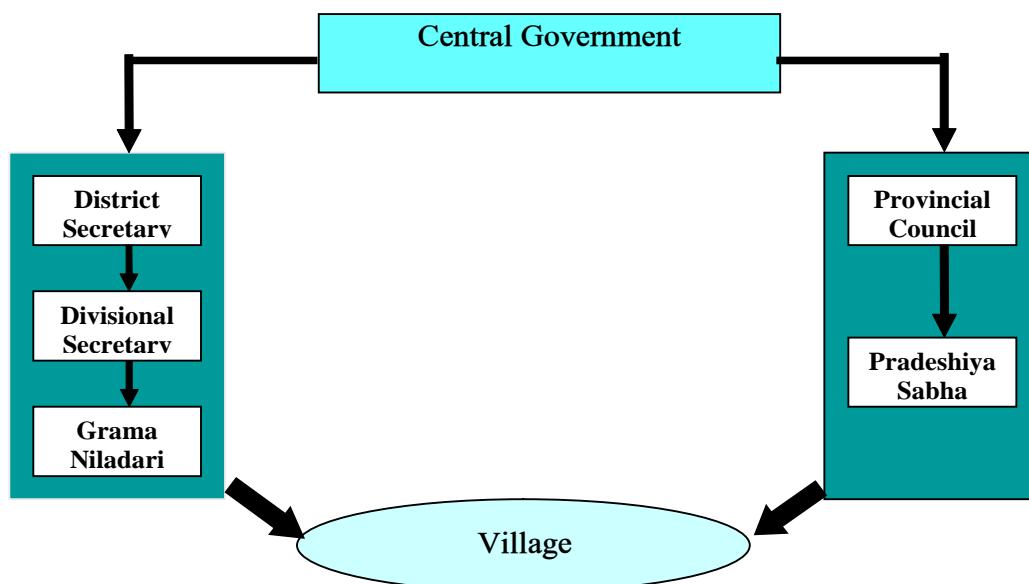
- Use of the proposed Grama Sabha and Jana Sabha institutions to create an appropriate platform at village and divisional level to articulate pro-poor livelihood improvement projects and programmes into comprehensive local plan, with effective participation by the community in conceptualization, preparation, appraisal, implementation and monitoring and evaluation stages.
- Use of micro financing as an effective instrument for livelihood development and poverty reduction through generation of income opportunities for the poor. This is because such credit enables poor people to engage themselves in their own small enterprises thereby raising the income and accumulating assets.
- While improving the means of livelihood development, the Government will continue the relief assistance aimed at economically and socially disadvantaged people through payment of direct cash grants. The Samurdhi cash grant, relief assistance to Internally Displaced People, relief programmes to differently abled persons and housing programmes focused on less affordable people are the most effective measures among them. Where the Samurdhi beneficiaries are concerned, measures will be taken to double their monthly income through livelihood improvements.

7.2.3 Gama Neguma: Flourishing Countryside and Villages

Gama Neguma is the major rural development programme of the National Development Plan. For a long time, our country has been a land of village communities. Large majority of population live in the rural areas. Therefore, any development initiative should give due recognition to this reality, if it is to be successful. The Government believes that our village, while retaining its strengths and impressive features, can be developed as a micro center of growth with the vision that village has to be a decent and comfortable place for people to live, work and engage in their cultural and communal activities.

The key policy objective of the Government with regard to rural development is to develop all villages in the country so that they emerge as micro-centres of growth on modern lines. Gama Neguma (Village Upliftment) will be the main rural development programme, bringing together a number of more specific programmes focused on livelihood development and poverty reduction at village level.

At present, there are two main channels for delivering Government programmes to the villages: one, the decentralized system comprising the District Secretariats, Divisional Secretariats and the Grama Niladari; and two, the devolved system, comprising the Provincial Councils and the Local Government Authorities particularly, Pradeshiya Sabhas.



As shown in the above chart, the programmes are delivered in an isolated manner both within each channel and also between the two channels. In the process, some duplication and inefficiency may occur. The Gama Neguma Programme aims to influence, and as necessary to change, the administrative and service delivery structures and processes, to ensure that maximum benefits accrue to the villages from the programmes that are being delivered.

In order to bring together, rationalize and synergize all the development programmes and service delivery mechanisms (that is, Government, NGOs, Community Base Organisations – CBOs, private sector, etc), the institutions of Grama Sabha and Jana Sabha will be introduced.

- Grama Sabha: at the village level, Grama Sabha will analyse, prioritize and prepare development plans for village development with the participation of Government officers, local leaders, NGOs, CBOs and the entrepreneurs.
- Jana Sabha: at the Division Secretariat level, Jana Sabha will consolidate the village development plans, and prioritize the proposals into a Divisional Development Plan. Through this process the Divisional Secretariat will be further strengthened.

In particular, Gama Neguma will ensure that the commitment of Mahinda Chinthana is realised whereby each village has the following basic services:

- Electricity
- Access to drinking water without restrictions.
- Developed access roads.
- Schools with adequate human and physical resources.
- Health centers.
- Pre - school.
- Play grounds and community centers.
- Market centres.
- A factory to generate employment.

Table 7.1: Gama Neguma – Objectives and Sub-Programmes

Priority Areas	Objectives	Programmes
(a) Mobilizing all rural development efforts to one development programme	<ul style="list-style-type: none"> • Construction and rehabilitation of vital infrastructure in backward villages. • Increase effectiveness of the role played by local level community organizations, government institutions, local authorities and other actors in the development process. • Maximization of people’s participation in all stages of the development process. 	<ul style="list-style-type: none"> • Implementation of Gama Neguma programme adopting people’s participation methodology in a wider sense • Decentralised Budget (DCB). • Gemi Diriya – village infrastructure and enterprise development. • Maga Neguma – Rural road development.
(b) Good governance at local level and widening the scope of service delivery of the local authorities	<ul style="list-style-type: none"> • Local self-government based on people’s perceptions for up-liftman of the living conditions of people. • Facilitating the implementation of Gama Neguma 	<ul style="list-style-type: none"> • Establishment of Grama Sabhas and Jana Sabhas. • Preparation of Village Development Plans and articulation of them at divisional level.
(c) Bringing ICT to the village	<ul style="list-style-type: none"> • Establishment of knowledge centres and e-libraries in every village. 	<ul style="list-style-type: none"> • Nena Sala – Technology Resource Centres. • Technology to village.
(d) Conservation and	Best use of forest resources while	Participatory forestry

(d) Conservation and management of forest resources for the benefit of local people	<ul style="list-style-type: none"> • Best use of forest resources while conserving it. • Adopting participatory and collaborative approach in forest resource management 	<ul style="list-style-type: none"> • Participatory forestry programmes • Osu Gammana – Herbal Farming Villages Programme
(e) Facilitating construction & improvement of houses in the village	<ul style="list-style-type: none"> • A decent house for every family. • Providing additional income generating activities in the construction industry at village level 	<ul style="list-style-type: none"> • Jana Sevana - Village Housing Construction Programme. • Distribution of plot of lands.
(f) Small and cottage industry development	<ul style="list-style-type: none"> • Increased productivity, quality and marketing arrangements for the products of this sector. • Improved and expanded markets for traditional crafts. 	<ul style="list-style-type: none"> • Productivity improvement and marketing programmes • 1,000 Industrial Villages Programme • Kiri Gammana – Dairy Villages Programme • Micro credit Programme

7.2.4 Samurdhi Programme

The Samurdhi Programme is the major poverty alleviation programme of the country. This comprises two main components namely, Cash Grant Programme and Livelihood Development through supportive measures. The entire Samurdhi Programme is now in the reform process giving particular attention to introduction of efficient entry and exit mechanisms. While confining the cash grants for needy families who are in abject poverty, the other marginal groups are expected to be graduated through income supported projects. The Jana Pubuduwa and Gam Pubuduwa programmes which focus on entrepreneurial development of the poor families and infrastructure development at village level respectively, are mainly for taking out the poor from the existing poverty trap.

Table 7.2: Samurdhi Programme: Objectives and Sub Programmes

Priority Areas	Objectives	Programmes
(a) Livelihood Development <ul style="list-style-type: none"> ▪ The purpose of livelihood development support programme is to enable Samurdhi recipients to commence income-earning activities. 	<ul style="list-style-type: none"> • Increase the monthly income of recipients. • Move out the poor people from dependency syndrome. • Gradual decrease in Samurdhi relief assistance. 	<ul style="list-style-type: none"> • Expansion of Samurdhi banks' loans and insurance programmes through Jana Pubuduwa. • Improving infrastructure at village level through Gam Pubuduwa. • Purchase of agricultural and dairy products of Samurdhi families. • Provision of Rs 100,000 loan for economic empowerment of Samurdhi families.

**Table 7.3: Public Investment for Livelihood Developments
2007-2016**

Project	Rs. Mn.			
	2007-2009	2010-2012	2013-2016	2007-2016
Gam Pubuduwa	2,160	2,280	3,180	7,620
Jana Pubuduwa	325	375	390	1,090
Gemidiriya	3,350	-	-	3,350
Total	5,835	2,655	3,570	12,060

7.2.5 Micro Finance

7.2.5.1 The Existing Situation

Microfinance in Sri Lanka has a long tradition. It has been regarded as an effective instrument for reduction of poverty through the creation of jobs for the poor and restoration of their livelihood. At present, microfinance is practiced by many actors that range from ministries to commercial banks, specialized banks, registered finance company and informal lenders. Many donors and NGOs also support to improve the accessibility of poor people to financial services. The government of Sri Lanka is the major provider of financial services through various agencies. About 65 percent of the total micro credit in the country is provided by the government.

According to a survey conducted by the Consultative Group to Assist the Poorest (CGAP), microfinance in Sri Lanka has achieved impressive outreach; with more than 15 million deposit accounts and 2 million outstanding micro loans from a population of 20 million people. In addition to micro loans, working capital, trade finance, investment credit, crop loans and savings facilities are the most common services provided. Notwithstanding this achievement, several challenges hinder the development of an effective and sustainable microfinance sector in the country.

7.2.5.2 Issues and Challenges:

At present a microfinance policy is not found in the country. In consequence, there is no institutionalized mechanism to coordinate the microfinance interventions with other policies, which have been formulated for rural development. In this environment the sector has been fragmented. Responsibilities in the sector are scattered among different agencies, which in part have quite different views of the role of the microfinance sector in the development process of Sri Lanka.

The supervisory and regulatory framework are found for commercial banks, specialized banks, finance companies and regional development banks with the Central Bank of Sri Lanka being the supervisory body. There is a very rough framework for Co-operative Rural Banks. However, no regulations are found for Micro Finance Institutions (MFIs) and NGOs. The absence of a unique policy and supervisory framework has allowed the proliferation of fundamentally unsustainable MFIs which weakens governance, diminishes the institutional autonomy, exacerbates the lack of enforcement of financial prudence and does not provide for transformation of MFIs and NGOs into depository institutions or regularize their savings activities.

The lack of institutions for specialized training and research in microfinance is a major issue. The training programme conducted by certain government agencies and NGOs do not meet the entire requirements of the sector. They do not offer a comprehensive curriculum that is consistent with microfinance best practices, which is a requirement of the majority of MFIs. Some semiformal MFIs are unaware of their need for such training. Further, the academic courses in microfinance are not found in universities. The dearth in training and research activities has contributed to the fragile nature of the sector and weaknesses such as substandard portfolio management, low qualifications of the staff, shortage of clear business concepts, obsolete accounting standards and the rudimentary level of information technology.

The financial results of the majority of MFIs, have failed to conform to internationally accepted standard for sustainability. Their financial viability is deteriorating. Services offered do not sufficiently take into account the needs of the target group. Supply as a whole is not differentiated enough and the terms of credit have a rather prohibitive effect on clients. The long – term credits are lacking. Supply of financial services also differs from region to region. The offers are deficient since they are mainly used by non-poor or people close to the poverty line. The microfinance financial services system needs to have a broader outreach to the poor and very poor members of the population.

MFIs lack a mechanism for information and knowledge sharing nationwide and internationally. Therefore, lessons and microfinance industry best practices (e.g. accounting, auditing, risk management) are unknown or not in practice, reducing the opportunity for learning and adding value to current services. Weak regional linkages result in lack of quality, expansion and depth of outreach. Credit innovations remain limited and linkages to non- financial service providers do not exist.

Sri Lanka does not have an association of MFIs. As a result there is no dialogue among microfinance practitioners. This is an impediment to develop a stakeholders' policy dialogue with the government.

Currently, micro finance exposure of commercial banks is limited to a few programmes. The lack of skills of the staff in the delivery of microfinance services and the reluctance to allocate sufficient resources have attributed to this limitation. Improvements in staff orientation, as well as skills for credit appraisal, delivery and monitoring will serve to enlarge the scope of commercial banks participation in micro finance.

The poorest group is reached only by way of group-guaranteed loans, which are mainly provided by NGOs. However, the majority of NGOs which number around 200, are operationally and financially weak. Their transaction cost is significantly high and the recovery is low. These defects have compelled NGOs to charge high rates of interest and keep collaterals for loans. These practices have adversely impacted on the development of microfinance in rural areas.

7.2.5.3 Goals

Sri Lanka will have a flourishing and strong microfinance sector in the next decade. It will involve in the provision of sustainable and poverty focused financial services, which include loans to micro and small enterprises as well as to poor households for the most various needs. The mobilization of savings, transfers and insurance services, will also be undertaken in an effective and efficient manner.

About 500,000 new micro enterprises will be erected throughout the country and about 10 percent of the existing micro businesses will be promoted to the category of small industries. As a result of these developments, both unemployment and poverty in the country will drop by 2 percent.

7.2.5.4 Strategies

The development of the microfinance sector consists of a number of components.

- A policy and strategy for microfinance sector will be formulated in coordination with the relevant government agencies and in dialogue with stakeholders of the sector.
- A high level body will be set up with sufficient members who are in a position to develop and implement microfinance concepts. This process will assist the policy makers to mobilize the technical and financial support services towards the productive areas of micro businesses and create an uniformity in the microfinance sector.
- A separate unit will be established in the Central Bank of Sri Lanka for effective supervision and regulation of microfinance agencies and create legal provision for enhancing the participation of non governmental agencies and other private sector initiatives in microfinance.
- A scheme of reform will be undertaken to make the necessary changes in microfinance institutions run by the Government. (National Development Trust Fund, Cooperative Rural Banks, Regional Development Banks and Samurdhi Banking Societies). The proposed reforms will enable these institutions to generate more savings, expand the outreach and increase the efficiency of the service delivery.
- A system will be introduced to link the micro enterprise sector with the small and medium industry sector. In this process a cluster based development framework will be adopted. The proposed

strategy will ensure a permanent market for rural products and thereby the sustainability of micro enterprises.

- A network between microfinance stakeholders will be established for exchange of information and good practices as well as for policy dialogue with the government.
- The capacity of providers of microfinance training, knowledge and information service will be strengthened to promote the industry standard and increase the professionalism of microfinance sector.
- The apex microfinance agencies will be strengthened for channeling long term refinancing funds to microfinance agencies.

Table 7.4: Micro Finance for Livelihood Development - 2007-2016

(Rs.Mn.)				
Source of Investment	2007-2009	2010-2012	2013-2016	2007-2016
Government				
Central Bank	432	600	800	1,832
National Development Trust Fund	1,840	3,000	6,000	10,840
Co-operative Rural Banks	17,000	20,000	23,000	60,000
Regional Development Banks	847	1,500	3,00	5,347
Samurdhi Authority	7,000	7,250	7,750	22,000
Thrift and Credit Co-operative Societies	545	1,000	3,000	4,545
Sub Total	27,664	33,350	43,550	104,564
Commercial Banks				
Bank of Ceylon	1,831	2,500	3,500	7,831
People's Bank	1,940	2,600	3,100	7,640
Hatton National Bank	379	500	1,000	1,879
Seylan Bank	99	125	150	374
Sub Total	4,249	5,725	7,750	17,724
NGOs				
SANASA	1,020	1,500	2,500	5,020
SEEDS	2,603	3,000	4,000	9,603
Janashakthi	35	100	200	335
Sub Total	3,658	4,600	6,700	14,958
Others				
	128	200	400	728
Sub Total	128	200	400	728
Total	35,699	43,875	58,400	137,974

7.2.6 Area Based Livelihood Development

Development programmes targeted for specific regions have been identified as a dynamic way to promote development, particularly to alleviate poverty through livelihood development. This will also create maximum synergy between role players to achieve area specific development objectives through making full use of the resources available in the regions. This approach also makes it possible for regions to increase their own GDP while enhancing their capacity to contribute to the national economy.

7.2.6.1 Senkadagala Revival

Under the Senkadagala revival, Kotmale, Ukuwela and Digana will be developed as model periphery regions through establishment of economic zones. The strategy involves: Development of suitable and appropriate industries; Development of traditional Kandyan industries; Addressing the problem of landlessness among the Kandyan peasantry; Development of peripheral villages; Addressing environmental problems faced in the area.

Table 7.5: Senkadagala Revival: Objectives and Sub Programmes

Priority Areas	Objectives	Programmes
(a) Industrial development	<ul style="list-style-type: none"> • Increased number, output and revenue of local industries • Productive off farm job opportunities. 	<ul style="list-style-type: none"> • Financial assistance through “Lanka Puthra” Bank. • Establishment of three economic zones in Kotmale, Digana and Ukuwela.
(b) Land ownership	<ul style="list-style-type: none"> • Reduced landlessness in Kandyan peasantry population. 	<ul style="list-style-type: none"> • Sekandagala land alienation programme.
(c) Modernization of periphery villages	<ul style="list-style-type: none"> • Modern facilities to each village. 	<ul style="list-style-type: none"> • Periphery villages development programme. • Provision of quality services required.

7.2.6.2 Rajarata Reawakening

Rajarata is an area with rich cultural heritage. The region is still lagging behind in using its full potential to contribute to the national economy and developing capacity to absorb benefits of mainstream development of the country. The programme is aimed at bridging this gap through infrastructure and institutional development programmes. The strategy for Rajarata reawakening is centred on self-sustained villages and the preservation of culture and heritage.

Table 7.6: Rajarata Reawakening – Objectives and Sub- Programmes

Priority Areas	Objectives	Programmes
(a) Self-sustained village development.	<ul style="list-style-type: none"> • Villages developed in Anuradhapura and Polonaruwa Districts 	<ul style="list-style-type: none"> • Improvement of irrigation facilities. • Rajarata Village Development Programme – support by Gama Neguma and Maga Neguma
(b) Development of religious and cultural places.	<ul style="list-style-type: none"> • Conservation of religious places in Anuradhapura and Polonnaruwa • Improved pilgrim facilities 	<ul style="list-style-type: none"> • Programme for conservation of religious places (Sacred Cities) • Pilgrim amenities development – transport, lodging and other

7.2.6.3 North-West Revival

The North-West is emerging as a region with a dynamic industrial / processing network based on agricultural and other local raw material. Government facilitates these developments through improvement of infrastructure and other services. Rehabilitation and conservation of places of cultural and historical importance is also an objective of the programme.

Table 7.7: North-West Revival - Objectives and Sub Programmes

Table 7.7: North-West Revival - Objectives and Sub Programmes

Priority Areas	Objectives	Programmes
(a) Conservation and development of North-West Culture and Heritage square	<ul style="list-style-type: none"> • Increased cultural tourism 	<ul style="list-style-type: none"> • Rehabilitation and conservation of cultural square consisting Panduwasnuwara, Dambadeniya, Yapahuwa and Ethugalpura
(b) Rural Infrastructure Development	<ul style="list-style-type: none"> • Improved infrastructure for SME development 	<ul style="list-style-type: none"> • Rural road development • Rural electrification • Rural market centres
(a) Irrigation Improvement	<ul style="list-style-type: none"> • Improved irrigation facilities to farmers 	<ul style="list-style-type: none"> • Irrigation improvement in the Deduru-oya Basin

7.2.6.4 Uva – Wellessa Awakening

In the days when Sri Lanka used to be known around the world as the Granary of the East, Uva – Wellassa – ‘The Land of Hundred Thousand Paddy Fields – once occupied the foremost position in the country’s thriving food industry. It is the intention of the Government to develop the Uva-Wellassa area to regain the past glory of irrigated agriculture and to make the area attractive to new investors in non-farm activities. The main strategy for doing this comprises specially targeted integrated area development programme that incorporates: specially targeted livelihoods development and poverty reduction; improvement of basic infrastructure and service facilities; reducing the isolation of Uva–Wellassa by improving infrastructure that connects the area with the country, the Asia region and global markets; targeting Uva-Wellassa with modern industries and services; paying attention and developing activities, especially niche markets, in which Uva – Wellassa’s comparative advantages excel such as biotechnology, organic farming, agro- and eco-tourism, and so forth.

Table 7.8: Uva – Wellassa Awakening - Targets and Sub Programmes

Priority Areas	Objectives	Programmes
(a) Ending isolation of Uva Wellassa and reviving it a major socio- economic region of Sri Lanka	<ul style="list-style-type: none"> • Reduce commuting time between the main service centres in Uva – Wellassa (Badulla, Haputalle, Welawaya Moneragala, etc) from the current 8-10 hours to 4–6 hours by 2012. • Increase the contribution of Uva - Wellassa to GDP from around 4% in 2005 to 6% in 2012 and 8% in 2015. • Increase per capita income in Uva – Wellassa from around Rs. 3000 per month in 2005 to around Rs. 6,000 in 2012 and Rs. 9,000 in 2015. 	<ul style="list-style-type: none"> • Accelerated Pubudamu Wellassa development programme covering <ul style="list-style-type: none"> - Small town development. - Community water supply development. - Rural roads development - Rural electrification. - Rural markets development - Establishment of Health Centres. - Library improvements.

Table 7.9: Public Investment for Area based Livelihood Development (2007-2016)

Project/ Programme	(Rs.Mn.)			
	2007-2009	2010-2012	2013-2016	2007-2016
Senkadagala Revival	765	800	850	2,415
Rajarata Reawakening	718	750	800	2,278
North West Revival	600	700	900	2,200
Uva Wellassa Awakening	780	800	800	2,380
Regional Economic Advancement Projects (Southern Province and Matale)	3,255	-	-	3,255
Total	6,118	3,050	3,350	12,518

7.2.7 A New Life for Plantation Worker Community

The policy of the Government with regard to the livelihood and welfare of people who live and work in the estates is that these citizens of Sri Lanka must get a better deal. Under the banner of “New Life for the Plantation Areas”, the aim of the Government is to support the plantation community to live with social dignity like any other group. The strategy for achieving this involves:

Health

- Improve quality and access to preventive health through delivery of full range of health services.
- Improve quality and access to curative health through improved infrastructure facilities and well trained medical staff.

Education

- Improve early childhood care and education by construction of crèche cum pre-school complexes, recruitment of new teachers and provision of better training to teachers.
- Provide universal compulsory education of good quality for children through development of infrastructure, training of teachers and motivation of parents to keep their children in schools.
- Improve access, quality and equity in secondary education through upgrading the existing schools, training of teachers and development of extra curricular activities.
- Improve access and quality of non-formal education by strengthening activity learning centres and community learning centres.

Employment and Vocational Training

- Upgrade working conditions of the plantations workers by providing welfare facilities and developing good relationships between workers and management.
- Expand employment opportunities for plantation youth by providing career guidance and vocational training.
- Provide opportunities to acquire skills development through promotion of entrepreneurship development and introduction of micro-credit schemes.

Housing, Water Supply and Sanitation

- Undertake a comprehensive housing development, based on self-help approach characterized by provision of land, housing loans and in-kind grants.
- Provide adequate drinking water and sanitation in par with the standards of rest of the country by strengthening the existing CBOs and Estate Worker's Housing Cooperative Societies (EWHCs) to implement the water supply and sanitation programmes.

Roads, Electricity and Communications

- Facilitate the convenient movement within estate and to outside locality by rehabilitating 8,000 km. estate roads and 200 km. link roads.
- Provide electricity to needy households through national grid or other alternative sources.
- Ensure access to communication through delivery of letters to the doorstep and provision of telephone facilities through CDMA.

Community Development and Gender Equity

- Empowering the plantation community through development of sports recreation facilities and culture.
- Ensuring the gender equity to recognize the women's participation at all levels.

Table 7.10: Plantation Worker Community Development - Objectives and Sub Programmes

Priority Areas	Targets	Programmes
(a) Health	<ul style="list-style-type: none"> • Improved delivery of full range of preventive health services. 	<ul style="list-style-type: none"> • Establishment of MOH areas in estates according to national norms. • Re-demarcation of Public Health Midwives and Public Health Inspector areas. • Filling the existing vacancies in health sector in estate sector. • Construction of required offices and quarters for MOHs, Midwives and PHIs. • Provision of 11 vehicles and 48 motorbikes for MOHs and PHIs. • Provision of in-service training to estate Medical Assistants and Midwives.

	<ul style="list-style-type: none"> • Improved curative health services by taking over estate hospitals and improvement of maternity wards and dispensaries run by RPCs. 	<ul style="list-style-type: none"> • Construction of OPD buildings, clinic rooms, wards and mortuaries. • Construction of quarters for Doctors, Nurses and minor staff. • Provision of ambulances and telephone facilities. • Provision of other basic amenities such as electricity and water.
(b) Education	<ul style="list-style-type: none"> • Early childhood development of 75% of estate children. 	<ul style="list-style-type: none"> • Establishment of creche cum pre-school complexes in <ul style="list-style-type: none"> - 1,544 RPC estates - 200 private estates • Recruitment and training of 1,744 pre-school teachers. • Introduction of nutrition programmes. • Awareness programme for parents to insist the need of the early childhood education.
	<ul style="list-style-type: none"> • Near-universal participation in compulsory education and mastery of learning competencies. 	<ul style="list-style-type: none"> • Reintegrating 10,000 drop out children into school system. • Upgrading the 270 Type 3 schools and extend the classes up to grade 9 in another 300 Type 3 schools. • Recruitment and training of 1,500 teachers. • Provision of infrastructure and physical resources. • Motivation parents to keep their children in schools.
	<ul style="list-style-type: none"> • Increased access to senior secondary education and improved performance at GCE (O/L) and GCE (A/L). 	<ul style="list-style-type: none"> • Upgrading the infrastructure and physical facilities in Type 2 and Type 1C schools. <ul style="list-style-type: none"> - Additional class rooms - Science laboratories - Computer rooms - Activity rooms - Quarters • Developing/enhancing the professional competency of teachers, principals, ISAs and subject Directors.
	<ul style="list-style-type: none"> • Increased literacy and skills of out of school youth and adults. 	<ul style="list-style-type: none"> • Provision of literacy training through activity learning centres. • Provision of skills training for out of school youth. • Establishment of community learning centres.
(c) Employment and Vocational Training	<ul style="list-style-type: none"> • Improved working condition and productivity. 	<ul style="list-style-type: none"> • Construction of weighting sheds and rest rooms. • Provision of uniforms.
	<ul style="list-style-type: none"> • Competency enhancement of estate youth. 	<ul style="list-style-type: none"> • Provision of career orientation programme for 60,000 youth. • Upgrading the Thondaman Vocational Centre. • Establishment of 03 new vocational training centres. • Improvement of access to information and communication facilities. <ul style="list-style-type: none"> Community radio, TV - Networking with local chambers
(d) Housing, Water Supply & Sanitation	<ul style="list-style-type: none"> • A contented plantation community with satisfied shelter. 	<ul style="list-style-type: none"> • Construction of 50,000 houses under the "Jana Sevana" programme. • Construction of 110,000 houses in the medium term.

	<ul style="list-style-type: none"> • Access to improved basic amenities. 	<ul style="list-style-type: none"> • Provision of safe and adequate water supply to needy families. • Provision of sanitation facilities. • Construction of toilets with houses.
(e) Roads, Electricity and Communication	<ul style="list-style-type: none"> • Upgraded access roads and improved link roads. 	<ul style="list-style-type: none"> • Rehabilitation of 8,000 km. estate roads. • Rehabilitation of 200 km. link roads.
	<ul style="list-style-type: none"> • Electricity supply for all needy households. 	<ul style="list-style-type: none"> • Providing electricity to 56,250 households by 2010. • Supply of electricity to 61,875 households by 2015.
	<ul style="list-style-type: none"> • Improved communication facilities in the estate sector. 	<ul style="list-style-type: none"> • Provision of telephone through CDMA technology. • Upgrading the agency post offices as sub-post offices. • Establishment of 316 new sub-post offices.
(f) Community Development	<ul style="list-style-type: none"> • Plantation community is empowered enabling it to become full involved in the National Development process. 	<ul style="list-style-type: none"> • Forming and strengthening of CBOs, EWHCs. • Capacity building of CBOs and EWHCs. • Establishment of community centres.
	<ul style="list-style-type: none"> • Well equipped sports complex and cultural centres. 	<ul style="list-style-type: none"> • Upgrading the Norwood ground and pavilion to international standard. • Removing shortcomings in the cultural centres and community development centres.
	<ul style="list-style-type: none"> • Social security to old age and differently able people enhanced. 	<ul style="list-style-type: none"> • Establishment of vocational training centre for handicapped. • Conducting regular health clinics. • Exploring the self employment opportunities.
(g) Gender Equity and Human Rights	<ul style="list-style-type: none"> • Increased Women participation in all levels decision making. 	<ul style="list-style-type: none"> • Provision of trained counselors to handle plantation women issues. • Assessment of women participation.
	<ul style="list-style-type: none"> • Awareness creation and provision of more services through appropriate appointments. 	<ul style="list-style-type: none"> • Recruiting 2,500 youths who have passed the G.C.E (O/L) as Community Development Communication Assistants. • Recruiting Tamil police officers and other relevant Government officers.

Table 7.11: Public Investment for Plantation Worker Community Development (2007-2016)

Project	Rs. Mn.			
	2007-2009	2010-2012	2013-2016	2007-2016
Human Resources Development	7,284	4,937	6,583	18,804
• Education	5,800	3,625	4,830	14,255
• Vocational training	200	162	216	578
• Health	1,284	1,150	1,537	3,971
Housing and Basic Amenities	14,700	12,770	17,030	44,500
• Housing	13,200	11,485	15,314	40,000
• Water supply and sanitation	1,500	1,285	1,715	4,500
Infrastructure Development	7,922	5,612	7,318	20,852
• Road	6,778	4,252	5,536	16,566
• Electricity	819	1,000	1,300	3,119
• Communication	325	360	482	1,167
Community Development	2,743	1,070	1,627	5,440
• Sports	596	200	261	1,057
• Culture	113	50	50	213
• Social security	1,124	520	700	2,344
• Community development	910	300	616	1,826
Gender Equity & Human Right	200	95	109	404
Total	32,849	24,484	32,667	90,000

7.3.1 Situation

In terms of the Human Development Index compiled by the United Nations, Sri Lanka's level of human development is satisfactory in relation to her per capita income and the country has been ranked higher than all other countries in the South Asian Region. This is explained by the priority accorded to social welfare expenditure by successive government since independence. Even after introducing liberalization policy in the latter part of 1970s, the government has been allocating substantial amount of resources for implementation of safety net programmes, particularly cash grants under the Samurdhi programme. The other major subsidy programmes include free education, free health, subsidized public transport and assistance for vulnerable groups such as differently abled and conflict affected people.

The concept of social protection often misinterpreted and misused. Sometimes it is confined to safety nets, social welfare assistance or cash and food grants. It is necessary to adopt a holistic approach social protection and integrate all approaches with a view to change the role of the vulnerable groups from passive recipients to active contributors to development. Accordingly, henceforth, social protection has to be conceived as mechanism to reach the people who happen to be outside the mainstream of development and to provide protection which they are incapable of providing for themselves.

7.3.2 Strategy

The protection of the rights of the economically and socially disadvantaged groups and improvement of their living conditions will be given high priority with a view to ensuring their active participation in socio-economic activities. While providing public assistance for such groups to supplement their incomes, special education and skills training programmes will be introduced to make them active partners in the economic development.

7.3.2.1 Social Protection Framework

Social Protection Strategy Framework

Strategic Focus	Welfare Assistance	Safety Nets	Social Insurance	Labour Market Interventions	Disaster Relief
Effect	Protective / Coping	Coping	Mitigation / Prevention	Increasing opportunities	Mitigation
Instruments	Services, Cash	Cash, Food for work	Cash	Services, counseling,	Food, Shelter, Health Services
Targeted Group	Disabled, Destitute Elderly	Chronically poor, Women, Children	Elderly, Transitory poor	Unemployed, new entrants to labour market	Communities exposed to disasters
Programmes	Assistance to patients, disabled, elderly homes, vocational training	Samurdhi Cash Grants, Nutrition Programmes	Pensions, and other contributory pension schemes	information networks, Skill development training,	WFP, Disaster Relief Programmes
Trends	Expects a decrease in incidence of disability	Poverty levels expected to be come down	Aging population	Need more emphasis on the informal Sector	Decreasing risk of Natural Disasters due to EWS & networks in place
Indicators	Annual incidence of disability in work	Poverty Headcount Index 2002 - 23% 2015 - 12%	Over 60 Population 2001 - 10% 2020 - 22 %	Labour Force Rate of unemployment	No. of IDP s Target is eliminating long term displacement
Medium Term Expenditure Direction	Un-change or slightly decreasing	Decreasing	Increasing	Increasing	Assumed to be decreasing
Challenges	Creating environment for disabled to have a normal life	- Proper targeting and making exit and entry mechanisms effective	- Improving coverage, administration and financial sustainability, of exiting schemes - Providing security for informal sector.	- Promoting Industry - Academic partnerships -making working conditions of all jobs comfortable and attractive	Establish an unified system for disaster relief with intra-agency coordination

Target groups for welfare assistance:

- **Differently abled:** Differently abled persons will be considered as those who suffer from a mental or physical disability that places them in a disadvantaged position, socially and /or economically. The Government do not consider these people as a burden to society. On the contrary their latent abilities will be put into good use for the welfare of the society and themselves. Therefore, they will be provided with shelters and vocational skills.
- **Children:** As far as children are concerned, key policy objective of the Government is to provide care and protection for the children in vulnerable situations and to ensure that all children have unfettered opportunities to advance to their fullest potential as human beings and as citizen of Sri Lanka. Destitute children will be given adequate protection through improvement of safe homes with required facilities in order to create a conducive environment which will require for healthy growth both physically and mentally. Measures will also be taken to ensure their access to education, health and other services.
- **Senior Citizens:** With regard to senior citizens, the policy objective of the Government is to ensure better living environment and quality life for these citizens. The rights of senior citizens to safety, access to services, and to lead dignified, active and fulfilled lives not being overly dependent on the other people or the state will be duly recognized and promoted. The historical and traditional roles that senior citizens have played in our society will provide dynamic examples for us in establishing a society that care about and gives due recognition to senior citizens. The priority strategies for protection and advancement of the rights and welfare of senior citizens emphasize independence, care, self-fulfillment and dignity.
- **Destitute Women:** The primary policy objective of the Government with regard to the issue of women’s empowerment is to promote gender equality through a discrimination-free society. Considering the fact that women should have equal rights with men in the society, all avenues will be opened for them to engage in gainful economic activities and earn additional incomes. At the same time, steps will be taken to get their active participation in decision making, planning, plan implementation and other administrative as well as political functions at every level. Policies and strategies are driven by the recognition of the simple truth that unless women are empowered, society as a whole cannot be empowered.

Table 7.12: Social Protection: Objectives and Sub-Programmes

Priority Areas	Targets	Programmes
(a) Relief for all deserving families, and for persons living with Samurdhi families.	<ul style="list-style-type: none"> • Full coverage of all eligible families. • Full coverage of aged and disabled under Samurdhi families. • Reduction of child related problems - such as hunger, malnutrition among Samurdhi families. • Improved education achievement among Samurdhi families. • Assistance to poor families to have social events. 	<ul style="list-style-type: none"> • Eligibility assessment and expansion of programme to eligible families. • Aged and disabled Samurdhi family members’ allowance (Rs. 3,000). • Increase the child birth payment up to Rs. 5,000. • Increasing the scholarship allowance of the children of Samurdhi families by 50%. • Increasing the payment in the event of a death from Rs. 5,000 to Rs. 10,000.
(b) Differently Abled Persons	<ul style="list-style-type: none"> • Educational facilities to all differently abled children without any discrimination. 	<ul style="list-style-type: none"> • Enrollment of differently abled children to popular schools. • Deviating from the present practice of maintaining separate schools for differently abled children.

Priority Areas	Targets	Programmes
<p>6a Shelter and vocational training for physically disabled persons.</p> <ul style="list-style-type: none"> Financial assistance to disabled persons who have no income. 	<ul style="list-style-type: none"> Better living standards for physically disabled persons. Reduced financial burden of the poor families who look after disabled persons. 	<ul style="list-style-type: none"> Establishment of Rakawarana Niwasa homes to provide vocational skills for physically disabled persons. Providing houses for disabled soldiers. Providing monthly grant of Rs. 3,000 for a family who has differently abled persons. Providing funds from President's Fund for big operation of disabled persons.
<ul style="list-style-type: none"> Employment opportunities to differently abled persons. Convenient life for differently abled persons. Social equity. 	<ul style="list-style-type: none"> Good income avenues to differently abled persons. Public office buildings with convenient access facilities for differently abled persons. Secured equal rights of differently abled persons. 	<ul style="list-style-type: none"> Reservation of at least 3% of employment opportunities in the establishments with over 100 employees. Reservation of at least 3% of employment opportunities in the establishments with over 100 employees. Providing convenient access facilities in public buildings to differently abled persons. Enacting legislation to protect the rights of the differently abled persons.
<p>(a) Protection and Advancement of Children in Vulnerable Situations</p> <ul style="list-style-type: none"> Improving health and nutrition status of children. Safe homes for orphans. Quality pre-school education 	<ul style="list-style-type: none"> Reduced malnutrition and hunger among the children. Well managed children's homes. Well equipped pre-school system on par with international standards. 	<ul style="list-style-type: none"> Provide monthly allowance of Rs. 200 to purchase milk for every child from birth up to 5 years of age. Improvement of the management of all children's homes and double the monthly amount paid to the account of each child. Providing training, technology and financial assistance for pre-schools and day-care centres. Introduce new educational methods to achieve international standards.
<p>(b) Promotion of Rights and Welfare of Senior citizens</p>	<ul style="list-style-type: none"> Improved living standard of senior citizens. Benefits to farmers, fishermen, the wheelers, small businessmen, and those who do not receive pension or EPF benefits. 	<ul style="list-style-type: none"> Homes for aged with the assistance of NGO's and private sector. Increasing the pensions in line with the public servants salary increases. Rectification of the anomalies in present pension payments. Provision of spectacles for senior citizens with free of charge. Once a year a free railway warrant for senior citizens to go on pilgrimage. Improve social security and social integration. A deduction of 50% of the fares as levied by public sector transport operators to senior citizens. Establishment of a National Pension Scheme for self employed.

(c) Empowerment of

Priority Areas	Targets	Programmes
(e) Empowerment of Women	<ul style="list-style-type: none"> Socially and economically empowered women. 	<ul style="list-style-type: none"> Diriya Kantha Programme – A Self employment scheme for women. Financial assistance for women through Lanka Puthra Bank to start income-generating project. Assistance for women who are in torture/depression. Legal reforms aimed at equal status for women and men. Achievement of 25% women members' participation in Provincial Councils and Local Government.

Table 7.13: Government Intervention on Social Protection (2007-2016) Rs. Mn.

Projects	2007-2009	2010-2012	2013-2016	2007-2016
Samurdhi Cash Grants	36,600	34,222	33,479	104,301
Caring Children and Women	6,723	5,200	6,840	18,763
Assistance for Differently Abled/Elders	20,917	23,683	35,376	79,976
Payment of Pensions	207,000	244,000	366,000	817,000
Total	271,240	307,105	441,695	1,020,040

7.4 Disaster Mitigation and Risk Management

7.4.1 Vision

The long-term vision of the Government is to ensure safer country with low risk of natural disasters through implementation of effective early warning systems, making the people aware of possible natural disasters and timely dissemination of relevant information to the public.

7.4.2 Key Objective

The key policy objective of the Government is to mitigate and minimize the impact and damage of drought, floods, landslides and other natural disasters. In this regard, it is the intention of the Government to develop and implement a comprehensive framework which will identify and coordinate the multiple stakeholder efforts to meet this objective during the next ten years through a holistic strategy.

7.4.3 Strategy

For a long time, disasters seem to have been perceived as isolated events which needed to be responded with 'emergency relief' as the standard norm. It is now recognized that disaster management is more effective if it is preceded by preparedness and the relief is followed by rehabilitation and reconstruction.

The overall strategy can be divided into two main interrelated prongs:

- Pre-disaster risk reduction – through mitigation and preparedness; and
- Post-disaster recovery – through relief, rehabilitation and reconstruction

The Road Map for implementing the strategy will be developed and implemented through the interactive identification of priority policies, programmes and projects across different areas of action. Its key features will include:

- Complementing ongoing policy and legislative efforts with risk identification and reduction strategies;
- Strengthening national, regional and local level institutions while paying due attention to Community-Based Disaster management;
- Considering the different nature of hazard risks and vulnerabilities across the country;
- Strengthening of national, regional and local governance structures; and emphasizing national and community-based environment and natural resource management for long-term risk reduction.

**Table 7.14: Disaster Mitigation and Risk Management:
Strategic Priorities, Key Targets and Programmes**

Strategic Priorities	Key Targets	Programmes
<p>(a) Development of Disaster Management Policy, Institutional Mandates and Capacities</p> <ul style="list-style-type: none"> • Preparation of national disaster management plan. • National Disaster Management Policy. • National emergency response plan 	<ul style="list-style-type: none"> • Comprehensive National Policy on Disaster Mitigation and Risk Management. • Preparation of a National DMRM Plan. • Clearly defined institutional mandates for line agencies, PCs and LAs. • Effective enforcement of Ordinances, Acts and Regulations. 	<ul style="list-style-type: none"> • Implementation of provisions of Disaster Management (DM) Act various levels. • Review of institutional mandates of line agencies in performing the disaster related activities. • Review the existing institutional mandates of line agencies, PCs and LAs and introduction of new mandates suited to present day needs. • Establishment of National Disaster Management Centre and National Emergency Operations Centres.
<p>(b) Hazard, Vulnerability and Risk Assessment</p> <ul style="list-style-type: none"> • Study of past hazards and responses. • Simulation modeling of hazards and incorporation of the results in planning. • Landslide Hazard Zonation Mapping for Landslide prone areas. • Flood simulation model for major river basins. • Study on droughts. • Risk aversion on possible natural disasters. 	<ul style="list-style-type: none"> • Updated landslide hazard zonation maps for major prone areas. • GIS based risk information system established at DMC. • Availability of maps for vulnerable areas. • Flood hazard maps for major river basins. • Micro-climatic maps and drought vulnerability maps. • Preparation of Vulnerability Atlas. 	<ul style="list-style-type: none"> • Land hazard Zonation Mapping • Establishment of Disaster Risk Management Information System at Disaster Management Centre. • Expansion of landslide mapping programme. • Flood risk assessment and implementation of flood control programmes. • Development of drought prone area maps of LAs. • Use of Vulnerability Atlas in developing programmes.
<p>(c) Establishment of Tsunami and Multi-Hazards Warning System</p> <ul style="list-style-type: none"> • International collaboration network. • Advance warning information system for floods, cyclones, abnormal rainfall, droughts, landslides, etc. 	<ul style="list-style-type: none"> • Proper meteorological warning system. • Real time forecasting system for flood hazard mitigation. • Functional cyclone tracking and EWS. 	<ul style="list-style-type: none"> • Establishment of National Early Warning Centre and improvement of meteorological observation and prediction capabilities. • Improvement of Hydrometric Network for enhancing flood monitoring and forecast capabilities. • Development of effective Cyclone Tracking, Storm Surge Warning System.

EW and monitoring system

Improved Landslide Prediction

Strategic Priorities	Key Targets	Programmes
<p>(a) Public Awareness, Education and Training</p> <ul style="list-style-type: none"> National Disaster Awareness Campaigns. Promotion of disaster awareness among professionals and universities through training and other activities. 	<ul style="list-style-type: none"> Holding DRM training programmes for general public and school children. DRM training and development activities by the DMC. 	<ul style="list-style-type: none"> Declaration of National Safety Day and conducting awareness programmes. Awareness through University Curriculum and Continuing Education. Training for Government Employees.

Note : This is a summary based on the Road Map for Disaster Risk Management - 2006.

Table 7.15: Investments in Disaster Mitigation (2007-2016)

Projects	Rs. Mn.			
	2007-2009	2010-2012	2013-2016	2007-2016
Emergency Response Network	2,800	-	-	2,800
Development of Disaster Management Policy and Institutional Mandates and Institutional Capacities	509	80	30	619
Hazard, Vulnerability and Risk Assessment	2,061	634	400	3,095
Integration of Mitigation and Disaster Risk Reduction into Development Planning	4,236	5,214	4,560	14,010
Establishment of Tsunami Multi Hazards Warning System	1,096	681	93	1,870
Community Based Disaster Risk Management	3,032	2,565	1,860	7,457
Preparedness & Response Plan	18,661	7,808	6,410	32,879
Public Awareness, Education and Training	747	112	105	964
Total	33,142	17,094	13,458	63,694

8. Education

8.1 Enhancing Equity, Quality, Efficiency, and Effectiveness

The Education sector has three sub-sectors: General Education, Technical and Vocational Education and Higher Education. These have been developed to meet needs of the people for knowledge, skills and the attitudinal and value base that determines their behaviour almost through their life cycle. At the present juncture, the major key issues that need to be addressed in each sector are Equity, Quality, Efficiency and Effectiveness.

8.1.1. General Education

The largest- sub sector is primary and secondary Education. In the context of the farsighted policies introduced, particularly free education, Sri Lanka has extended educational opportunities to a large segment of the population.

Selected Indicators of the General Education System in Sri Lanka	
1. Schools	Island-wide Network of 9727 schools of which 96 % are co-educational
2. State Supported schools	97%
3. Total Number of Students	3.9 Mn; Girls 50%, Boys 50%
4. Total Number of Teachers	187,339 ; Men 31%, Women 69%
5. Schools providing science education	25%
6. Schools with libraries	60%
7. Schools Teaching IT	Only a few schools have basic facilities.
8. Teachers professionally qualified	95%
9. Primary enrollment (5 to 10 Years)	96%; Boys 94.7%, Girls 96.5%
10. Junior Secondary enrollment (11 to 14 Y)	95%; Boys 93.5%, Girls 96.4%
11. Retention at the end of Primary (Gr 5)	98%
12. Retention at the end of Junior Sec. (Gr 10)	Boys:82%, Girls: 87%
13. Drop-outs at the end of Gr 11	50%
14. Passes at GCE (O- Level)	47%

Non schooling is not pervasive in Sri Lanka and is confined to severely economically disadvantaged locations and to vulnerable groups. A key issue is to bring the out-of-school children in the compulsory education group into schools or non-formal centres and to increase participation at senior secondary level which is the avenue to higher education.

Despite the past efforts, the quality of education in terms of infrastructure, distribution of teaching resources and the learning-teaching process in the classroom is reflected in the low mastery levels in first language and mathematics in primary grades and in a low pass rate at the G.C.E/ Ordinary level examination in Grade 11. Both activity based learning and teaching and personality development as well as technical subjects in the grades 10-11 curriculum have received low priority in schools. Science education in grades 12-13 is confined to 6% of schools with these grades and Information Technology is still in the initial stages of development in schools. The management of the education system – delivery of services, supervision, administration and monitoring- has been reported to be weak at local level underscoring the need for capacity building educational personnel at all levels and the adoption of effective monitoring mechanisms.

Among the Key Issues to be addressed in general education are:

- Lack of a policy on a coordinated system of schools
- The need to improve achievement levels in the first language and mathematics.

- 17% of students who enroll do not complete compulsory education (5-14 years) who need to be either brought back into schools or enrolled in non-formal centres
- Need to increase participation at senior secondary school level
- The need to increase the success rate at the O Level Examination.
- Giving higher priority to activity-based learning and teaching, technical subjects and personality development in grades 10-11
- Science education being limited to 25.6 per cent of schools with grades 12-13
- Little progress made in introducing Information Technology to schools
- Difficulties faced by secondary school leavers to fit into the world of work
- Need for modernization and diversification of curricula at school levels
- Issues of governance – delegation and devolution to provinces and gradually to school level
- Lack of an efficient delivery of services, and an effective monitoring and supervision mechanism
- Capacity building of educational personnel
- Clarity with regard to functions among National Education Commission (NEC), National Institute of Education (NIE), Ministry of Education (MOE) and Provincial Ministries.

8.1.2 Technical and Vocational Education

Among the key issues to be addressed in technical and vocational education are:

- Lack of focus on knowledge, skills and attitudes to perform a particular occupation in a rapidly changing technical environment
- Absence of mechanisms to ensure the quality of trainee output against set standards
- Absence of a trustworthy qualification that reflects the level of competency of the trainee against a publicly known standard
- Internal and external inefficiencies including duplication of courses, outdated curricula and equipment, shortage of good trainers as well as in-optimal utilization of workshops, laboratories and training equipment, leading to a high drop out rate of around 30 per cent
- Lower social acceptance of technical and vocational education and training and hence the inability to attract students to training courses
- Gender imbalances in enrolment
- Need for the diversification of providers and creation of an enabling environment for the private sector investment
- Inadequate coordination and linkages among public, private and non-governmental stakeholders
- Lack of sufficient awareness of the available opportunities,
- Need for sustainability through cost recovery and other means, and
- Inadequate linkages between technical and vocational education and general education, on the one hand, and university education, on the other.

8.1.3 Higher Education

Among the Key Issues to be addressed in higher education are:

- Absence of a consistent overall policy for higher education, on such issues as, admissions, medium of instruction and location of universities
- Rational expansion of intake capacity, to accommodate the large numbers who qualify for university admission
- Improving quality and relevance to meet local needs and international standards related to issues of curricula, university-industry linkages and employability of graduates

- Paucity of research and opportunities for postgraduate education
- Issues of autonomy, resource mobilization and capability building of all categories of staff
- Opening higher education institutions to private sector participation
- Re-defining the role of the state regarding accreditation mechanisms, financing and institutional strengthening
- Frequent disruption to university activities due to confrontational behaviour of students and employees

8.2 Education – Overall Goals

Under the present plan, Sri Lanka's education system will be transformed into one that will provide the technological skills required for rapid economic growth and national development. Educational content and methods will be designed to promote the development of inquiring and adaptable minds. In a broader sense, education will also aim at promoting knowledge, values and attitudes needed by individuals to live in peace and harmony with other members of the society while raising the general intellectual and cultural level of the people.

8.3 General Education - Policy Framework and Strategies

Educational policies in Sri Lanka will be shaped according to thinking embodied in the *Mahinda Chintana*. Accordingly, the right to free education for all children will be protected while widest possible opportunities will be provided to every person to acquire a quality education at higher and vocational levels according to his / her ability and preference. Due priority will be accorded to teaching of languages so that students will become proficient in both national languages and English. Action will also be taken to make computer related skills accessible to all.

Flowing from the issues identified and policy guidelines set out above, the educational policy needs to focus on the themes of equity, quality, efficiency and effectiveness at every level. It should be innovative and responsive to the needs of social, economic, political and cultural development blending national and global demands and be transformative in nature.

Educational policy should also focus in bridging gaps among the above four areas, facilitating transfer from general education to technical and vocational education and higher education, and from technical and vocational education to higher education. In Sections 3.1 to 3.3 the policy framework and strategies for each level are presented.

8.3.1 Promoting equitable opportunities in access, participation, achievement and outcomes in basic and secondary education

Policies have been introduced since the 1940s to extend educational opportunity to all segments of the population – free primary, secondary and tertiary education in state supported schools, provision of scholarships at Grade 5 and, to a limited extent, at Grade 12, free textbooks (Grades 1-11), materials for a school uniform, mid day meal for needy students and subsidized transport. These policies need to be continued to prevent reversal of the gains that have been achieved. Strategies related to the above policy are given below-

- (i) Initiatives to promote enrolment - Implement compulsory education regulations at primary level by 2010 through activating School Attendance Committees, Awareness raising of the public on the same.
 - Ensure 100 % participation by reducing the number of out-of-school children, by introducing special measures to provide education to children who come from disadvantaged backgrounds such as low-income urban neighbourhoods, remote rural villages, plantations,

areas affected by the ethnic conflict in North and East and by natural disasters and those in vulnerable groups- working children, street children, destitute and abandoned children.

- Extend compulsory education regulations to 5-16 from 2010.
 - Continue free education scheme to all and provide welfare measures such as free school textbooks, school uniforms, school meals, free transport facilities, bursaries etc. to the needy.
 - Improve education for children with special educational needs.
- (ii) Establish a viable network of schools at each divisional level by creating or re-structuring or networking of existing schools, through :
- (a) Creating high quality child-friendly primary schools for children drawn from a catchment area of 3 km., to be organized as feeder schools to secondary schools within a 5 km. distance, during the first phase of the Plan
 - (b) Developing each year a specified number of quality secondary schools in each division
 - (c) Developing high quality secondary schools in the 100 poorest divisions by 2016.
 - (d) Developing schools with less than 100 students in economically and socially deprived and remote communities
 - (e) Extending opportunities for science education, especially in rural areas
- (iii) Identify out-of-school children and adolescents, including street children, through an island-wide survey and strengthen non-formal education, by extending the network of literacy centres and community learning centres in areas of concentration of non-schooling children
- (iv) Promote open learning and a variety of multi-media in the process of learning.

8.3.2 Improving quality of basic and secondary education

Policy strategies to improve education facilities and the learning environment and curriculum revision appear to have been confined largely to primary schools which have benefited also from the concept of “child-friendly” schools. The lacunae are chiefly in the implementation of policies. According to the assessment of the Ministry of Education, in 2004, 54 per cent of the country’s schools are classified as non-congenial, difficult and very difficult schools in terms of resources with implications for the quality of education in these schools. These include the “small schools” that meet the needs of small and remote communities. The curriculum continues to promote rote learning rather than an activity-based learning-teaching process that will nurture the personality attributes that are necessary for effective working and living. Textbook reform and re-orientation of teacher development to transform teaching methodologies have a long road ahead. The curriculum has yet to incorporate elements that will promote human rights, national harmony and gender equality. Despite the provision of over a thousand computer learning centres in schools, the urban-rural and gender digital divide is wide. School based assessment has been introduced as a part of the examination system but needs to be evaluated. While the “mismatch” between the education and the labour market is chiefly a consequence of low economic growth over decades, the school curriculum has not been used to develop the generic skills required. In productive employment while the technical subjects in the GCE (O.L) grades are under resourced.

Strategies to implement the above policy are listed below-

- (i) Strengthen and modernize primary and secondary education curricula with systematic links between different levels
 - Review and extend curricular reforms and develop appropriate teaching-learning materials
- (i) to promote a child friendly primary school, (ii) develop an activity-based curriculum in

secondary schools to be assessed under School Based Assessment, (iii) develop generic skills such as initiative, problem-solving, team work, responsibility, (iv) promote human rights, national harmony and gender equality

- Enhance teaching-learning process and develop school-based and external supervision
 - Publish criterion-referenced student learning competencies at primary and secondary levels and disseminate to schools and ensure that a planned learning process which promotes acquisition of higher order competencies takes place
 - Incorporate Information Technology in the core curriculum in senior secondary grades and activity rooms in junior schools
 - Expand opportunities for learning English at primary and secondary level in all schools, use of activity-based Oral English and English medium in schools, strengthen English support centres and Regional Educational Support Centres (RESCs) and facilities at Peradeniya English Teachers' College
 - Promote national harmony through education (i) by organizing selected schools in multi-ethnic communities to provide education in the Sinhala and Tamil media, (ii) introducing conversational Sinhala for Tamil students and conversational Tamil for Sinhala students
 - Revamp the system of preparing textbooks to ensure high quality books in all three languages
 - Develop support systems and models that facilitate curriculum
 - implementation - professional development for In Service Advisers, subject directors
 - Introduce examination reforms to promote higher order cognitive skills
 - Promote through the curriculum a diversity of skills that will enable students to make informed choices in selecting options in higher education, in technical and higher education and in employment and
 - Provide career guidance in secondary schools and work towards eliminating stereotypes of gender-appropriate occupations
- (iii) Establish a comprehensive teacher development framework,
- Plan and implement a teacher development programme to enable teachers to meet the demand for curricular reforms, to transform the teaching-learning process, and to function as change agents in promoting attitudinal change

8.3.3 Strengthening governance, efficiency and service delivery in education

- Develop and implement an educational sector plan through a bottom up and top down and sector-wide planning approach
- Implement a Public Expenditure and Quality Education Tracking System
- Strengthen governance in schools through the Programme for School Improvement Identifying Zones for implementation for each year
- Develop a capacity building programme for educational personnel
- Enforce a Performance Appraisal Scheme for all educational personnel
- Strengthen the Quality Assurance Unit to oversee all schools by 2016

8.3.4 Targets: General Education

1. Access

Target object	Age Group	2009	2013	2016
1. Enrollment %	5-10 Years	98	100	100
	11-14 Years	96	100	100
	15-16 Years	85	90	95
	17-19 Years	60	65	70
2. Retention %	Grade 5	99	100	100
	Grade 9	90	95	100
	Grade 10	85	90	95
	Grade 12	60	65	70
3. Upgrading Quality of school in Division (%)	Primary	30	70	100
	Secondary	20	60	100
	Isuru	35	70	100
4. Provision of Science Education in Grade 12 – 13 (%)	Secondary	20	50	70

2. Quality

Curriculum reforms to be implemented by 2009

- Activity based
- Personality development
- Values
- Human rights
 - National harmony
 - Gender equality

Target object	2009	2013	2016
1. Mastery Levels > 80%			
Grade 5: First language %	45	54	60
Mathematics %	45	54	60
2. Mastery Levels > 50%			
Grade 5 First language %	70	85	100
Mathematics %	70	85	100
3. GCE/OL Qualified for AL class	50	55	65
4. GCE/AL Qualified for selection to universities %	65	75	85
5. Computer Learning Centres in Secondary Schools %	45	75	100
7. Teacher Development Programme		Completed	
8. Counseling and Career guidance units In schools %	30	60	100
9. Quality assurance programme to cover %	30	60	100
10. Programme for school improvement Zones %	75	100	

8.3.5 Investment Plan – General Education – 2007 to 2016

Theme 1. Promoting Equitable Access to Basic and Secondary Education

Key Development Operation	Institutions	2007-2009 Rs.mn	2010-2012 Rs.mn	2013-2016 Rs.mn
1.1 Ensure free education policy, provide equal educational opportunities and increase enrolment & retention rates of the basic compulsory education	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	22681	28262	32460
1.2 Expanding the Network of Secondary schools to relax constraints on geographically equitable access to good quality secondary education.	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	21706	22631	26760
1.3. Development of special programmes for children with special needs	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	439	533	760
1.4 Development of Non Formal Education (NPE) programmes for out of school children and adolescents	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	1689	2771	3511
Sub Total		46515	54197	63431

Theme 2. Improving the Quality of Primary and Secondary Education

Key Development Operation	Institutions	2007-2009 Rs.mn	2010-2012 Rs.mn	2013-2016 Rs.mn
2.1(a) Curricula reforms at primary (grades 1-5) and post primary (grades 6-9, 10-11, 12-13) levels. (b). Facilitate implementation of curricula policies and maintain standards	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	32955	33457	34569
2.2 Establishment of a teacher development framework which would include school based on site teacher development systems.	MOE/ NIE CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	5292	5679	5875
2.3. Examination reforms to promote acquisition of higher order transferable skills	DoE/ /NCP/NEP/NWP/ SP/ SabP/UP/WP	1992	2561	2740
2.4 Production and timely delivery of text books	EDP	1595	1600	1790
2.5 Promoting social cohesion, values, ethics, and civic consciousness in schools	MOE/ NIE CP/NCP/NEP/NWP/S P/ SabP/UP/WP	143	220	250
Sub Total		41977	43517	45224

Theme 3: Enhancing the Economic Efficiency and Equity of Resource Allocation

Key Development Operation	Institutions	2007-2009 Rs.mn	2010-2012 Rs.mn	2013-2016 Rs.mn
3.1 Development of an overarching education sector development plan	MOE/ NIE CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	294	246	300
3.2 The medium term budgetary framework (MTBF) for Education	MoE	1.5	0.86	1.00
3.3 Public expenditure and quality of education tracking system (PEQETS)	MoE	1.15	8.1	8.5
Sub Total		296	255	309.5

Theme 4: Strengthening Education Governance and Service

Key Development Operation	Institutions	2007-2009 Rs.mn	2010-2012 Rs.mn	2013-2016 Rs.mn
4.1 School improvement programme (SIP)	MOE/ CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	126	36	48
4.2 Production and implementation of a human resource development strategy for the education system	MOE/ NIE/DoE CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	94	6	8
4.3 Organization analysis and capacity buildings	MOE/ NIE/DoE CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	543	540	720
Sub Total		763	582	776

Theme 5: Result Based Monitoring

Key Development Operation	Institutions	2007-2009 Rs.mn	2010- 2012 Rs.mn	2013- 2016 Rs.mn
5.1 Result –based monitoring and evaluation	MOE/ NIE/DoE CP/NCP/NEP/NWP/ SP/ SabP/UP/WP	145	156	208
Sub Total		145	156	208

8.4 Technical & Vocational Education – Policy Framework

Technical and Vocational Education sub-sector proposes to achieve a theme of “Skills for Life – Jobs for Skills” providing nationally and internationally recognized training in keeping with advancing technology meeting the demand of labour markets both domestic and abroad. For this, a new network of Vocational Training Institutes (100) and Community Schools are to be set up which will facilitate an increase from 90,000 to 200,000 by 2016. The following initiatives are on-going.

(i) Improving the quality and relevance of programmes

To meet the criticism of the quality and the disparity of the standards of programmes,

- National Skills Standards based on competencies identified for specific occupations and a scheme of competency based assessment have been introduced
- A unified certification system has been developed through the seven levels of the new National Vocational Qualifications, and programmes in the existing state institutions such as Technical Colleges, Vocational Training Authority, National Apprenticeship and Industrial Training Authority, National Youth Services Council, have been incorporated in Levels 1-4
- The registration of all vocational training institutions, accreditation of their courses and quality auditing by the Tertiary and Vocational Education Commission have commenced
- Labour market linkages through job placement and support for entrepreneurship have been initiated

The distribution of physical and human resources is still not equitable and lack of qualified staff affects the implementation of policies.

(ii) Increasing enrolment in technical and vocational institutions from secondary schools and the workforce

As the total enrolment in state institutions is around 75,000 and 90,000 which is around one third of the number of secondary school leavers without access to university and other avenues of tertiary education, efforts are being made to improve the social image of the sub sector and to provide opportunities for the participation of the private and informal sectors, women and those with disabilities. There is a

high failure rate and drop out rate as a consequence of poverty or the poor quality of programmes while lack of resources prevents rapid expansion.

(iii) Improving the operational and managerial efficiency of technical and vocational education institutions

Recruitment and retention of quality staff, opportunities for staff development, links with local and foreign institutions and the introduction of a quality management system have been proposed to improve efficiency in the operation and management of programmes.

The following strategies have been proposed for the future to achieve policy targets.

(i) Improving quality and opportunities for upward career path

- Extend the scheme of National Skills Standards and competency based assessment to all occupations
- Establish nine Colleges of Technology, one in each Province, to prepare students for levels 5 and 6 of the National Vocational Qualifications
- Establish a National Institute of Advanced Applied Technology as a preliminary step towards establishing a University of Vocational Technology (Univotec)
- Establishment of a Qualification Framework - seven qualifications levels; National skills standards; competency-based assessment; quality management systems

(ii) Ensuring uniformity in national standards

- Complete the registration of all vocational training institutions and the accreditation of their course
- Implement a scheme of auditing quality in all institutions

(iii) Promoting the relevance of courses

- Provide career guidance to students and young adults
- Establish linkages with industry and employers to increase the employment opportunities of the output of these institutions
- Extend the scheme of job placement and entrepreneurship training and support for self employment.
- Incorporate environmental education in the curriculum

(iv) Increasing enrolment in technical and vocational institutions

- Increase the number of centres for institutional and apprenticeship based training, particularly in rural areas
- Encourage the private sector to conduct technical and vocational training programmes and provide financial support where necessary
- Recognise the skills of craftsmen in the informal sector through the NVQc and national skills standards
- Introduce special programmes to enable those with disabilities to enroll in programmes
- Reduce gender imbalances in enrolment by motivating women to enroll in technical courses
- Increase the social acceptance of technical and vocational education through awareness programmes, dissemination of advocacy materials and exhibits.
- Reduce the failure and high drop-out rate by providing quality staff and adequate facilities to these institutions.

(v) Improving operational and managerial efficiency

- Continue the resource and course rationalization programmes
- Increase opportunities for staff development locally, and overseas by linking with foreign institutions
- Organize job fairs and support district level entrepreneurship associations
- Develop mechanisms for ensuring effective management and monitoring

(vi) Targets – Technical and Vocational Education

ITEM	2009	2013	2016	
No. of Institutions				
TVEC	01	01	01	
VTA	375	575	875	
NAITA	54	68	71	
NIBM	04	04	04	
Colleges of Technology	07	09	09	
University	01	01	01	
Technical Colleges	41	43	45	
TOTAL	483	701	1006	
Enrolment				
VTA				
NAITA	32,000	25,000	75,000	
NIBM	22,000	29,000	32,000	
Colleges of Technology	3,700	5,300	6,500	
University	19,500	21,500	25,000	
	160	600	1,000	
TOTAL	77,360	1,11,400	1,39,500	
Job Placement				
NAITA	43%	46%	53%	
NIBM	97%	97%	97%	
Colleges of Technology and Technical Colleges	80%	80%	80%	
University	90%	95%	98%	
No. of occupations with National Skills Standards	65	80	95	
No. of Vocational Centres Registered with TVEC	1670	2120	2600	
No of courses accredited by TVEC	200	400	600	
No. of institutions in the Quality Audit scheme	520	1000	1500	
No. of institutions with career guidance programmes				
	VTA	1200	2000	3000
	NAITA	406	425	435
	DTET	52	60	70
TOTAL	1658	2485	3505	
No. of Nipunatha Loans for self employment				
	VTA	300	700	1000
	NAITA	17	21	25
	DT ET	78	90	100
TOTAL	395	811	1125	
No. of staff trained locally or overseas				
	VTA	75	250	500
	NAITA	30	30	30
	DTET	45	55	65
	NITESL	10	20	30
TOTAL	160	355	625	
GRAND TOTAL	2023	2703	3313	

Vocational and Technical Education - Investment Plan 2007-2016

Key Objectives	Strategies Projects	2007-2009 Rs.mn	2010-2012 Rs.mn	2013-2016 Rs.mn
1. Establishment of a qualification frame work in par with internationally recognized systems	<ul style="list-style-type: none"> ➤ National Vocational Qualifications frame work with 7 qualifications levels ➤ Development and Implementing National Skill Standards ➤ Conduct Competency Based assessment ➤ Quality Management Systems 	1763	1800	1900
2. Improvement of relevance and quality of courses	<ul style="list-style-type: none"> ➤ Implementing Skills Standards ➤ Enforcing Quality Assurance ➤ Conduct Registration of training centers ➤ Conduct Course Accreditation ➤ Auditing of Quality management systems ➤ Conducting Research ➤ Address Environmental Aspects 	23	33	14
3. Establishment of pathways for upgrading of qualification	<ul style="list-style-type: none"> ➤ Overall structure of implementation ➤ Conduct courses in NVQ level from 1 to 4 at Technical Education and Vocational institute ➤ Conduct courses in NVQ level 5 & 6 at Colleges of Technology ➤ Conduct courses in NVQ level 7 at University of Vocational Technology 	1162	600	2800
4. Improvement of operational and Management efficiency of TVET	<ul style="list-style-type: none"> ➤ Introduce Rationalization Mechanisms ➤ Conduct Staff Training ➤ Keep linkages with local & Foreign Institutions ➤ Keep Linkages with industry ➤ Create better learning environment 	1605	1405	2710
5. Increase enrollment capacity of TVET institutions	<ul style="list-style-type: none"> ➤ Provision of TVET by Modes of Institution Based Training (IBT) & Apprenticeship based training (ABT) ➤ Conduct Career Guidance & Counseling for Students, Parents & Teachers ➤ Conduct Awareness Programmes ➤ Establish new Vocational Training Centers 	1241	1500	1675
6. Equity of access to TVET for women, disadvantaged groups and disabled	<ul style="list-style-type: none"> ➤ Reduce the gap of unemployment rate between females & males ➤ Empower to the quality of employment of females ➤ Provide gender sensitive Vocational training and diversified training opportunities for women <p>Similar approach must be taken to cater the disabled groups</p>	2144	2500	2500

7. Promotion of self employment	<ul style="list-style-type: none"> ➤ Facilitation for self employment. Providing Entrepreneurship training ➤ Provisions of Loans for small business and enterprises ➤ Providing Tool kits 	95	85	175
8. Improvement of social image of TVET	<ul style="list-style-type: none"> ➤ Carrier Guidance ➤ Display Exhibitions ➤ Publications of LMIS Bulletin ➤ Conduct SeminarsPublications 	24	49	109
9. Encourage private sector to conduct Vocational Training programmes	<ul style="list-style-type: none"> ➤ Facilitate to Registration ➤ Facilitate to Accreditation ➤ Provision of Equipment ➤ Establish public-private partnerships 	24	49	109

8.5 Higher Education – Policy Framework

The state university system will remain in the long run as the predominant institutional system providing for university education. Degree granting institutions and non-state universities will operate, side-by-side, in collaboration with the state universities under the surveillance of state laws. Cross-border education providers will be required to operate under state regulations and standards.

While the state continues to be the main provider, multiple sources of funding for higher education will be encouraged. While all universities will be allocated resources and developed to reach the minimum standards required for accreditation, universities will be encouraged to specialize in priority areas of national development and thus become centers of excellence in the region.

In the context of socio-economic development, universities and higher educational institutions located outside metropolitan areas will be developed to expand access to higher education and mitigate the inequalities that exist between universities today. Continuing the state policy of having residential universities, hostel facilities will be expanded for all universities to be able to house at least 80 per cent of their main stream student populations.

While the autonomy and dignity of universities and their governance system are respected and ensured, resource allocation and utilization regimes will recognize the need to produce usable knowledge and in the process to conform to criteria of performance formulated by the state.

Several broad policies are identified in order to formulate strategies: (1) Increase access by enabling more choices in courses, modes of learning and alternate institutions within a regulatory framework, for all prospective students, (2) Enhance quality and upgrade standards with emphasis on employability and social harmony and to cope with national developmental needs and global competitiveness, (3) Foster a culture of scholarship and research, and (4) Ensure accountability, sound performance and financial sustainability.

Strategies

- As a measure of improving the relevance of education, the state may establish six or more specialized universities to give direct human resource support to the country's economic development efforts and the maintenance of peace and security in the region. The areas of specialization will be chosen after careful study and discussion and the areas under consideration include: management and entrepreneurship; bio-sciences and genetics; industrial technology; communication sciences; fisheries and marine sciences; defense and peace studies.
- Universities will be modernized by way of laboratory and experimental resource enhancement and attraction of experts in the disciplines to specialize education, research and consultancy capacity in chosen areas of national priority.

- All Universities will be networked having the University Grants Commission at the center, for the purpose of efficient administration of resources, providing instruction to students, services to clients/students and enhancing research collaboration.
- New degree programs will be introduced to meet the unmet economic demand for human resources and knowledge (such as banking and services, travel and hospitality, garment industry, gemming and jewelry, small business) while the universities are encouraged to reform their existing curricula to suit the changing employment opportunities and business needs.

Investment plan

The investment plan assumes an annual price inflation rate at moderate level over the ten year period. Capacity building is envisaged through expansion of existing universities and institutes, establishment of new specialized universities, and formation of community colleges. Along with physical expansion, there shall be expansion of technological capability, communication, experimental and research capacity, and more importantly, human resource development, particularly at higher/senior levels. With the support of the investment during this period, quality of education should improve dramatically and Sri Lankan universities, as envisioned in the ten-year plan, should become a preferred destination of choice for foreign students.

Measures	2007	2009	2011	2013	2016
# of Universities	17	22	23	24	24
# of Undergraduate Institutes	08	08	09	09	09
# of Postgraduate Institutes	08	10	12	13	13
# of Community Colleges	02	05	07	07	07
Academic staff (Professors)	6,950 (360)	8,800 (550)	10,150 (800)	10,500 (1,050)	11,000 (1,300)
Other Staff	12,220	13,700	15,200	15,900	16,700
Admissions:	17,500	21,500	25,300	28,000	30,000
Full – time local undergraduate E-learning, external & open modes	8,000	20,000	40,000	50,000	55,000
Foreign students	200	2,500	5,000	7,500	7,800
Postgraduate students	2,900	5,250	7,400	8,500	9,000
Graduate output:					
Undergraduate	13,000	21,000	32,000	44,000	75,000
Postgraduate	2,200	4,300	5,000	7,000	8,000
Undergraduate Employment rate	40%	60%	80%	85%	85%

Rs. Mn.

Capital expenditure	2007	2009	2011	2013	2016
Expansion of universities: Land and buildings	5,500	10,000	15,000	12,000	12,000
Technology Acquisition	500	3,800	4,900	5,000	5,500
Human Capital Development	420	1,800	1,800	2,000	2,000
Organizational Capital Development	400	1,000	1,000	1,500	1,600
Rehabilitation works	600	1,000	1,200	1,600	2,000
Recurrent expenditures					
Personal emoluments	8,000	14,000	18,000	20,000	21,000
Research and publications Curriculum and learning quality improvement	100	1,600	2,400	3,800	4,500
General overhead	1,900	2,500	3,000	3,500	4,500
University earnings	900	3,800	6,500	8,500	12,000

9. Health

During the last five decades, Sri Lanka has performed exceptionally well in improving the health status of the population. The achievements as reflected in the main health indicators are far ahead of the averages for countries at comparable levels of income. The Government of Sri Lanka recognizes the need to invest more in people to enhance economic and social progress providing each citizen an opportunities to realize his/her full potential.

The Ministry of Healthcare and Nutrition has developed a 10 year master plan to address the priority issues in this sector. It describes the policy and strategic framework for an innovative health system over the next decade. The Master Plan has taken due recognitions of the programmes stated in the Mahinda Chinthana and the Millennium Development Goals as priorities for the 10 year period 2007 to 2016. Thus ensuring easy access to quality and modern healthcare services for all with emphasis on needs of the lower income groups and those most vulnerable in society, will be the main focus of the health sector in the Medium-term 2007-2016. There has been a steady increase in the role of the private sector in the health sector specially in relation to tertiary care services while the government has been putting in place necessary safeguards to promote both equity and efficiency of these services. The government continues to be the key player in providing free health services to those who cannot pay.

Health as a critical component of economic development.....

Health is the basis for intellectual physical and spiritual growth and is essential for the economic and social development of the country. It is erroneous to assume that better health is a by product of economic development. The fact that ill-health reinforces poverty is less understood than the view that poverty causes ill-health. Disease burden slows the economic growth that is presumed to solve the health problems. It diminishes the return to business and infrastructure investment in addition to the effect of individual worker productivity. However, market often fails to allocate health services among people who are in need. In this context, investing in health is an important component of the overall development strategy of the government. Apart from direct investment the government plays a vital role in broadcasting the information network across the country so that awareness among in the remote areas is enhanced.

Equity in access to healthcare implies grater access for the low income household for whom medical need is typically grater than the middle and high income groups. Further more tackling inequalities helps to improve stagnating health indices. In this context, the Ministry of Health has made a commitment towards the policies of the Government that reflect the health concerns of vulnerable populations such as those in estates, remote rural areas, and conflict as well as disaster-affected areas. The Ministry of Health will be restructured to be more results oriented and responsive to people's needs. This will require additional resources, in terms of financial, manpower and physical infrastructure.

9.1 Overview of the Current Health Status

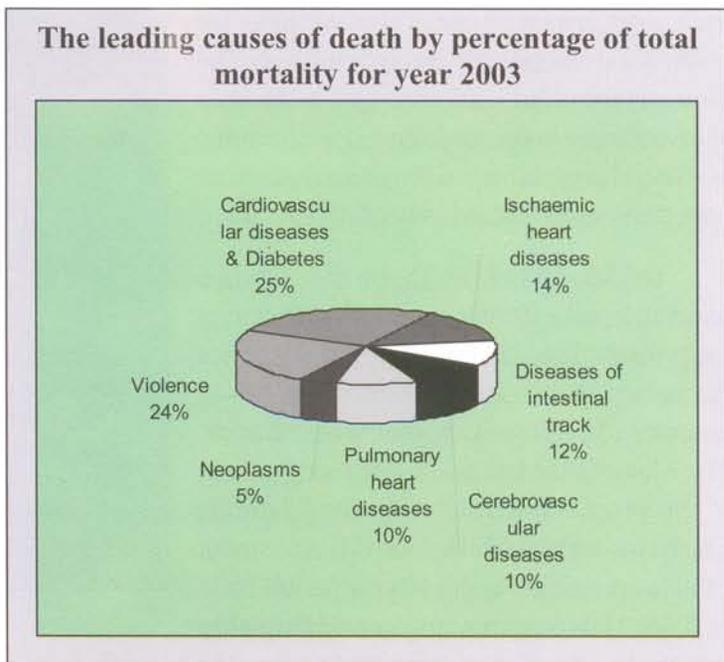
The country's health indicators show a steady improvement over recent decades, particularly in maternal and infant mortality, as well as life expectancy. The Maternal & Child Health (MCH) programme estimates that MMR is currently 45/100,000. The Infant Mortality Rate is 12.2 per 1,000 live births (2000). These are exceptional achievements for a developing country such as Sri Lanka, and can be attributed to the widely accessible prevention and primary health care services. However, whilst post-neonatal mortality has declined significantly, efforts to effectively address prenatal and neonatal mortality have been less successful. A neonatal mortality rate of 12.9/1,000 suggests continuing problems, and that further improvements need to be made. Life expectancy has risen steadily to around 77 for females and 68 for males (2001), and the fertility rate has declined to around 1.9. This is below population

replacement level. With the rapid ageing of the population and continuing albeit slow success in combating the major communicable diseases, the disease burden has started to shift towards non-communicable diseases including mental diseases, accidents and injuries. The available data indicates that the epidemiological transition is rapidly in progress.

9.2. Challenges and their Implications

Health Services

The services in the state sector are characterized by a very busy and overcrowded system of National, Provincial, General and Base (large town) hospitals and a widely-spread peripheral network of district hospitals and health care units. Utilization and occupancy at these institutions is low. Sri Lanka provided around 0.2 inpatient admissions per capita in 2003. This heavy demand may be due to a number of factors. Lack of confidence of people and insufficient diagnostic capabilities at these peripheral centres are chief among the many reasons for patients bypassing peripheral hospitals. As a result, patients are being admitted to Base Hospitals as well as those in the Provincial, and even at National level thereby causing overcrowding at these institutions as mentioned above. With better primary care, they could have been treated in their home areas on an ambulatory basis. This is aggravated by an absence of clear admission and referral policies.



Referral and counter referrals need to be clearly formalized and monitored., Supplies and drugs have to be ordered and stocked, taking the counter referral possibility into account for the most frequent diseases so that the primary level which will provide the follow up would be conversant and ready for the situation. As the size of the population served varies with population density, the volume of services planned too would vary from institution to institution. But the services offered should be uniform within each level of services and will be clearly known to everyone. In principle it is accepted that health facilities with a curative role should increasingly take on secondary and tertiary prevention, especially in chronic communicable and non-communicable diseases. Similarly, it is accepted that primary care units will have to take on more primary and secondary preventive tasks, especially in relation to non-communicable diseases. Primary care and curative follow-up activities with screening of diseases and work towards patient and family-centred promotion and prevention should be in place. What is not yet clear is the scope of such preventive facilities and the number of workers required to fulfill these tasks. The prevailing paradigm is to use a campaign approach for prevention and restrict patient-centred services for secondary and tertiary care. It is questionable as to how far this paradigm can serve the emerging, as well as the prevailing epidemiological challenges.

There are various branches of medicine in Sri Lanka which contribute to the nation's health. They include Ayurveda, Siddha, Unani, and Homeopathy and other systems of Indigenous medicine. All of

them collectively constitute an integral part of the health sector and must be included in the planning process.

Human Resources for Health

The current major problems are the absence of a realistic approved cadre, imbalance in the recruitment and production of different categories of staff, geographic inequity, imbalances in deployment and a disparity between expected job performance and training, including quality of training.

Currently, there are some disparities in the requirements and supply of several categories of health personnel, particularly nurses and paramedical personnel. Shortages of certain specialist categories cause inefficiency and ineffectiveness in the public and private delivery systems. On the other hand, the growing number of doctors will have serious cost and quality implications. These doctors may not be properly absorbed into the state health system, as the commitment to do so is only until 2010. Even if increasing numbers of doctors move into the private sector, a surplus of doctors practicing privately will cause an increase in supply-driven consumption levels in urban areas. There is also a significant imbalance in the distribution of human resource for health (HRH) among districts. Specifically, the number and the rate of health personnel in the Northern Province is extremely low while districts such as Colombo, Kandy and Galle have a significantly higher concentration.

Health Financing and Resource Allocation

Sri Lanka has achieved an extraordinarily good health outcomes given the level of spending on health. Total expenditure on health was Rs. 62,800M in 2003 of which 11% was capital investment. This amounts to about 3.6% of GDP or Rs. 3,263 per capita (US\$34 per capita). There is heavy reliance on taxation and out-of-pocket expenditure (approximately 48%) as financing sources. Since 1990, total expenditure has been between 3-3.6% of GDP of which the Government's share was around 1.4% and 1.7%. In 2005, 1.9% of GDP was spent on health by MoH. With the existing resource allocation mechanisms certain improvements are possible in the present system in service efficiency, cost effectiveness, quality or ability to focus on the poor. Significant improvements will necessitate a review of allocations, and the allocation mechanisms to provinces, finance and management systems, and financing including allocations based on needs, together with more rational planning and increased funding of services.

Health Sector Management and Stewardship

Although Sri Lanka's health sector has been very successful in reducing the major public health problems that still affect other developing countries, at the turn of the 21st century, the health system faces several major problems in its organisation and management, financing and service delivery mechanism, which require review and effective responses. The prevailing ethos is one of administration, rather than management. Standards and norms are set centrally with little flexibility and authority for managers at peripheral levels to make decisions on finance, staffing and utilisation of resources and to deal with emergency and disaster situations. The issues created by the unfinished agenda of decentralisation, lack of an efficient management information system, and lack of a result-based performance appraisal mechanism pose significant challenges in management. In addition, the health information system is also beset with many challenges. Lack of an updated policy for information, insufficient coordination among managers of information, lack of easy access to existing information, uneven information management capacity, substandard quality of the existing data and sub-optimal use of information and other technology are important challenges that need to be overcome.

The need to update the health legislation, enhance effectiveness, efficiency and accountability of the MOH through improved human and financial management, strengthen managerial performance at the provincial and sub-provincial levels with improved capacity are apparent. Capacity-building to handle decentralised responsibility for managing health care services, strengthening monitoring and

evaluation of health service quality & delivery and enhancing evidence-based decision-making by the MOH and other institutions is important challenge for the new century.

Tsunami and Conflict-affected Areas

The rebuilding of the health system in all of these Tsunami and conflict affected areas remains a considerable challenge for the country. This requires an institutionalized approach and a clear strategy to ensure a smooth transition from emergency to development support. The requirement is for the smooth transition of the emergency aid to sustainable health management. Similarly, it is essential that international assistance be utilized to the maximum, to support the rebuilding with a rational plan for services that can be staffed and resourced.

Optimizing the Private Sector Contribution

The fastest growing segment of private sector health care is outpatient or ambulatory care. Over 47 million outpatient visits were estimated to have taken place in 2003, an increase of 2 million over the 1996 estimate. Of the total ambulatory care market 50% is serviced by the private sector, 34% by government doctors both specialist and non-specialists, 11% by private general practitioners and 5% by traditional practitioners.

The Government has an overall responsibility to ensure that patients are protected and get value for money in both state and private sectors. As such, Government needs to consider how to regulate the private health sector and obtain data from the sector without stifling initiative and innovation. Strengthening the capacity of the private health sector to provide quality care needs to be emphasized. Consideration also needs to be given to how best to encourage partnerships between state and private sectors to deliver quality services and contribute to the national health goals.

Focusing on Vulnerable Groups

The challenge remains to ensure that Government funds in the health sector are targeted towards the poor and most vulnerable in society while that those who can afford to pay are encouraged to do so. Whilst Sri Lanka has been exceptionally successful by international standards in targeting state funds to poorer groups, significant gaps remain, notably for the people in remote and disaster and Tsunami affected areas, those affected by the ongoing conflict and workers in the estates sector, the elderly, the disabled, the mentally ill, working women, children of migrant workers and adolescents.

A Sector-Wide Approach and Inter-sectoral Collaboration

While the Ministry of Health care and Nutrition will take the lead in planning for the sector, it needs to ensure full participation of all those involved in contributing to a healthy nation. The challenge is to involve all partners, other governmental ministries, the private sector, the NGO sector, and development partners as well as civil society. This approach will ensure that contributions from donor agencies are well targeted and contribute to the Government's policy and overall strategy.

9.3 Health Sector in Transition Epidemiological Transition

The Sri Lanka health sector has been a successful model of "good outcome at low costs" in the 20th century. According to the World Health Report 2002, the Sri Lankan life expectancy at birth for the entire population is 68.8, which ranks at the 7th place among 73 countries with GDP per capita below US\$1,000. The success so far achieved is commendable; however, a failure would loom unless actions are taken to face the rapidly changing scenario from a health transition.

Three Problems on Disease Burden

The characteristics of such a Sri Lanka disease burden can be explained by three groups of problems.

Group 1: Continuing Problems - In the developing world, prominent diseases have been infectious and MCH-related diseases. This group of diseases and conditions poses a continuing problem and consists of diseases and conditions that had a high mortality and morbidity in the past but are under fair control now in most parts of the country as stated above. Yet, pockets where mortality and morbidity from these conditions remain high continue to exist. Vector-borne Diseases, such as Malaria, Dengue and Filariasis continue to affect the population, while a third of pre school children remain malnourished. Targeted interventions are planned to address these problems in the next 10 years

Group 2: Emerging Problems - emerging problems that have resulted from societal changes due to rapid urbanisation, industrialisation and/or the breakdown of traditional society and value systems is apparent. These include traffic accidents, injuries, violence and the surge of homicides in the young age group in recent years. There is also emerging problem of HIV/AIDS which is a cause for concern and requires urgent attention.

Group 3: Evolving Problems – These are mostly a result of change of lifestyles, people’s behaviour and stress in daily life that are increasingly been faced by people. This is reflected by an increasing propensity of non-communicable diseases such as Cancers, Heart Diseases and Mental disorders. In Sri Lanka, where communicable diseases and MCH-related diseases have been drastically curtailed, early degenerative diseases such as Ischaemic Heart Disease and Cancer have evolved as major health problems and are more visible due to the prolongation of its society.

Integrated Approach Needed to Challenge the Health Transition

The challenges posed by this health transition have to be faced by a new service delivery system by making changes in its functions. The new health care delivery system should employ an integrated approach with three functional arms, namely: 1) preventive, 2) curative and 3) welfare arms. Curative services cannot alone establish an efficient and cost-effective health system that is capable of challenging the epidemiological transition.

Preventive Arm:

Policy for integration within the preventive area has to be based on tackling the risk factors from foetal stage to old age. This is so-called “*life-course approach*”. The evolving and emerging diseases (Groups 2 and 3) are heavily based on people’s behavior and lifestyles. A whole set of integrated actions needs to be implemented vigorously. According to a WHO study on ageing, there is a critical window for the exposure of risk factors in the early stage of life to cause degenerative diseases at later age, proven by recent epidemiological data. Hence, appropriate preventive interventions for different age groups have to be explored to mitigate these evolving diseases.

Curative Arm:

The policy on curative care should be to reorient the services by reviewing the functions at different health care facilities, namely, primary, secondary and tertiary care facilities. These functions have to be re-defined, according to the evolving disease pattern and integrated to an emergency healthcare network, a rehabilitative community support network and a primary care network.

Welfare Arm:

Policy focus on establishment of a comprehensive health care system should also highlight the importance of welfare elements. This is particularly vital to maintain a healthy society for the aged and disabled people. Rehabilitation and social care need to be associated with curative care services and community base programs.

Figure 9.1. Required Integrated Approach to a Comprehensive Health System

	Diseases	Risk Factors	Preventive Arm	Curative Arm	Welfare Arm
Group 1: Continuing Problem	MCH-related Infected Others	Nutrition; Maternal State Nutrition; Environment	○ ○ ○	○ ○ ○	○
Group 2: Emerging Problem	Traffic Accident Homicide & Violence Others	Multi-sectoral Social Breakdown	○ ○ ○	○ ○ ○	○
Group 3: Evolving Problem	Lifestyle-related Mental Others	Individual Lifestyle, Diet habits Stress; Social Breakdown	○ ○ ○	○ ○ ○	○ ○ ○
Approach to Health Policy and Strategy			New Preventive Policy, based on a “ Life-Course Approach ”	Responsive & Sustainable System Plan	Preparation of an Ageing and Welfare Society

9.4 Policy Framework

Ensuring equity in healthcare through easy access to quality and modern health care services, with emphasis on the lower income groups and the most vulnerable in the society will be the main focus of the health sector in the Medium-term 2007-2016, the period leading to the MDG achievement. The public health sector has to commit itself to delivering optimum results to the country by becoming results oriented and more responsive to the peoples needs.

The major thrust of the health policy for next 10 years will be on following areas-

- Health promotion, prevention and control of diseases, both communicable and non-communicable diseases
- Fostering healthy lifestyles
- Serving the needs of underprivileged, undeserved and vulnerable groups
- Human resources development with emphasis on building positive human attitudes and appropriate knowledge and skills in provision of services of defined quality
- Strengthening quality and range of existing services with emphasis on bridging the gaps therein
- Minimising regional differences in healthcare delivery system
- Ensuring availability and affordability of efficacious and good quality drugs
- Encouraging private investment in healthcare provision
- Improving health information system
- Reforming the organizational structure and management to improve efficiency, effectiveness and accountability
- Assuring that health resources are optimally utilized and
- Recognition that health and other sector developments are mutually inter-dependent

TARGETS AND INDICATORS

Indicators	Base Line (2006)	Target by 2009	Target by 2013	Target by 2016
Health Status				
<i>Maternal Mortality Ratio/100,000 live births</i>	45	42	35	20
<i>Infant Mortality Rate/1000 live births</i>	11.8	10.6	9	7
<i>% of pre schoolchildren under weight</i>	25	22	18	15
<i>Prevalence of low Birth Weight</i>	16	13	10	8
<i>Prevalence of Pregnant mothers with Body Mass Index less 18.5</i>	25	22		
<i>Incidence of TB</i>	4553	4000	3000	2000
<i>Number of Deaths from cancer</i>				
<i>Prevalence of HIV among 15-24 year group</i>				
<i>Deaths from Rabies</i>	55	30	10	0
<i>Annual parasite index for malaria</i>	2.6	1.3	0.2	0
<i>Deaths from Dengue</i>	29	10	5	0
Health Service Provision				
<i>DPT3 vaccine coverage</i>	95.9%	100%	100%	100%
<i>Measles vaccine coverage</i>	98.9%	100%	100%	100%
<i>% of Women in child bearing age practicing modern family planning methods</i>				80
<i>% of drugs failed in quality tests</i>				2
<i>% of essential drugs available in minimum stock at any given time</i>				100
Health Resources				
<i>Doctor / population ratio(/100000)</i>				
<i>Number of nurses trained</i>	5000	15000	20000	25000
<i>Per capita expenditure for patients</i>				
<i>% of public expenditure on health</i>				
<i>% of Health institutions having free access to the central data base</i>	NA	15	75	100
<i>Number of Hospitals operating quality management units</i>	10	All B.Hs	All THs	All THs
<i>% Provincial /district / Institutional planning units in full capacity</i>		75	100	100
<i>% of Hospital managers undergone training in middle level management</i>		75	100	100

9.4.1. Vision and Mission for the Health Sector

Based on the above policy framework the Vision and Mission for the health sector within the Government's overall national development agenda up to 2016 will be to ensure that the basic needs of the entire population are met, and that each citizen is given the opportunity to realize his/her full potential.

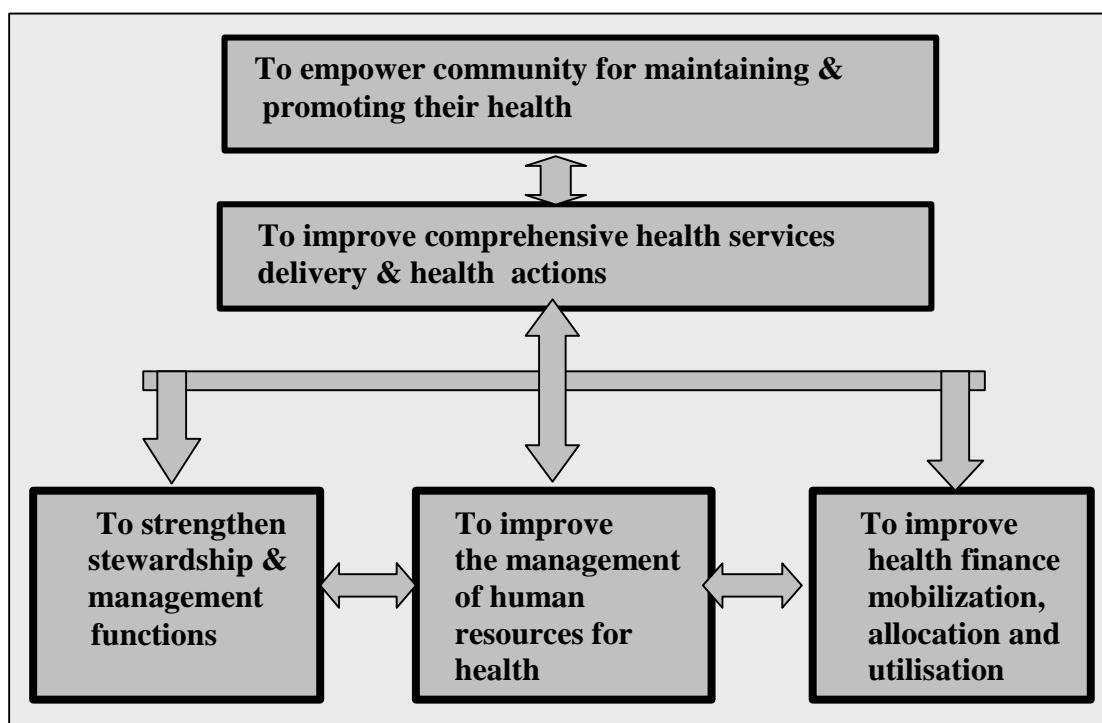
Vision: To foster a healthier nation that contributes to its economic, social, mental and spiritual well-being

Mission: To achieve the highest attainable health status by responding to people's needs, working in partnership, to ensure access to comprehensive high quality, equitable, cost effective and sustainable health services.

The vision of improving the health status of the people will be achieved by addressing the following strategic objectives:

- 1) To improve comprehensive health services delivery and health actions
- 2) To empower community for maintaining & promoting their health
- 3) To improve management of human resources for health
- 4) To strengthen stewardship and management functions
- 5) To improve health finance mobilization, allocation and utilization

Figure 9.1 Inter-relationship among the Five Strategic Objectives



To ensure the attainment of five strategic objectives, the following immediate objectives are planned.

1. ***To ensure the delivery of comprehensive health services, which reduce the disease burden and promote health:***
 - 1) rationalize and strengthen health network of facilities and services
 - 2) reduce priority diseases/conditions through strategic interventions
 - 3) enhance quality of service delivery
 - 4) improve health status of vulnerable populations
 - 5) increase public confidence and patient/client satisfaction in the health services
 - 6) access new technologies
 - 7) strengthen public-private partnerships in order to enhance efficient health service delivery
 - 8) ensure adequate drugs, material and equipment for service delivery
2. ***To empower communities (including households) towards more active participation in main-taining their health:***
 - 1) improve public awareness of their rights, responsibilities and options for care
 - 2) improve participation of civil society and Non-Governmental Organizations in promot-ing behavioural and lifestyle changes
 - 3) monitor public perception of their needs and of the health system towards serving as an input for improvement
3. ***To improve human resources for health development and management:***
 - 1) expand functions and strengthen capacities of National and Provincial Ministries of Health in human resource development and management
 - 2) rationalize the development and management of human resources for health
 - 3) improve management, clinical and public health competencies of health staff

4. To improve health financing, resource allocation and utilization:

- 1) increase government financial support at all levels to strengthen the financial sustainability of the health sector
- 2) improve allocative efficiency of public funds
- 3) make optimal use of existing financial resources
- 4) strengthen financial management
- 5) improve financial equity and related equity of access
- 6) identify and test alternative financing mechanisms
- 7) optimize private sector contribution

5. To strengthen stewardship and management functions of the health system:

- 1) strengthen the capacity of the MoH to provide leadership and policy formulation and direction.
- 2) strengthen the capacity of the MoH and Provincial Health Ministries to provide advocacy and policy implementation
- 3) strengthen managerial performance at national and decentralized levels
- 4) enhance efficiency, effectiveness, accountability and transparency of the MoH & decentralized units
- 5) strengthen and introduce, if needed, performance management systems
- 6) establish a system for regulating the services of public & private providers
- 7) strengthen management information system
- 8) strengthen coordination and partnerships with other sectors
- 9) strengthen capacity in health research and technology assessment

9.4.2. Healing the Nation through “Suva Sevana”

Under the “Suva Sevana Programme” announced in the Mahinda Chinthanaya, the government is committed to preserve the free health service and safeguard the rights of every citizen for the benefits there under. A cornerstone of the strategy of the Government with regard to health is that both curative and preventive aspects will be accorded equal priority. The main strategies of the government health policy can be described and summarized into following broad areas:

Ensuring Good Health

“I consider it my responsibility to preserve the free health services and safeguard the right of every citizen for the benefits there under. In this regard immediate action will be taken to enhance these services both qualitatively and quantitatively through increase budgetary provisions”

*Mahinda Rajapakse
H.E the President*

Private Health Sector

- The private sector will be encouraged to set up facilities to maintain selected electro-medical equipment, laundry services, security services, catering, cleaning, disposal of clinical waste etc for use by public and private medical care institutions on contract basis.
- Incentives will be offered for setting up of private practices by doctors in designated rural areas and also for setting up private nursing homes in pre-selected areas.
- Private practice by government doctors, nurses and other paramedical personnel outside duty hours would be allowed to continue with better supervision and firm punitive action to control misuse of the privilege.

9.4.2.1. Preventive and curative services

1.a The public investment in healthcare as a percentage of GDP will be increased significantly to enhance the healthcare services both quantitatively and qualitatively. It is expected to increase the public investment in healthcare as a percentage of GDP from present level of 2.3 to 3.0 by 2016. The proposed investments are to fund priority interventions which are necessary to improve equity and quality of public healthcare services. Their impact can be measured in terms of reducing disease burden and improving health system performance. The share of public investment for preventive care activities will be increased gradually over the years to ensure balance between curative and preventive services.

1.b Preventive care services will be streamlined with greater emphasis on health promotion. Programmes to promote health in different settings such as schools, work places will be designed and implemented for this purpose. Policies with regard to school health services need to be reviewed with a view to redesigning its services in line with the health promoting school concept.

1.c Major communicable diseases will be more effectively controlled and where ever possible eradicated (such as polio), so that these diseases will no longer be a threat to health. A well designed epidemiological surveillance system will be established in the Provinces and smaller units in general hospitals. Government commitment to sustain the trust of control of communicable diseases through vaccination will be ensured.

It is anticipated that by 2015 Malaria, Dengue, Rabies and Japanese Encephalitis will be effectively controlled. Enhance community participation for elimination of mosquito breeding sites and increase use of alternative vector control methods are necessary for this purpose. High priority will be given for rabies control through increasing the coverage of dog vaccination. Necessary actions will be taken to ensure that HIV prevalence in the country is kept to a minimum level.

1.d The incidence of non-communicable diseases will be kept very low. This will be achieved through the development of health education and primary preventive measures. Access to cost-effective programmes, such as screening for early detection to prevent and control selected non-communicable diseases will be wide spread. Government has already taken steps to develop cardiology units in teaching hospitals with modern investigation facilities. Strengthening Intensive Care Units in General Hospitals and emergency treatment units in Divisional Hospitals equipped with mobile resuscitation units is essential to provide the essential services to patients. Prevention and control of addictions such as alcohol and tobacco cannot be the responsibility of the health sector alone. All government , private and non-government organizations will be encouraged to mobilize mass support for prevention and control of these addictions.

1.e Curative care services will be expanded through the selective upgrading of facilities in order to make these services more accessible to the rural poor. There is a need for public investments in building rural sub-centres and primary health centers in the rural areas posted with adequately –trained dedicated staff and equipment in order to reduce the rural-urban gap in health indicators. Selected healthcare institutions in the periphery will be strengthened by providing necessary facilities to them. Healthcare services will be expanded to meet the needs of the plantation community and specific groups such as adolescent, elderly, disabled, families of migrant workers, victims of conflict. Development of a comprehensive mental health programme incorporating education for prevention of mental diseases, their early detection, referral, appropriate treatment and community-based rehabilitation is necessary in future as mental illness is an emerging major problem. Also, establishing mechanisms to provide need-based care, setting priorities and allocating resources equitably are some of the important areas which need be addressed.

1.f. Effective and affordable new technologies and innovations will be introduced into the state healthcare services. New technologies and innovations to reduce morbidity while increasing the quality and efficiency of care and are essential for development of the health sector. Meantime it is necessary to ensure that available equipment is in proper working condition and utilized in their optimum capacity.

1.g. National cancer prevention and treatment programmes will be strengthened emphasizing early detection and the availability of high quality treatment at the time when such treatment is most optimal and necessary. **While strengthening the existing cancer treatment units at least two new fully fledged cancer hospitals need to be established in North Central and Uva provinces.** Management of terminal cancer in peripheral institutions will be encouraged. Also, adequate qualified manpower, materials and financial resources would be provided for cancer control programmes.

1.h. A quality assurance strategy will be developed and introduced to all healthcare institutions to facilitate the delivery of high quality services central to the ethos of the health sector.

1.i. A well defined referral system will be designed and implemented. Establishment of a database and issue of a **health card** to each individual are key milestones in this regard. A pilot project initiated in a selected province and if found suitable, the referral system will be extended in a phased manner to other areas and institutions. This would minimize the predominant issues in the health sector such as overcrowding of secondary and tertiary care hospitals, under utilized facilities at the periphery and long waiting list for surgeries.

1.j. Reforming the organizational structure and management. Management capacity within the state health sector will be strengthened to introduce changes and make the sector more responsive to the emerging and re-emerging challenges. This requires a major shift in the management and organizational structures of all parts of the system. With provinces assuming more responsibilities for operating health service, the role and functions of the Ministry of Health should move towards providing guidance, setting standards, ensuring quality, exercising regulatory functions.

The Centres of Excellence

Presently there is a continuing need for very specialized services for some of which there are no facilities. For some others, only scattered or sub-optimal services exist in hospitals both in public and private sectors. The new units which may require to be set up for better utilization of resources would include-

- Oncology Unit,
- Paediatric Surgical Unit
- A Model Medical Record Unit
- A Model Community Health Centre
- A Special Centre for treatment of AIDS.
- A Vascular Surgery Unit

The development of such centres has not taken place for decades due to financial constraints. However, it is time that a right balance between the constraints and the special needs for becoming more self-reliant in new technologies. There for it is necessary to identify units/services to be given the status of a Centre of Excellence. The capital expenditure needs would be assisted to a great extent by development partners and donations. The recurrent expenditure would be generated through fee-for – service and donations with core funding for staff and maintenance of equipment from the government.

9.4.2.2. Drugs and Pharmaceuticals

2.a Availability and affordability of efficacious and good quality drugs to the people will be ensured. Local pharmaceutical industry will be strengthened. The National Medicinal Drug Policy (NMDP) has been already approved by the Cabinet. The National Standing Committee will oversee the implementation of the NMDP. A statutory body called National Medicinal Drug Regulatory Authority, which is responsible for regulation and control of manufacture, importation, registration, sale and distribution of medicinal drugs will be established.

2.b. A national drug list including safe, effective, low cost, essential drugs required to meet the needs at primary, secondary and tertiary levels of healthcare in the public sector will be drawn up.

2.c. State will provide sufficient funding for procurement and supply of necessary medicines with priority for essential medicine, monitor appropriate use and prevent waste.

2.d. The State Pharmaceutical Manufacturing Corporation will be strengthened to manufacture locally the drugs with a relatively high demand in the country. Government has already taken action to purchase pharmaceuticals required for the State health sector directly from State Pharmaceutical Manufacturing Corporation.

9.4.2.3. Health Information

3.a. Developing a health information policy, IT enabled health information system connected with all hospitals, and strengthening the capacity among managers and users of information will be given high priority.. Computerized data bases will be established at National, Provincial and Divisional levels. In order to ensure continuity of care a special record book would be used by each individual in the country. The inside cover of this record book will be designed to be the Health Card. Each person will be encouraged to carry the health record book. Practitioners of all systems of medicine will be encouraged to make brief notes of condition treated, diagnosis, medicines given etc. This will be highly cost effective and easily accessible medical record.

9.4.2.4. Health Insurance

4.a. Agrahara insurance for the public sector employees will be continued. An appropriate health insurance scheme covering the people who has no access to any health insurance benefits will be developed by converting out of pocket expenditure into a pre-paid system of assurance.

4.b. The insurance sector will be encouraged to launch a major campaign to promote the general public to take up health insurance and large private sector establishments to provide health insurance to their staff.

9.4.2.5. Human Resources Development

5.a. Scientific and systematic manpower planning exercise will be undertaken at both national and provincial levels with regular periodicity as mandatory for determination of carders in public service for all categories of staff.

5.b. The deficiencies in accepted norms for staff: student ratio, equipment etc in the Medical Faculties will be corrected on priority basis. The admissions will be in keeping with the projected demands and the facilities available.

5.c. The PGIM will be strengthened to produce adequate number of specialists to meet the needs of both public and private sectors. In complementary to other development programmes in the health sector, the number of specialists in government hospitals and facilities for them will be increased gradually.

5.d. Adequate resources will be budgeted for the improvement of teaching facilities at nursing schools and paramedical training centres to meet the current admission capacities. A National Training Centre for paramedical personnel will be established to produce adequate number of paramedicals to meet the needs of both public and private sectors for next 10 years. The establishment

of this Centre will provide opportunity to train 5 paramedical categories including Medical Laboratory Technologists, Physiotherapists, Occupational Therapists, Pharmacists, and Radiographers.

5.e. Higher level Diploma/ Degree courses will be established in the Affiliated University Collages to meet the needs for higher level paramedical personnel as well as to encourage career development.

5.f. Incentives to physicians, nurses and paramedical staff will be part of a motivating strategy so as to encourage them stay in rural and remote areas.

9.4.2.6. Indigenous System of Medicine (ISM)

6.a. Service facilities of ISM will be made more client oriented and productive. Building of consumer friendly milieu in all ISM establishments for increasing the social responsiveness and vitalizing the streamlining new vistas for ISM in potential fields are vital for this purpose.

6.b. Support and encourage the development Ayurveda, the system of traditional medicine, to a level that proudly complements entire system of health services and health practices and that Sri Lanka can offer to the world at large.

6.c. Provide necessary facilities to Ayurvedic doctors to obtain rare items of medicine/ drugs. Actions are proposed to introduce a new Bill on Ayurveda and the draft Bill Ayurvedic drugs, cosmetics, tools and equipment in the parliament.

6.d. The private sector will be encourages to establish centres of special therapy of ISM, such as steam therapy, pancha karma etc

6.e. The need of essential drugs will be ensured through local production. Local production of Homeopathic medicines will be encouraged.

6.f. A fully fledged institute of Homeopathic Medicine within a university framework and with Homeopathic Teaching Hospital will be established to train adequate numbers of Homeopathic personnel.

6.g. Local and foreign investments will be promoted in the development of industries based on ISM and quality of products and services will be assured by establishing regulatory mechanism required.

9.5. Strategies by Time Horizon

Short term (by 2009)	Medium term (by 2013)	Long term (by 2016)
<ol style="list-style-type: none"> 1) Increased budgetary allocation for health (preventive and curative) service. 2) Provide residential facilities for doctors. 3) Provide necessary facilities for doctors in the rural areas. 4) Total eradication of polio. 5) Strengthening the existing cancer treatment units 6) Construction of an accident service unit in Teaching Hospital Kandy 7) Improvement of curative healthcare services at Anuradhapura Hospital 8) Development of Nuwaraeliya Hospital 9) Development of Monaragal Base Hospital 10) Development of Hambanthota Hospital 11) Development of Godagama Hospital (Matara) 12) Establishment of Beliatta specialized treatment facility 13) Strengthening provision of health services in Kegalle General Hospital. 14) Total Quality Control (TQC) management project. 15) Medical Equipment management project 16) Establishment of a new hospital with the ETF for the benefit for it's members. 17) Strengthen the National HIV/AIDS prevention programme. 18) Development of Neuro Trauma unit at NHSL 19) Development of the National Blood Transfusion Services 20) Development of Jaffna Teaching Hospital 21) Extend the nutritional intervention programmes to cover all undernourished expectant mothers. 22) Strengthen the mid-day meal programme to cover all undernourished school children. 23) Rehabilitation/ improvement of selected MOH offices, MCHs, & other health clinics, provision of necessary equipment & vehicles (New) 24) Recruit and train staff necessary for preventive services in estate sector. 25) Recruit and train necessary staff for the hospitals which are being developed in the estate sector as well as in other areas. 26) Establish a new medical insurance system for public servants and their family members. 27) Setup dedicated wards in government hospitals for public servants and pensioners to provide medical benefits under the Agrahara insurance scheme. 28) Implementation of revised drug policy 29) Disaster and accidents prevention and response programme established 30) Community based programmes for care of elders and disabled. 	<ol style="list-style-type: none"> 1) Selective upgrading of National and Provincial health facilities in order to make curative services more accessible to the rural poor. 2) To develop an ambulatory care unit at National Hospital of Sri Lanka 3) Construction of OPD, Accident services and Ward complex at Base Hospital, Gampola. 4) Construction of new medical ward complex in Teaching Hospital, Kandy. 5) Establishment of two modern cancer hospitals 6) Strengthening maternity care services by providing village level maternity clinics, medical advice and related service. (New) 7) Provide necessary facilities for nursing training schools. 8) Establish a National Institute of Health Management with residential facilities for continuing education of health personnel. 9) Increase intake of medical students. 10) Alternative programmes including increasing scholarships to produce specialist doctors to meet the requirement. 11) Manufacture locally drugs with a relatively high demand. 12) Strengthen the SPC. 13) Importation of essential drugs by the states in competition with the private sector. 14) Total eradication of Malaria, Dengue and Rabies. 15) Developing a Health Information policy, IT enabled Health Information System connected with all hospitals and strengthens the capacity among managers and users of information. 	<ol style="list-style-type: none"> 1) Continuation of TQC management project. 2) Comprehensive care programme for epilepsy 3) Continuation of Equipment management project. 4) Epidemiological services (on-going) 5) Institutional restructuring- Bringing preventive care institutions under one roof and allocate necessary expenditure under the Ministry of Healthcare. (New) 6) School health programmes (On-going) 7) Oral Health Service Management Project (New) 8) Programmes for total eradication of Malaria, Dengue & Rabies (On-going)

10. Sports and Culture

10.1 Sports

10.1.1 Current Situation

Sri Lanka has made considerable progress in developing sports during the last decade and it has gained a prominent position as front runners in swimming, athletics, and volleyball and have gone on to win number of medals in international sports competitions including Olympics and Commonwealth. The country did extremely well in SAARC 2006, with our sports men and women winning 37 gold, 63 silver and 77 bronze medals and third in rank of medal standing. However, sports facilities in the country are not developed up to the standard levels and most of the facilities are surrounded in Colombo and adjoining areas. Notably, motivation as well facilities are not developed or widespread developed in the school system. In addition there is a lack of sports facilities, especially in the rural areas of the country. Sports development programmes have so far tended to be confined to the distribution of sports items at the micro or local level. Lager scale macro development has been neglected. The aim is to change the culture of sport and physical activity in Sri Lanka in order to increase participation across all social groups leading to improvements in health and other social and economic benefits and providing the basis for progression into higher levels of performance.

10.1.2 Challenges and Issues

The main challenge with regard to sports sector is to develop new ways of connecting sport with everyday life, alleviating time pressure by creating opportunities where people already spend their time – in the workplace, where people shop, alongside other community facilities. Facilities for talented sportsman and women are inadequate for performance improvement. International class trainers, exercises equipment, and other scientific and high tech training methods for tracking performance are limited to urban areas. Non availability of bio-mechanic training and laboratory facilities for the sports medicine are also need to be addressed. Main issues in relation to development of the sports sector includes followings-

- Inadequate facilities for sports education.
- Lack of co-ordination between National, Provincial District, Divisional levels and between parallel fields as education, health, tourism etc.
- Lack of talent identification at all level.
- Lack of sponsorships.
- Lack of high-tech training facilities specially at provincial level.
- Inadequate facilities for sports medicine. (none availability of Bio-mechanic training, laboratory facilities etc.)

10.1.3 Vision

To be the most active and the most successful sporting nation in the world.

By 2016 Sri Lanka will be one of the strongest sporting nations in the world. Sri Lankan athletes, swimmers, cricketers, and rucker players will perform in world renowned sports competitions, winning medals, for our country on a hitherto unprecedented scale. They will also challenge world leaders in football, hokey, volleyball, golf, water sports, and shooting.

There are several areas in which future sports plan needs to take a fresh approach to achieve the above vision: Increasing participation in sports and active recreation, improving levels of performance, widening access for scientific sports, improving health and wellbeing, creating safer and stronger communities.

10.1.4 Proposed Ten Year Policy Framework

- Improve infrastructural Development activities (fully fledged sports ground for each District, High altitude training centers, Sports Academy etc.)
- Improve advanced, training facilities with modern sports equipment and high tech training methods for coaches and sportsmen.
- Create Institutional Development in the field of sports to meet national requirement.
- Promote “Sports Tourism” related activities and Popular Adventure Sports.
- Organize meditation programmes in curriculum of sports education and sportsmen & women for physical and mental fitness
- Increase awareness of sports ethics and law and regulation.
- To improve efficiency & effectiveness of sports administration.

10.1.5 Strategies

- Construct and improve sports facilities such as sports complexes, play grounds, sports training facilities with international and national standards in order to bring the skills of rural sportsmen and sports women to a higher level.
- Implement physical education programme for every child in order to create a healthy nation.
- Identify and nurture talented sportsmen/women at the district and local levels and encourage them to develop to international level through Kreedha Shakti Programme.
- Strengthen and motivate the moral of the sportsmen/women through payment of monthly allowances.
- Improve the efficiency and effectiveness of coaches and trainers by developing their professional capabilities.
- Provide theoretical as well as practical and technical education and training for the development of sports for sportsmen/women.
- Implement an assessment mechanism for physical education starting in Grade 01 of school education

Expected Targets

- At least 5 high performances at Olympics 2012.
- Winning medals at all sports events to be held at Asian Games, Commonwealth Games, World Cup and Olympic.
- Strong Junior Pool for 2007.
- Fully fledged sport development complexes for each district.
- Establish a Sports Academy at Nuwara Eliya to train national and international sportsmen.
- Recognition of sport as a degree subject for 2008.
- Setting up of a Research Division on sports and subsequently commence a university faculty on Sports and Physical Education for 2010.
- A university for sports shall be established by 2016

10.1.6 Investment Plan 2007-2016

Activity	Expected Cost (Rs.mn)
(01) Provide more opportunities for training and competitions.	1100
(02) Provide facilities for talented sportsmen to participate at international competitions.	2000
(03) Continuing award systems for best sportsmen and sportswomen	1250
(04) Organize talent identification programme through “Kreedha Shakthi” Programme for districts in 2006, 2007. Provide support services to training pools – Provide accommodation, suitable equipment.	1500
(05) Educational programmes through foreign coaches for local coaches and the athletes.	1000
(06) Identify location to establish fully fledged sports complexes for identified districts.	5500
(07) Commence high attitude training centre (Sports Academy at Nuwara-Eliya to be established)	1937
(08) Coordinate with the Kelaniya University and recognize sports as a degree subject.	500
(09) Coordinate with Kelaniya University to affiliate National Institute of Sports Science as Faculty of Sports as a initial stage to commencing University of Sports by 2016.	2500
(10) Create Sports Medicine Units for base hospitals at each districts under the National Institute of Sports Medicine.	1500
(11) Attach physiotherapists and masseurs to each unit to treat sudden injuries at sports grounds.	250
(12) Establish and provide residential treatment facilities for sportsmen and sportswomen.	250
(13) Establishment of course for Sport Media reporters and correspondents at the National Institute of Sports Science.	500

10.2 Culture

Vision

Being a country with a proud heritage and a distinct culture, Sri Lanka should march forward with other countries as it possession, ample opportunities for development. Therefore Sri Lanka’s cultural treasures are preserved and protected, and the country’s cultural, religious and aesthetic values are integrated into social life and shared with the world on a sustainable basis.

Objectives

- To articulate an unambiguous cultural imperative in the nation’s future development.
- To recognize, promote and instill an awareness of the nation’s rich cultural heritage and its continued value as a rich fund of social philosophy
- To bring to the forefront the role of our culture and heritage, religious faith and aesthetic values in meeting emotional and religious needs, in maintaining Sri Lanka’s distinct identity, and in cushioning us from many of the negative impacts of modernization.

10.2.1 Current Situation

On the whole, the culture of the Sri Lankan nation has reached a stage where many features have developed up to a point that prevents maintenance of their lives successfully and peacefully and obstructs the proper realization of the benefits of development activities by the people. As a result of this the crime rate in the country has increased. The family culture has collapsed so as to disintegrate the social unity. In such a context traditional values considered to be an integral part of our society throughout the nation's history have been destroyed.

This has reached such a proportion as to obstruct the general development of the country. The following special measures needed for the restoration of the culture so destroyed have to be put in place.

10.2.2 Strategies

Establishment of National Identity : Reshape our distinct cultural traits that are perishing fast in the urban areas and to a lesser degree in the rural sector so as to maintain the life of the community satisfactorily.

Integration of Cultural Heritages: Protect our national heritages to develop our pride and dignity and to build within the people self energy that could nullify the factors that destroy national heritages in order to prevent this situation and to reshape our socio-economic environment in a manner more beneficial to the people.

Use of Language and Literature: Build a society in the country by directing those who have distanced themselves from reading to the habit of reading books and other literacy pieces providing the necessary materials for the artistic enjoyment of the community while protecting their inherent power of expression.

Resurrection of various arts and crafts : Provide more opportunities to the people to make use of all the ancient arts and crafts of Sri Lanka by preventing their destruction and rehabilitating and resurrecting them.

Protection and Restoration of values : make the people of this country a peaceful and united lot by restoring the positive values that are declining fast.

Cultural Development Plan 2007-2016

Objective	Activity	Expected Investment 2007-2016 (RS.Mn)
Preserve and conserve cultural treasures and heritage sites	• Renovation and development of important museums such as Galle Maritime Museum, Science and Technology Museum, Osteology Gallery and Sigiriya Museum.	2000
	• Completion of conservation work on Abhayagiriya, Jetavana monasteries Maha Vihara at Anuradhapura World Heritage site'	1000
	• Preparation of the tentative World Heritage list for UNESCO and inclusion of such sites as Sri Pada, Horton Plains and Jayaganga irrigation scheme etc. to World Heritage.	2
	• Development of Wayamba Quadrangle containing ancient kingdoms of Kurunegala, Dambadeniya, Yapahuwa and Panduwasnuwara.	500
	Demarcation and preparation of plans on places where	500

Objective	Activity	Expected Investment 2007-2016 (RS.Mn)500
	<p>Yapahuwa and Panduwasnuwara.</p> <ul style="list-style-type: none"> • Demarcation and preparation of plans on places where archaeological monuments stand. <ul style="list-style-type: none"> oF 2007 – 500 blocks of land oF 2008 – 200 blocks of land oF 2009 – 2000 blocks of land oF from 2010 – 1000 blocks of land per year • Commencement of excavations over megalithic burial sites which are found in Tissamaharama, hinterland of Anuradhapura, Sigiriya and Kandy • Exploration of 05 archaeological places which have not yet been explored on Divisional Secretariat or Grama Niladari Division basis. • Identification and conservation of all the temples where the scared tooth relic was enshrined during the past and publication of a book including such places. • Collection and recording of indigenous cultural and artistic events which are being extinct in Sri Lanka at present such as folk songs/ folk poems/ folk dances/vannam/drum beatings/rituals/devil dances/puppetry and production of Compact discs by including them. • Continuation of conservation work at the ancient city of Magama and expansion of the activities to the Southern Province and focus attention to the heritage sites of historic Ruhunu including Rathnapura and Monaragala Districts. Presentation of these sites after developing them as a new heritage region. • Exploration, archaeological excavation and conservation of remaining heritage sites. (Ex. Western Monasteries, Toluville, Asokarama etc.) at the world Heritage City of Anuradhapura. • Collection and printing of the books related with the folk stories, folk lore and various cultural events which contains the high socio-cultural value, annually • Records Management and Preservation of 120 Institutions in Government Sector • Production of Mobile Exhibition compartment for Galle Heritage 	<p>1000</p> <p>500</p> <p>500</p> <p>50</p> <p>100</p> <p>250</p> <p>50</p> <p>250</p> <p>100</p>
<p>Teach, develop, share our deep rooted cultural values, rituals, arts, crafts, music, dance, cinema etc. to youth, schools leavers and interested persons</p>	<ul style="list-style-type: none"> • Establishment of SAARC Cultural Centre • Establishment of 700 Rural Societies. • Construction of Cinema halls • Launching of a Drama Network with the Association of all Cultural Centers island wide • Production of film depicting scenes of Galle Fort • Intervention of the National Film Corporation for the Establishment of a local cinema which reflected the Sri Lanka identity under state patronage • Renovation and refurbishment of all the theatres under the Tower Hall Theatre Foundation as specified in the Mahinda Chinthana. • Conversion of first and second floor of Sarasavipaya into a Drama Academy. 	<p>300</p> <p>100</p> <p>10</p> <p>50</p> <p>10</p> <p>750</p> <p>250</p>

Objective	Activity	Expected Investment 2007-2016 (RS.Mn)
Promotion of cultural tourism	<ul style="list-style-type: none"> • Establishment of Visitor facilities at Anuradhapura, Polonnaruwa, and kandy • Introduce Special boat service around Galle Fort for attraction of tourists. • Introduction of the Cultural Tourism concept to the Southern Cultural Triangle and popularize the southern heritage sites among the cultural tourists. • Focus attention to the heritage sites in the Eastern Province and develop cultural tourism in the region. • Ensure preservation of industrial heritage cultures – such as tanks and other irrigation works. • Construction of Performing Art Centre. 	<p style="text-align: right;">750</p> <p style="text-align: right;">100</p> <p style="text-align: right;">10</p> <p style="text-align: right;">50</p> <p style="text-align: right;">100</p> <p style="text-align: right;">500</p>

11. Towards a Flexible and Globally Employable Workforce

11.1 Introduction

Having a skilled and easily trainable labourforce is one of the main advantages that Sri Lanka has in the global economy. Labour makes all entrepreneurial and productive activity possible, and underpins the proper and effective functioning of the state. Therefore policies related to labour and employment should be developed with as much forethought as other aspects of economic activity.

Poverty still afflicts nearly 23 percent of the national population. Access to work is the surest way out of poverty, and the priority for Sri Lanka in the next ten years is job creation. Moreover, getting people into productive activities is the way to create the wealth that enables social development. Sound and sustainable investment and growth, access to the benefits of the global economy, supportive public policies and an enabling environment for entrepreneurship and enterprise are what drive employment creation, and these initiatives are at the heart of the Mahinda Chinthana (2005). However, employment alone will not help families to exit poverty, as over half of the households where the main income earner is a regular wage and salaried worker, are below the poverty line. It is clear therefore that it is not ‘any job’ that will help the worker to overcome poverty, but a job with certain minimum acceptable standards, such as an adequate wage.

11.2 Vision for the Sector

In this context, there are several areas in which national policy needs to take a fresh approach such as changing from a traditional, obsolete labour policy to a growth oriented and investment friendly labour market-led approach ensuring a decent work environment and set out a vision for all workers in Sri Lanka.

A future of peace and prosperity in which all Sri Lankans enjoy a better quality of life free from poverty and deprivation, through the promotion of opportunities for women and men to obtain productive work in conditions of freedom, equity, security and human dignity

Box 1

What is Decent Work?

Decent work “..... is about your job and future prospects; about your working conditions; about balancing work and family life, putting your kids through school or getting them out of child labour. It is about gender equality, equal recognition, and enabling women to make choices and take control of their lives. It is about your personal abilities to compete in the market place, keep up with new technological skills and remain healthy. It is about developing your entrepreneurial skills, about receiving a fair share of the wealth that you have helped to create and not being discriminated against; it is about having a voice in your workplace and your community. In the most extreme situations it is about moving from subsistence to existence. For many, it is the primary route out of poverty. For many more, it is about realizing personal aspirations in their daily existence and about solidarity with others. And everywhere, and for everybody, decent work is about securing human dignity”.

Source: International Labour Organisation (2001) Reducing the Decent Work Deficit, Report of the Director General to the International Labour Conference, 89th Session.

11.3 Key Issues in the Sector

The realization of the vision of the sector requires the following key issues to be addressed through sound policies and strategies.

- Huge share of employment in informal sector
- Lack of entrepreneurial culture of the youth and queuing for public sector employment
- Lack of quality employment opportunities for women
- High unskilled labour migration
- Illegal Remittance
- Low Productivity
- Lack of training for employment of youth
- Absence of legislative coverage for informal sector
- High Level of employment rigidity
- Absence of social security for unemployed
- Adversarial system of industrial relations
- Absence of dispute mechanism system for public sector.
- Ageing population
- Child Labour

11.4 Future Policy Directions

National Labour Sector Development Plan in Sri Lanka will be shaped according to four strategic areas to address these issues. The focus areas are employment generation, skills development and labour productivity, increase the flexibility of labour laws and regulations and increase employer - employee relations.

11.4.1 Employment Generation

The state has a workforce of around 7.8 million by beginning of year 2006 of which 2.4 million are women workers. 91 percent of the labour force is categorized as employed which includes unpaid family workers. Of this around 47 and 13 percents are in the private and public sector respectively. The vast majority (70 percent) work in the unorganized or informal sector; sometimes in conditions of partial employment, often without adequate access to decent wages or social security protection. Nearly 45 per cent employed in the service sector and 25 per cent and 30 per cent in industries and agriculture respectively. Employment in agriculture has shown a steady decrease, whilst services have emerged over the last decade as the dominant sector.

During 1990-2004, employment in Sri Lanka grew by 2.3 per cent per annum, while the labour force grew at the rate of 1.5 per cent per annum. The growth advantage in favour of employment contributed to the decline in open unemployment during that period.

By 2016, Sri Lanka will make every effort to be a provider of globally employable, competitive human capital. Unemployment rate for young youth category (15 – 24) will be reduced from 22% of its current level to 9% by 2016. The key target is to generate 2.4 million gainful employments through private public and foreign job opportunities within the next six years.

- To accomplish this target National Employment policy which ensure the better fit between labour demand and supply and employment sourcing and delivery system, will be implemented.
- Completion and implementation of National Policy on Youth will be prioritised. To increase the employment opportunities for youth ‘Yovun Diriya’ programme and Community Development Assistance programme will be introduce.

- A recent survey of enterprises in both the urban and rural sectors found that they were hampered by poor-quality infrastructure (especially energy and transport) and cost of/limited-access to finance. These constraints also detract from the attractiveness of Sri Lanka as an investment location to external investors, when compared with other countries such as Malaysia and China. Therefore a systematic policy framework to upgrade infrastructure facilities, especially in rural areas, will be formulated for increasing employment through private investment.
- Employment opportunities will be created for disable persons by ensuring reserve of 3 percent of employment in large enterprises for disables.

Concentrating employment in informal sector: While the reduction in open unemployment is to be welcomed, there has been a disconcertingly steady movement of economic activity from the formal to the informal sector, which now accounts for nearly 70% of employment in Sri Lanka. The impact of the expansion in the informal economy can be seen in the increase in non-formal employment in the same period, and more than a third of the labour force is in casual, less secure employment. This is because the informal economy does not comply with formal procedures such as registration, and workers are typically outside the scope of legislation and regulatory institutions. The informal sector generally does not comply with social protection regulations for workers, working conditions tend to be unsafe and unhealthy, with workers having low levels of skills, low or irregular incomes, and long working hours. Access to information, markets, finance, training and technology is limited. Due to the generally lower visibility of this sector, economic and social policy has not taken into consideration the nature and extent of the informal economy in formulating strategies and interventions.

- Access to finance remains one of the most critical problems of operating in the informal sector. As many people in this sector are likely to be from lower-income groups, schemes of financial assistance, including income transfer programmes will be adjusted to accommodate entrepreneurial activity.
- SME and Rural Banks will be encouraged to engage in concessional lending such as daily loans and bonded credit for the assistance of pavement vendors and traders who cannot otherwise access formal lending schemes of high-street banks.
- Labour oriented methods of development will be encouraged where practicable, especially in infrastructure development in rural areas.

Unducing Underemployment: A person is considered underemployed if he is in employment for less than the normal duration (at least one hour during the reference week) and is seeking, or would accept, additional work for a longer duration. Underemployment in Sri Lanka is currently estimated to affect 21.6 of the labour force, an increase from the previous CFS level in 1996/97 of 17.5 per cent;

Production Sector	1996/97(a)			2003/04(b)		
	Male	Female	Both	Male	Female	Both
Agriculture	28.3	36.4	31.2	33.4	36.7	34.5
Industry	20.3	18.6	19.5	18.4	22.3	20.2
Services	21.1	16.8	20.0	18.0	17.3	17.8
All	23.5	25.6	24.2	23.0	25.4	23.7

Source: CFS Central Bank of Sri Lanka

(a) Excluding Northern and Eastern provinces
(b) Excluding Killinochchi, Mannar and Mullaitivu districts

underemployment in the Agriculture sector demonstrated an increase over time, and was significantly higher than overall figures, with 34.5 per cent of those employed in the sector considered as being underemployed. This explains to some extent the declining productivity of the Sri Lankan labour force, especially those engaged in Agriculture.

Underemployment was higher for women in every sector except services, highlighting the gap that existed in providing employment opportunities for women.

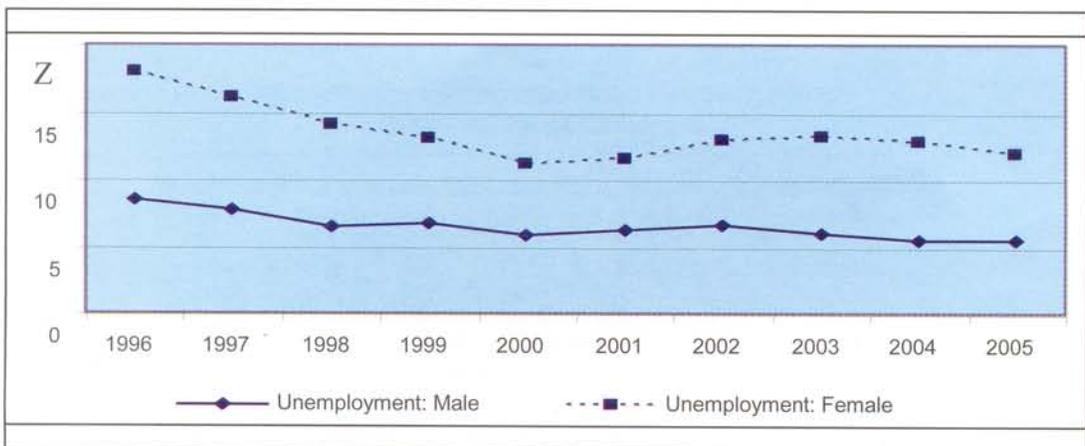
- Implement policies to make temporary, flexible or extra work possible.
- The most effective means of reducing underemployment is the generation of new employment through economic expansion. Such opportunities will not only absorb excess labour of the underemployed, but will also enable the employed to progressively access jobs with a more decent quality of work.

Private Sector as an employment source: The public sector is still the preferred avenue of employment for youth, with the preference being conspicuous among college-graduates educated in the national languages. The perceived ‘social status’ attached to public sector employment, employment security and social security benefits upon retirement are among its attractions. However, the public sector in Sri Lanka is proportionately the largest in Asia (an average of 3.9 public servants per 100 populations, as compared to 2.6 in Asia), and this has reduced its effectiveness while increasing the financial strain on the State.

- The focus of employment creation must therefore be shifted to the private sector, both formal and informal by providing necessary training and skills.
- In addition social attitude of youth towards self employment and private sector employment will be changed by providing tools, equipment, training and finance. Communities are also be encouraged to support self employment venture of youth.
- To secure the self employment schemes long term social security and safeguards will be introduce.

Promoting quality and productive employment for women: Sri Lankan women have a comparatively better status than women in many other developing countries but have yet to achieve gender equality and empowerment in consonance with international norms. A gender analysis of the labour force participation rate indicates that the participation of women in the labour force has been less than half that of men in the recent past. Especially in the 25-49 age group, the participation rate of males is in excess of 95 per cent, while the comparable rate for women is less than 50 per cent. This is also confirmed by unemployment data: while overall unemployment levels have decreased rapidly and are currently at single-digit levels, the unemployment rate for women still remains at more than double that of men.

Unemployment (Male/Female) as a percentage of the labour force



Source: Annual Report of the Central Bank of Sri Lanka, various years

The majority of women work in the informal sector; 35 per cent of women work in agriculture and the majority are unpaid family workers. These factors indicate that, even where employed, women tend to be engaged in work that is less secure, and less rewarding, as employment in agriculture has been shown to have the lowest level of earnings amongst all workers.

- Setting up of handicraft villages through financial and other grants will be encouraged.
- Strengthening of the regulatory and operational function of the Sri Lanka Foreign Employment Bureau will provide secure foreign employment for women.
- It is clear that in future the supply of labour can only be increased by the creation of more opportunities for employment for women, as the labour force participation of men is almost at saturation level; creation of job opportunities for women will be prioritised in development projects.

Realizing potential in Micro, small and medium size enterprises (MSMEs): MSMEs are the backbone of the economy. Due to relatively low investment requirements, they offer enormous potential to contribute to regionally balanced growth and to generate employment where it is most needed. Yet, this potential is insufficiently realized. Investment levels remain low and opportunities are not made use of. The main reasons lie in the business environment, which does not adequately facilitate enterprise start-up and growth such as limited access to markets due to weak infrastructure, a relatively high regulatory burden and inefficient application of regulations, weak business networks which limit links to large subcontractors and buyers, and inadequate financial services, including credit, as well as business development services, such as provision of training and information. Informality limits MSMEs potential for development as they cannot enter into formal contracts and cannot access certain services. Cultural factors also have a strong effect on the start-up and growth of MSMEs. Many youth hold negative attitudes to business, considering it an option of last resort rather than a valued way to better their own and their communities' lives.

- Steps to promote more positive attitudes towards entrepreneurship are already being taken through the introduction of entrepreneurship in secondary schools curricula and various vocational and technical training institutes. This is fundamental to the development of an enterprise culture.
- A positive view of MSMEs will be projected through communication campaigns by the Government, chambers of business in the private sector, and the media, in order to create a culture that values and encourages enterprise.
- MSMEs generating a significant number of direct or indirect employments will benefit from the waiver of duty on equipment and technology, and other concessions.
- Regulations that affect MSMEs will also be reviewed, with a view to simplifying procedures and encouraging MSMEs to enter formal sector.
- Enable returnee migrant workers to utilize their duty free allowance for purchase of equipment for self employment.

Managing labour migration: The share of skilled migrant workers has continued to decline despite stated intentions to the contrary. In 2005 more than 70 per cent of migrant workers were in the unskilled/domestic worker category, with lower-earning. Nearly 60 per cent of migrants were female, although the adverse social effects of (mostly married) females migrating for employment are well-documented. There is also the need to ensure the development and welfare of migrant workers and their families, and to ensure that returnee migrant workers are able to enter into productive economic activity on their return to Sri Lanka.

- Therefore, the focus of policy in this sector will be aimed at ensuring skilled, safe migration.
- Ensure the development and welfare of migrant workers and their families and to ensure that returnee migrant workers are able to enter into productive economic activity on their return to Sri Lanka.

- A special social protection scheme for returnee migrant workers has been launched by the Ministry of Labour and the SLBFE. As a part of this project, information on every family of each migrant worker will be gathered and maintained in order to provide support services to these families.
- The SLBFE will focus obtaining foreign employment opportunities in areas such as nursing, shipping, computer science, teaching, and other higher skilled occupations, by entering into bi-lateral agreements with labour receiving nations.
- Institutions will be established to provide internationally recognized qualifications in these areas.
- A low interest housing loan scheme and a special housing scheme is also under consideration; where 30 per cent of the funds will be strengthened by the Government, to motivate migrant workers to generate savings .
- It is also planned to strengthen the National Foreign Employment Advisory Council (NFAC) as an advisory body with the participation of lead ministries and all stakeholders to ensure that the development of this sector is carried out in a systematic and comprehensive manner.

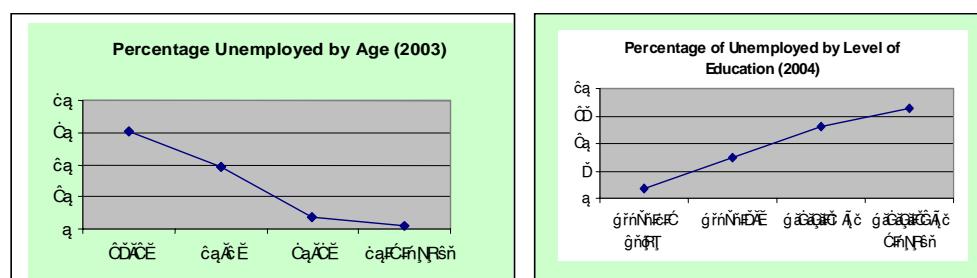
11.4.2 Skills Development and Labour Productivity

Due primarily to a policy of free education since independence, the educational attainment of the labour force in Sri Lanka is higher than that of most other developing countries. Nearly 17 per cent of those employed have secondary school leaving qualifications of GCE Ordinary Level, and a further 14 per cent have qualifications of GCE Advanced level and above. In addition to a sound education system, a nationally accepted policy and framework developed by a Presidential Task force for delivery of Tertiary Education and Vocational Training (TEVT), together with a comprehensive action plan, is already in place. The Tertiary and Vocational Education Commission (TVEC) is in the process of improving the quality and relevance of training by the development of national skill standards; and corresponding curricula, which are linked to the National Vocational Qualification (NVQ) Framework. These systems are linked to ‘Jobsnet’, the national job-placement mechanism, in order to obtain information on “skill consumers” of trainees in order to continuously improve the demand-supply orientation of TEVT.

The issues that need to be addressed in this area are highlighted below.

Matching Labour Demand and Supply: Despite these positive developments, there is a mismatch between labour demand and supply in both domestic and foreign labour markets. This is particularly so in relation to youth, as unemployment levels tend to be highest among those in the age group 19-25 years, and are as high as 28 percent of that age group. Unemployment also rises with education, being highest among those with post-secondary level qualifications. Given that these youth are generally new entrants into the labour market, the need to facilitate first time job entry into the labour market.

Unemployment by Age and Education



Source: Compiled from the Annual Report (2005), Central Bank of Sri Lanka

Especially among the more educated and relatively more affluent youth, the problem of “voluntary unemployment” exists, implying a conscious decision to wait for a job that matches personal preferences and career expectations instead of taking up an existing and often well-paid employment offer: 71 percent of G.C.E.(A/L) & above qualified persons have searched for work for more than 12 months. Negative perceptions towards certain kinds of jobs involving manual labour, gender stereotypes concerning vocations, a general rejection of entrepreneurship and self-employment, high aspirations created by access to higher employment, and the perceived prestige and security of public sector employment, all ‘artificially’ reduce available employment prospects. This is particularly acute for rural unemployed youth, nearly 14 per cent of whom believed that no suitable work was available, and therefore did not actively seek employment.

- Education is the first step towards decent work and productive and responsible lives for young people. It is not just the level but the quality and relevance of education and training that is important.
- Improving the university education-to-work transition requires adjustments both in supply and in demand. A National Action Plan for Youth and the Youth Employment Network (YEN) will be implemented to provide an integrated framework to overcome this deficit.
- The National Action Plan for Youth recognizes the need for specific measures to create employment for different groups of youth, such as those in the plantation sector or rural areas.
- Competence in English has emerged as a critical issue affecting employability, and the policy of the government is to systematically improve the knowledge of English at all levels of education during the next ten years.
- Facilities in rural schools will also be improved under this program, by improving information technology and establishing language laboratories.
- The nationally integrated technical education and vocational training (TEVT) framework and creation of nurturing environment conducive for the development of young entrepreneurs with access to education, skills training and capacity building will be supported to continuously increase opportunities for TEVT
- Other strategies that will be implemented include the improvement of training and access to information technology, developing comprehensive skill in national languages and in English at primary and secondary level and improvements to school management.
- Strengthen quality and relevance of TEVT programs by regularly updating curricula of the training programs, enhancing performance monitoring of training programs, and strengthening public private partnerships.

Box 2

The ‘Queuing hypothesis’, linked to public sector employment and pay policies, explains that in well functioning labor markets, public sector workers have lower pay than their private sector counterparts in order to compensate for the greater stability, attractive benefits, lower work effort and prestige of their jobs. In Sri Lanka however, public servants are deemed to have, on average, all of the above benefits as well as higher pay. As a result, labor market entrants have an incentive to wait for such attractive job openings in the public sector, with most of them choosing to remain inactive instead of taking available jobs outside the public sector. The Government’s recurring tendency of providing employment opportunities to the unemployed is seen as the main reason for job seekers to remain inactive.

Source: International Labour Organisation (2005) Labour Market Skills Mismatch (Jobsnet-ILO Project), ILO, Colombo.

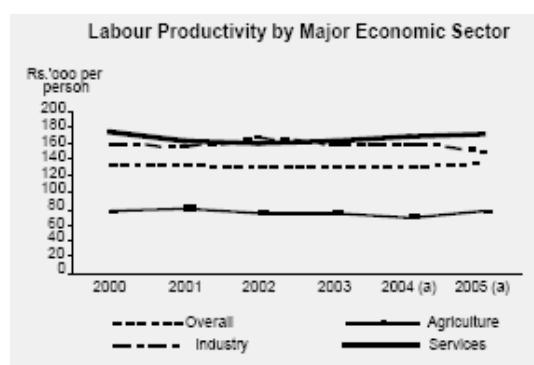
These strategies will be carried out by the relevant Ministry with input from the MLRFE.

Establishing Labour Market Information (LMI) system: Careful planning in terms of the manpower, and skills required by the labour market is central to the successful implementation of many of these policies. A prerequisite is the development of a LMI system linked to the national job placement mechanism Jobsnet, which can produce data disaggregated by gender and region.

- The LMI system will be developed through a strong partnership between the private and the public sectors, with the participation of all stakeholders.
- The basis for this partnership has been created with the establishment of ‘Jobs Net’, the national employment sourcing and delivery system operated as a public-private partnership, and this will be strengthened to provide an efficient interface for job seekers at all levels and prospective employers.
- In addition, Employment Assistance Centres established at Divisional Secretariats will provide an interface between members of Job Clubs established at village level and employers, by disseminating information and providing guidance.

Increasing competitiveness and productivity of the labour force in a globalise context: All sectors of economic activity in Sri Lanka suffer from low levels of productivity growth, and have fluctuated markedly in all sectors. This has affected Sri Lanka’s competitiveness globally, and it has slid from being ranked 68th in the world in 2003 on the Competitiveness Index to 73 in 2004, and to 98 in 2005.

Percentage change in Labour Productivity



Source: Annual Report (2005), Central Bank of Sri Lanka.

Low productivity affects both the public and the private sector. In the public sector outdated procedures and lack of user friendliness has eroded the position of the public sector as the facilitator of economic development. For example, a World Bank survey has found that an entrepreneur starting a business in Sri Lanka must complete eight procedures and face a high administration cost, and that the process will take on average 50 days to be completed (World Bank, 2005); this is far higher than countries enjoying rapid economic growth such as Ireland (4 procedures, low administration cost and 24 days).

- As an initial step towards addressing this issue, implementation of Public and Private Components of National Productivity Policy will be implemented. The Policy aims to achieve an average annual productivity growth of at least 5 per cent in the next ten years.
- Other initiatives include the development of benchmarking systems for various industries using schemes adapted for Sri Lanka, with tripartite participation.

- Increasing the productivity of the public sector requires different initiatives such as a cadre review of all executive and non executive posts, a performance based incentive system for public servants, creation of a senior management group in each Department consisting of senior officers with high managerial ability and professional skill to implement State policy, promote more efficient decision making, and to depoliticize public institutions, the allocation of resources to Ministries and Departments on the basis of implementing policies and meeting sector targets, and the formulation of a Training Policy for the Public Sector.

Realizing the challenge of youth employment in conflict affected areas: There is an unfortunate generation of young people who were born and grew up in times of conflict. A large number of youth are facing life as refugees, orphans, displaced and disabled; as young widows and single mothers. As vulnerable people living in conflict areas, providing TEVT to these youth, and ensuring employment, is a difficult and sensitive issue. Most of these young people have missed the opportunity to obtain a sound education or learning a trade or skill due to reasons beyond their control.

- As an initial step to address this problem in conflict affected areas, an advanced technical college affiliated to the national system of TEVT, with Tamil medium courses will be established expeditiously. Improving the allocation of basic resources for educational institutions such as adequate staff and basic equipment, improving availability and quality of human resources, leadership development programmes and the promotion of entrepreneurship for these young people will be prioritised.
- Measures will also be taken to revitalize traditional industries of these areas, including agriculture and fisheries, with the intention of generating employment within these areas. The industrial sector in these areas will be re-established, by encouraging manufacturing units to locate there through a system of incentives and concessions.

11.4.3 Increase Flexibility of Labour Laws and Regulations

The legal provisions relating to labour and employment in Sri Lanka are complex and extensive. Some of these provisions were formulated more than half a century ago, and employers and workers agree that reforms are timely and necessary. However, a consensus on the nature and extent of these reforms has been difficult to achieve, and some reforms that were initiated, despite protests by workers or employers, have by and large been difficult to implement in practice. The major issues that need to be dealt with in this area are highlighted below.

Extending social protection to the informal sector: Although Sri Lanka has a well developed body of legislation relating to employment. In respect of the informal sector, such laws cannot be effectively enforced to their benefit. For instance, agricultural workers, especially female agricultural workers, undergo much hardship due to the lack of enforcement of benefits such as EPF and ETF payments, maternity benefits, and paid leave. In particular, the low level of access to any form of social security is a major cause for concern in this area.

- This deficit would be reduced if the variety of initiatives to provide social security, which have been taken over the years by diverse Ministries, would be made more coherent and integrated; however, it should be treated as an urgent matter of policy to provide access to some form of social security for all workers.

Increasing employment flexibility: A recent global survey has indicated that Sri Lanka ranks as a country with a high level of employment “rigidity” (IBRD/World Bank, 2005). The survey also found that countries with a high level of employment rigidity or regulation had less employment opportunities for women and youth, and that a larger portion of economic activity tended to shift to the informal sector where decent work is inherently more difficult to ensure.

- The focus of legal reform is to increase flexibility of operation while ensuring adequate safeguards for workers.
- Worker protection will be ensured by the acquisition and continuous upgrading of employable skills, rather than through a protectionist system of legislation, as the former operates due to market conditions, while the latter encourages evasion and deprives workers of protection.

Providing social security for unemployed: The system of social security in Sri Lanka combines several income transfer schemes with statutorily imposed ‘severance pay’ schemes and superannuation systems. The missing element is a system of unemployment benefits or unemployment insurance, to bridge the gap between these two components. The absence of a comprehensive system of unemployment insurance is seen as reducing the efficiency of the labour market as it restricts labour mobility; it is also a drawback in creating employment of quality within the formal economy, as employment tends to shift to the less secure informal sector to evade payment of statutory benefit.

- The National Labour Advisory Council (NLAC), which comprises the MLRFE, trade unions and representatives from employers, was expected to establish an Unemployment Benefit Insurance Scheme (UBIS), to provide income support and other benefits that promote employability of displaced workers. However, the funding of UBIS is need to be further discussed.

Concentrating the impact of ageing on labour force: The age structure of the population shows a shift towards the adult age intervals, with the proportion of children declining rapidly, due to a population growth rate of just over one percent. The aged population defined as those 65 years and above is on the increase, and has been estimated as 7% of the household population in 2001. This is projected to rise to 15 percent of the population by the year 2016. Ten percent of the elderly are also categorized as dependent.

- While the need for employment based social security is increasing, burden to the labour force and a possible labour scarcity in time to come will be considered; this is likely to be marked in sectors such as agriculture, because job seekers have demonstrated a disinclination to take up available employment in this sector.
- Other initiatives are to Increase compliance with EPF, ETF regulations and the recognition of occupational safety and health as a right of all workers.

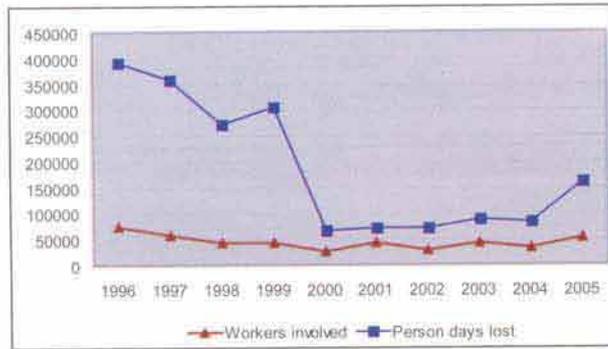
Combating Child Labour

- To address child labour holistically a number of broader policies will be adopted including achieving at least the minimum wages for parents will make it easier for parents to keep their children in school instead of sending them to work;
- Social protection for all which contributes towards preventing children from ending up in exploitative labour; and improving the standard of living for plantation workers would have an immediate effect on their children (who are generally more vulnerable to being employed as child domestics) by ensuring that they go to school instead of work.
- The initiative of the MLRFE to provide support programmes and safety nets for migrant workers will also ensure that children left behind are less vulnerable to be sexually exploited or forced to work, and this project will be progressively strengthened.
- Underpinning these efforts minimum age for employment legislation will be strictly enforced, especially in the informal sector, through the partnership of the law enforcement authorities, the social and welfare Ministries, and the MLFRE.
- Obtaining international assistance to pressurise terrorist groups to end child conscription and to provide suitable rehabilitation programs for child combatants will also be actively pursued

11.4.4 Increase Employer-employee Relations

The manifestation of industrial disputes in Sri Lanka, as indicated by the number of strikes and days lost due to strikes, has been steadily decreasing, which is a healthy sign for the economy. The number of strikes overall has decreased from 224 to 57 in the last decade. More importantly, the duration of such strikes has decreased as indicated by the number of person days lost. However, strikes in essential industries such as transport, port and health continue to be a concern.

Workers involved and person days lost due to strikes (1996-2005)



Source: Annual Report (various years), Central Bank of Sri Lanka

There are several issues that need to be addressed in ensuring a sound and productive industrial relation system.

Promoting industrial relations: When the relationship between employers and workers breaks down, recourse to the judicial system is inevitable. Although the system was intended to operate efficiently and expeditiously, that is no longer a reality. Due to the inordinate delays built-up within these systems, the resolution of disputes is a burden to both employers and workers, and may ultimately disrupt, rather than restore, industrial harmony.

- A comprehensive policy to amend the administration of these systems rather than to provide legal interventions will be considered.
- There is also a need to promote a less adversarial system of industrial relations for the mutual benefit of workers and employers. This approach is successfully practiced in many organisations, with both parties benefiting from the more cooperative approach.
- Other strategies are to introduce alternative dispute resolution mechanisms, such as mediation, to ensure that litigation serves as an avenue of last resort.

Prioritizing tri-partite consultation at national level: The Government remains committed to a tri-partite environment comprising the State, employers and workers and trade unions on labour policy. However, the absence of a formal tripartite mechanism to coordinate and determine policy at the national level, especially where labour and employment is affected by other policy initiatives, is a drawback in implementing crucial reforms. There has been little or no effort to coordinate the activities of the social partners and to provide them with a role in determining policy in this area at a national level.

- The NLAC will be reconstituted as an advisory body for policy making.
- In order to facilitate informed and productive discussion between the social partners on policy reform and implementation an efficient support structure will be created, and provision will be made for the representation of regional employer and workers organizations.
- Gender representation will also be ensured.

11.5 Targets to achieve by 2016

The strategies and actions outlined in this National Plan will be designed to achieve specific objectives in growth and development targets based on current and future indicators/targets.

Focus Area	Objective	Indicators/targets	
		2005	2016
Employment generation	Unemployment will be half the level as at 2005	7.7%	3.8%
	Female Unemployment will be half the level as at 2005	11.9%	5.9%
	Unemployment of those between the ages of 15-24 to be halved	22%	9%
	Employment in the informal sector will be no more than 50 per cent of all employment	71%	50%
Skills development and labour productivity	5% average annual growth in productivity during the next ten years in agriculture, industry and services (Rs.'000 per person)	Agri- 77.4 Indust - 152.2 Service-172.4	116 228 258
	Under-employment will be half the 2005 level	23%	11.5%
	Literacy in IT to be increased to 60% of the population	10%	60%
Labour laws and regulations	Have established a comprehensive structure of unemployment insurance for all		
	Litigation outstanding in the Labour Tribunals to be no more than 25% of 2005 levels	15,000 applications	3,750 applications
	Time taken to resolve Arbitrations and inquiries at the Termination Unit of the Labour Department to be halved from 2005 levels	14 months	6 months
Employer-employee relations	Person Days lost due to strikes will be reduced to one fourth of as at 2005	158,000	38,000
	Number of collective agreements being signed will be double the 2005 rate	35	70

11.6 Planning for Progress

It is no longer realistic to expect these gaps in development to be bridged automatically with economic progress; just as governments and international financial institutions have actively worked on policies to reduce budget deficits, it is now necessary to focus with equal deliberation on strategies to bridge these policy deficits.

Investment Plan to increase employability, productivity, and human dignity of labour

Strategies	2007 – 2009 Rs. ml	2010 – 2012 Rs. ml	2013 - 2016 Rs. ml	2007 - 2016 Rs. ml
Implement National Employment Policy (Man Power Planning)	150	200	100	450
Increase employability of Youth (Youth Corp, YEN)	3500	3200	3000	900
Create more opportunities for income generation for women (Kantha Diriya)	75			75
Promote foreign employment opportunities	40	60	60	160
Increase skilled migration	550	200	240	990
Ensure development and welfare of migrant workers and their families	475	525	525	1525
Regularise employment opportunities within the informal sector	100	105	120	325
Improve National Productivity	600	100	100	800
Revise available graduate programs to meet modern needs	500	1000	1500	3000
Implement Labour reforms consultatively	13	13	13	39
Improve enforcement function/capacity of Department of Labour	30	30	40	100
Ensure social security (Unemployment insurance)	450	400	350	1200
Improve Occupational Safety and Health	250	300	350	900
Improve dispute resolution mechanisms in the public sector	10			10
Increase compliance with EPF, ETF regulations	100			100
Total	6843	6123	6498	19374

12. Science and Technology

Science and Technology has played a crucial role in the economic development and social welfare of human society since the industrial revolution. The common factor of their growth in highly developed countries has been a massive investment in education, research and development.

The South Asian countries have identified Science and Technology as an important component of national development. Sri Lanka's gross domestic expenditure on research and development (GERD), at around 0.2% of GDP, compares with that of Pakistan and Nepal (0.2% and 0.3%, respectively), but lags behind India's impressive 1.1%; East Asian countries invest 1.5 - 2.5% of GDP in GERD. Sri Lanka also compares well with most South Asian countries in such statistics as the number of scientists and technologists per million of population and the number of women in higher education and R&D. However, because of the small size of the sector, inadequate facilities and resources, cumbersome procedures, lack of focus and direction, and the fact that the very best personnel have sought employment elsewhere, a critical mass of high quality scientists and technologists has not been achieved. Output therefore remains low, and available resources, are not always used optimally. Furthermore, growth in the S&T sector has been very slow, with many indicators remaining largely static over the past 10 years.

Sri Lanka's scientific research continues to be concentrated in agriculture and related fields. Even in this area, there is a shortage of scientists with post-graduate qualifications, particularly in emerging fields such as biotechnology. In fact, an important area in which Sri Lanka compares poorly with other major countries in the region is post-graduate education, particularly research-based higher education. This has serious implications for future human resource development in the field of science and technology.

Some of the key issues facing science and technology sector in Sri Lanka at present and for the immediate future are listed below.

12.1 Key Issues

- **A weak scientific infrastructure** insufficient for endogenous research and development; Lack of proper facilities for R&D institutes and universities; understaffed, poor remuneration packages, no social recognition etc.
- **Limited investment in scientific research**; the private sector input is limited and the government contributions are below requirement. Therefore, an inadequate allocation of GDP for S&T activities
- **Inadequate personnel in S&T activities**; the number of S&T personnel is far less than the critical mass required to generate productive application. As a result scientific and technological endeavour is handicapped.
- **Isolation from mainstream science** and communication at international level; lack of initiative to move to emerging areas such as ICT, pharmaceuticals and biotechnology, microelectronics, new materials etc.
- **Lack of a science culture** and low media support due to the low interaction between public institutions, universities and industry.
- **Lack of a system to generate and retain the type of innovative scientists and technologists** to bring about a strong science & technology capability; often the best migrate to other countries for the lack of better opportunities and better prospects of personal and professional development, hence resulting in a brain drain.

- **Lack of an education system, which promotes basic thinking and originality**; necessity for secondary and tertiary educators to establish knowledge coherence. The current A Level system encourages rote memorization within highly compartmentalized disciplines.
- **Inadequate development in indigenous technology**; our traditional systems of building, use of indigenous material, healthcare system our indigenous foods and food habits and methods of agriculture have considerable value.
- **Lack of political will to promote science and technology**; the government must have a clear, long-term vision of the role of S&T and its different players such as the government institutes, universities, private companies and the supportive mechanisms for science, technology and innovation.
- **Lack of interest in students to pursue science**; due to other professional categories such as computing, management, marketing, accountancy, etc., being more compelling and remunerative, a smaller number is now interested in pursuing a career in Science.

The Vision

“Sri Lanka to be a knowledge and science based, newly developed country by the year 2017, advancing towards rural poverty alleviation, with full computer literacy and penetration, excellent science education, and leading edge science and technology effectively transferred.”

12.2 Policy Framework

The policy framework consists of a set of policy goals; each one qualified by a set of strategies and consists of two broad sections:

Section A: Policy goals to develop the Science and Technology sector.

Section B: Policy goals to use Science and Technology inputs in national development.

Key interventions have been described for policy goals in Section A.

12.2.1 Section A

Section A: Policy goals to develop the Science and Technology sector

Policy Goal 1:

To foster a national science culture that effectively reaches every citizen of the country by

- Providing equal and adequate opportunities for all to acquire a basic education in science and its practical applications.
- Cultivating among the people of Sri Lanka an appreciation of the value of science, technology and research as an essential aspect of modern society.
- Encouraging a questioning mind and the application of scientific methodologies in everyday life.

Key Interventions

- Improvement and expansion of educational facilities; curriculum reform (Education sector)
- Science promotion and popularization programmes.

Policy Goal 2:

To build up, sustain and progressively increase the resource base of scientists and technologists necessary to respond to the developmental needs of the country by

- Improving the working and living conditions of the scientists and technologists
- Providing incentives that would help to retain recognized high calibre scientists and technologists and attract those who have gone abroad

- c. Establishing new institutions where necessary and upgrading the existing institutions to train scientists and technologists, develop international level research in advanced technologies, and provide technology to support the development of local industries.

Key Interventions

- Providing appropriate guidance and other incentive schemes for S&T personnel to internationally competitive levels.
- Use of expatriate Sri Lankan scientists and technologists as consultants in key areas crucial for national development.
- Vidatha programme.
- Institute of Nanotechnology.

Policy Goal 3:

To foster scientific and technological activities in all relevant fields and encourage the development of self-reliance in scientific and technological capability by

- a. Progressively increasing both public and private investment in science and technology (up to 1.5% of GDP by the year 2016)
- b. Developing, and strengthening centres of science and technology in the high priority sectors important for national development.
- c. Establishing where appropriate new centers of science and technology in the high priority areas important for national development.
- d. Improving the autonomy and flexibility of science and technology institutions.
- e. Promoting partnerships among industry, research institutes and higher educational institutions
- f. Promoting public-private partnerships in science and technology activities.

Key Interventions

- Increased funding for S&T institutions.
- Revise and simplify procurement procedures for supplies, consumables, and similar expenses for research purposes at government institutions, including universities.
- Provide incentives for entrepreneurial enterprises arising from industry - research - higher education partnerships.

Policy Goal 4:

Encourage research in fundamental and applied aspects of science and technology and development related to areas such as biotechnology, nanotechnology, new materials, energy, information & communication technology and electronics by:

- a. Providing the necessary funding, infrastructure, and training support.
- b. Encouraging joint venture partnerships to develop relevant technologies for establishment of industries.

Key Interventions

- Increased funding for S&T institutions.
- Provide incentives for entrepreneurial enterprises arising from industry - research - higher education partnerships.

Policy Goal 5:

To encourage utilization and further development of indigenous and local knowledge and technologies, by

- a. Establishing a database of available S&T based indigenous knowledge and practices.
- b. Researching into the acceptability of the available knowledge, and further developing the knowledge and technologies.
- c. Where appropriate, encouraging the development and practice of indigenous knowledge.
- d. Promoting research relating to the unique geographical, and geophysical aspects and the biodiversity of the country.

Key Interventions

- Incorporate Ayurvedic medicine into a modern scientific framework (Health sector).
- Increase research funding into the biodiversity, environment, and natural resources of Sri Lanka.

Policy Goal 6:

To encourage and reward science and technology based innovations and inventions and ensure the protection of intellectual property rights by

- a. Strengthening and enforcing the laws and regulations governing intellectual property rights.
- b. Assisting scientists and technologists to patent innovations.
- c. Further developing systems of national recognition and awards for successful inventions and innovations, as well as sponsoring or supporting institutions.
- d. Encouraging the provision of venture capital to individuals and organisations interested in converting inventions and innovations into commercial products.

Key Interventions

- Provide incentives for entrepreneurial enterprises arising from local innovations.

12.2.2 Section B

Policy Goal 7:

To recognize the key role of science and technology as an important and essential item in national development by

- a. Establishing an Inter-Ministerial Co-ordination Committee.
- b. Including scientists and technologists in the formulation of policies and plans, and decision-making at the highest levels.
- c. Integrating scientific and technological planning into the ministerial, sectorial and national level plans of the country.
- d. Involving scientists and technologists in monitoring and reviewing strategies, legislation, and institutional framework for science and technology in all relevant sectors.

Policy Goal 8:

To develop, select, acquire, and adapt scientific knowledge and technology necessary for the progressive modernization of all sectors so as to enhance the country's competitiveness in the world economy by

- a. Encouraging goal-oriented multi-disciplinary research
- b. Encouraging industries and other institutions to give greater emphasis to technology transfer and technology adaptation.

- c. Encouraging the up scaling of new processes and technologies to pilot and commercial scales
- d. Encouraging the development of technologies suitable for transfer to small and medium enterprises, and particularly enterprises at the village level.

Policy Goal 9:

To ensure the quality standards of all products and services to face the challenges of competitive global markets by

- a. Ensuring the activities of the institutions mandated to deal with standards (presently the SLSI), to maintain international quality standards of institutions, services, and management systems, and certify product quality through their own certification schemes.
- b. Ensuring the activities of the relevant accrediting bodies for laboratory accreditation.

Policy Goal 10:

To ensure sustainable development while conserving the natural resources of the country and protecting the environment, through the appropriate use of science and technology, by

- a. Promoting the acquisition, transfer, and development of clean technologies in Industry.
- b. Strengthening and implementing laws and regulations to protect the environment.
- c. Formulating transparent policies governing the use of non-renewable resources to ensure the long term needs of the country.

Policy Goal 11:

To encourage and strengthen co-operation in science and technology between Sri Lanka and other countries, with a view to building capacity in technologies which will have a positive impact on the economic development of the country, including important emerging technologies such as biotechnology, nanotechnology, new materials, energy, information & communication technology, and electronics, by:

- a. Establishing memoranda of understanding for cooperation in S&T activities with other nations, international organisations, academic, and R&D institutions, and relevant scientific and technical industries.
- b. Promote international cooperation in S&T activities, including initiation and conduct of joint programmes of study and R&D, with a view to building technological capacity.
- c. Developing joint ventures involving S&T, for socio-economic development.
- d. Establishing exchange programmes for senior scientists and technologists.
- e. Affording opportunities for young scientists and technologists to acquire knowledge in S&T as practiced in other countries.

Policy Goal 12:

Encourage the use of science and technology to mitigate and manage harmful effects of natural hazards and disasters, by

- a. Making people aware of the general scientific principles and underlying causes of natural hazards.
- b. Using S&T based methodology to identify and map hazard-prone areas, and to develop early warning systems.

- c. Developing local and national emergency plans to respond to natural disasters, including evacuation plans, provision of food, and ensuring the health of the affected population.
- d. Disseminating preliminary indications of hazardous occurrences, and information regarding general and specific harmful effects.

Policy Goal 13:

Develop capabilities in science and technology to strengthen national security by

- a. Use science and technology inputs to ensure security in water, food, shelter, energy and healthcare for the people.
- b. Fostering bilateral and multi-lateral links with other nations and international organisations, in areas such as defence technologies, technologies pertaining to control of and defence against chemical, biological, and nuclear weapons, hazardous waste management, and infectious disease control.
- c. Building human resource and infrastructure capacity in the above areas by local research and development, international collaboration, and training programmes.

12.3 Key Indicators

Science & Technology play an integral role in economic development. Economic development is measured in terms of GDP and other indicators. The role of S&T is measured in terms of input, output and impact indicators. The UNESCO and OECD have developed internationally accepted S&T indicators as R&D expenditure, R&D personnel, R&D outputs such as patent statistics, publications, international trade in high tech products, and trends in innovation etc. The S&T indicators have primarily been developed to guide S&T policy decisions and to justify national investment in S&T.

- Research & Development (R&D) Expenditure

The R & D Expenditure varies from country to country depending on the population and the income. When this expenditure is placed against the Gross Domestic Product (GDP), the importance a country places on its R & D effort is demonstrated. In the developed world the GDP contribution to R & D falls between 2-3% where as in the developing world it is often not even 1%. South Asia has devoted only 0.2% to 0.5% of GDP. This situation does not help as it only contributes to the ever widening gap between the developed and the developing nations.

The Sri Lankan situation is not far from the above. One of the key factors responsible for the decrease in the development in Science & Technology in our nation has been the poor investment towards research and development. While in most developed and developing countries, as demonstrated above there is an increase in the investment for R & D, in Sri Lanka the GERD/GDP ratio has decreased steadily. The percentage of GDP spent on R & D has decreased gradually from 0.3% in 1966 to 0.19% in 2000. Therefore, it is clear that we do not allocate even 0.2% of our total expenditure to R & D: agencies such as UNESCO have recommended that the minimum percentage of GDP that should be spent on R & D should be at least 1%.

- Research & Development (R&D) Personnel

The trend in the number of world researchers is similar to that of the financial investment. The developed world contains 70.8% of world researchers while the developing world consists of only 29.1%. Researchers per million inhabitants in the developed region are approximately ten times more than that of the developing nations.

Even though Asia accounts for 554.6 per million, this is mainly due to countries such as Japan and China. Sri Lanka on the other hand has accounted only for 191 researchers per million inhabitants in 2004. This figure again has remained static since 1996 (UNESCO, 2005).

Sri Lanka had a total of 5254 Scientists employed either in an R&D Institute or University. Of the 5254, 87% or 4569 are from the Universities and the other 13% or 685 are from the R&D Institutes. In addition, an estimated 1158 postgraduate students are involved in PhD, M.Phil and MD programmes. When considering the researchers per million inhabitants, scientists involved in full time research are taken into account. Researchers of R&D institutes are considered full time researchers whereas the University full time researchers are accounted, depending on the university and faculty; as a percentage of 10-20% of the total head count.

Of the full time researchers, 40.3% are degree holders while 25.6% had masters degrees (i.e., M.Phil. & M.Sc.) and 28.4% had Ph.Ds. This indicates that half of our critical mass does not possess adequate technical knowledge to engage in productive R&D activity.

In addition it must be borne in mind that the full time researchers are spread among 13 Universities and 19 R&D institutes, and that more than 60% of these R&D institutes are Agriculture based.

- **Research & Development (R&D) Outputs**

R&D outputs can be measured in terms of publications, patents and trends in innovation and technological innovation /high tech products. Globally, the R&D output barely differs from R&D input.

- **Publications**

While publications are not considered a significant activity in global economic terms, it is recognized as being of central importance to the scientific, intellectual and educational life of S&T personnel. As in every other aspect there is a noticeable gap in the publications between the developed and the developing nations.

In Sri Lanka the number of publications are measured in terms of publications appearing in international journals specifically the Science Citation Index. This would depict the local research base in terms of the world science. According to the National Surveys conducted by NSF in 2000 Sri Lanka published a total of 173 publications in 2003. This is a marginal contribution even to the publications of the developing nations.

- **Patent Statistics**

Patent statistics depict a bleak picture for the developing world. Even though the developing nations contribute up to 22% of the world GERD, they contribute only 7% of all patents granted by the United States Patent and Trademark office (USPTO). This is due to patents being indicative of a strong, mature, business environment.

As indicated in the NSF survey of 2000, the total number of patents granted in Sri Lanka from 1995 to 2001 was less than 230. The highest number was granted in 2000 with a total of 228. In 2001, the figure was 175. However, the total number of patents from Research Institutes accounted to only 7.7% during 1997–2000. Once again the Sri Lankan patent statistics are more bleak than the developing world figures.

- **International trade in high tech products and trends in innovation**

International trade in high tech products falls under broad categories of aerospace, armaments, chemistry, office equipment, electrical machinery, electronics-telecommunication, non-electrical machinery, pharmaceuticals and scientific instruments. At the global level access to new products and technologies is becoming increasingly difficult due to the intellectual property regimes. Furthermore, technological competition has resulted in protection of market and technology in developed countries whereby integration into new technologies for developing nations is becoming increasingly difficult. Sri Lanka contributes to

international trade in terms of garments, tea, rubber, cinnamon, and ceramics etc to name a few. Sri Lanka is recognized as a world leader in the manufacture of industrial solid rubber tyres. It has been revealed that the R&D institutes have 80 technological innovations, 19 new processes developed and 21 high tech products produced during the period 1997-2000, in terms of technological innovations in Sri Lanka.

12.4 Role of the Government

The main role of the government is in the formulation and implementation of policies to enhance science and technology capability in Sri Lanka, to give direction and focus by ensuring that our limited resources are used wisely and optimally, and to facilitate and direct the application of science and technology in national development. While policies and directions should be flexible enough to adapt to changing circumstances, it is especially important that they be followed as closely as possible through the period covered by the Plan.

The state's role in direct investment in S&T related commercial enterprises should be limited. However, most of the funding for research and development will necessarily come from the government, since the private sector in Sri Lanka is not yet prepared to make major investments in this area. The government must be both a producer of technologies suited to the economic needs of the country and a facilitator of technology dissemination and transfer, regardless of whether that technology is locally developed or imported. Coupled to its S&T policies must be economic policies designed to promote private sector participation in S&T activities and technology-intensive entrepreneurial enterprises, including public-private partnerships, leading to job creation and economic growth.

Finally, the enhancement of human resources through science education, technological training, and professional development is another area in which the government, including the university system, has an essential role to play.

12.5 Role of the Private Sector

The private sector plays a crucial but surprisingly invisible role in its contributions to the science and technology sector in Sri Lanka. A great deal of modern technology is obviously used by the private sector, most of it imported. Relatively little R&D is done in the private sector, and much of what is done is confidential; relatively few patents or publications emerge from company laboratories, and this contributes to the general impression that the private sector is not a major contributor to science and technology. The plantation sector makes an indirect contribution to R&D, particularly in tea and coconut, via the cess charged on tea and coconut exports.

The private sector exists to make profits, and any decision as to the optimum balance between importing technology or developing it locally will be made based on economic considerations. If Sri Lanka is to follow in the footsteps of other fast-developing Asian countries, the private sector will play an absolutely essential role. Over the next ten years, it is unlikely that the private sector will invest heavily in R&D, except in a few selected areas; its role will consist of investing in high-tech industries where the technology has already been made available, including partnerships and entrepreneurial enterprises. Its investments in human resources will also play an important role in employment in the S&T sector.

12.6 Investment Plan 2007-2016

Rs. Mn.

Major Intervention	2007-2009	2010-2012	2013-2016	Total Investment
1. Information Technology	75	100	150	325
2. Biotechnology	1388	775	50	2213
3. Food Science & Technology	345	446	1115	1906
4. Environmental Science & Technology	23	11	40	74
5. Electronics/ Telecommunication	250	358	850	1458
6. Mechanical, Civil & Manufacturing Engineering	2231	4375	5100	11706
7. Technology Management	1986	1012	200	3198
8. Technology Infrastructure	2208	2124	4000	8332
9. Education	507	97	50	654
10. Energy	140	210	400	750
11. Other Industrial R & D	287	20	25	332
Total	9440	9453	11860	30948

13. The Environment

Most human activities, irrespective of any sectoral distinction, have environmental implications. Therefore adequate measures to minimize possible environmental damage in the course of development need to be incorporated in all components of the national development programme for the benefit of present and future generations. This is in fact increasingly considered an essential element of development – one by which the quality of development itself is judged. Forests, wildlife, water, air, land and minerals are the key natural resources. The performance of the real sector is primarily dependent on materials and services provided by nature. Furthermore, some benefits of the environment sector extend beyond the national boundaries. A special feature of the sector is that many of the costs and benefits of activities having impacts on the environment are unrelated to observable prices in the market and hence may often require interventions other than market based measures.

Systematic planning for Environmental Management started with the National Conservation Strategy (NCS) process in 1982. The NCS was approved by the Cabinet of Ministers. An Environmental Action Plan (EAP) was prepared in 1990 on the initiative of the World Bank. These two documents were combined with the Sri Lanka Report to the 1992 UN Conference on Environment and Development (UNCED) to produce a comprehensive National Environmental Action Plan (NEAP). The main objective of the NEAP is to integrate environmental concerns into the development process. The NEAP first published in 1991 covered the period 1992-1996 and the first update published in 1993 covered the period 1995-1998. Caring for the Environment 2003-2007 – Path to Sustainable Development (CFE 2003-2007), the successor to the earlier NEAPs, was then developed and it seeks to take forward the environmental management initiatives of the past decade by introducing a National Environment Policy and strategies.

As stated in “Mahinda Chintana” the development of natural resources and environment would be in line with sustainable development principles which avoid costly remediation measures. Enhancement of rural economies with natural resources will contribute towards reduction of poverty related environmental degradation. In managing natural resources, regulatory approaches will be complemented by the introduction of market instruments that move individual decisions closer to what benefits society as a whole.

Vision of the Environment

“A land that is in harmony with nature” - Mahinda Chintana”

To build a land that is in harmony with nature, by ensuring that the choices that are made in response to the many challenges that confront the country embody the principles of environmental sustainability and do not impair the living conditions of the people (both present and future) and the biological diversity and productivity of the natural environment.

13.1 Key Areas of Environmental Sector

- Forest, wildlife and biodiversity
- Water Resources
- Mineral Resources
- Air Resources
- Land Resources
- Waste Management
- Marine Pollution Prevention

Targets to be Achieved

Object	2005	2010	2016
Proportion of land area covered by forest (%)	29	31	33
No. of protected areas			
Strict Nature Reserves	2	3	5
Nature Reserves	4	5	7
National Parks	19	22	25
Sanctuaries	65	70	75
Jungle corridors	0	2	5
Marine Reserves	0	2	5
Buffer zones	0	2	5
No. of Botanical gardens	3	8	10
No. of Wetlands of international importance	3	7	10
World Heritage sites			
Cultural	6	8	10
Natural	1	2	4
Environmentally sound waste disposal as a percentage of total waste generation			
M.C.s	1	75	100
U.C.s	30	75	100
P.S.s	50	100	100

International Conventions

Sri Lanka has ratified number of international conventions related to environment and natural resources. Some important areas in this regard are the convention of Biological Diversity, the Convention of International Trade in Endangered species of Wild Fauna and Flora, The Vienna Convention for the Protection of Ozone Layer from the Substances that deplete it, Montreal Protocol on Substances that deplete Ozone Layer, Basel Convention on the Control of Transboundary Movements of Hazardous waste and their disposal, United Nations Framework Convention on Climate Change, Amendment relating to the implementation of part XI of the United Nations Convention on the law of the Sea etc.

The areas covered in the Convention extend beyond national boundaries. Global combined efforts are required to protect and conserve the environment. Sri Lanka has therefore committed to implement various programmes to achieve the objectives and targets of these conventions.

13.2 Sub Sectors - Policies and Plans

13.2.1 Forest Resources

Forest resources have long been recognized for controlling soil erosion, increasing soil water recharge, conserving biodiversity and moderating the climate. The forests of the Wet Zone of Sri Lanka are particularly important in relation to these environmental roles. The deforestation rate during 80s to late 90s was averaged over 30,000 hectares due to the implementation of large scale development projects. At present the country's forest cover is 29 percent of the island's land area, covering home gardens, perennial crops such as coconut and rubber plantations. Approximately 85 percent of the natural forests are concentrated in the dry and intermediate zones.

In recent years, several activities have been commenced aiming at promoting conservation of forests. Increased attention is also paid to increasing timber production in home gardens and rubber and coconut plantations and improving timber products and technology. Also community participation has been recognized and practiced in management of natural forests.

Forest Resources Management Project is under the implementation island wide. The overall goal of the project is to increase the value and sustainability of the country's forests by creating an enabling

policy and governance framework for enhanced participation of local communities and other stakeholders in forest resource development and management. Also the Sri Lanka Australia Natural Resources Management Project contributes to poverty reduction through improved natural resource management.

Issues

- Growing threats to endemic and local species caused by deforestation and excessive logging.
- Depletion of the stock of timber in natural forests due to over exploitation.
- Increased incidence of forest encroachment.
- Lack of proper timber utilization and forest product technology

Development Objective: Sustainable management of our forest resources to ensure conservation for the protection of our environment and biodiversity, as well as sustainable commercial and aesthetic utilization to ensure maximum contribution to national income and wellbeing.

Policy Framework

In particular, the present policies of the forest resources seek to

- Conserve forests for posterity, with particular regard to biodiversity, soils, water and historical, cultural, religious and aesthetic values.
- Increase the tree cover and productivity of the forests to meet the needs of present and future generations for forest products and services.
- Enhance the contribution of forestry to the welfare of the rural population, and strengthen the national economy, with special attention paid to equity in economic development

Strategy

- **Development of Partnerships with all resource users**

Involvement of state agencies, forest-dependent people or resource users, farmers, rural communities, local forest industries, NGOs in managing and protecting the resource.

- **Promotion of Sustainable Land Use for State Lands**

Allocation and zoning of state forest land for conservation, multiple-use forestry, agro forestry and plantation forestry in order to establish a Permanent Forest Estate in line with environmental guidelines.

Development of Private Forests and Tree Resources

It has been proposed to promote home gardens, other agro forestry systems and plantation forest and managed according to environmental guidelines.

- **Development of Forest Products, Industries and Marketing**

Harvesting wood from state forest plantations according to management plans and environmental guidelines; Rationalization of felling and transport guidelines for trees on private lands.

- **Supporting Institutional Development**

Strengthening the management of protected forests, multiple use forests, and capacity of conducting prioritized research, systematic monitoring of all forest resources and law enforcement capacity.

Research and development to generate new technologies and management regimes to cope with increasing demand and changing patterns of supply of timber and other forest products.

- **Supporting inter-sectoral Linkages**

Enhance providing inputs for production, services, poverty alleviation, improvement of living standards, forward and backward linkages etc. are the main areas cover in this strategy.

Priority programmes and areas

- Biodiversity Conservation Programme
- Soil and Water Conservation Programme
- Multiple-Use Natural Forest Programme
- Home Gardens and Non-Forest Tree Resources Programme
- Forest Plantation Programme
- Non-Wood Forest Products Programme
- Policy and Legislation
- Human Resources Development
- Planning, Monitoring and Evaluation

13.2.2 Wild Life Resources

A greater part of the wildlife in the country is found in protected areas covering an extent of approximately 8,600 km². National reserves and sanctuaries are the major categories of the Protected Area System of Sri Lanka. National reserves are namely Strict Nature Reserves, Nature Reserves, National Parks, Jungle Corridors, Marine Reserves and Buffer zones. At present Sri Lanka has three Strict Nature Reserves, three Nature Reserves, fifty six Sanctuaries and fifteen National Parks. Most of the wildlife reserves are confined to the Dry Zone and amongst the reserves National Parks are the most important as they carrying a greater part of wildlife in the country.

Protected Area Management and Wildlife Conservation Project expect to conserve the nation's valuable natural resources and to preserve its wildlife biodiversity for the well being of the current and future generations. The project operates in the seven Protected Areas in the country.

Issues

- Ecological challenges due to invasive species, forest die back, water quality changes in wetlands.
- Socio-economic challenges due to increasing demand for land, execution of development projects, illegal encroachment, cattle grazing, illegal mining, poaching, collection of turtle eggs, extraction of non-timber forest products, firewood and bird nests collection, and human-elf elephant conflict.
- Institutional challenges such as lack of authority at field level, inadequate infrastructure, and inadequate funds for conservation activities.

Development objective and strategy: Sustainable management of wildlife resources to ensure conservation for the protection of our environment and biodiversity, as well as sustainable commercial and aesthetic utilization to ensure maximum contribution to national income and wellbeing.

Policy Framework

- To conserve wildlife resources, through protection, research, education, sustainable use and benefit sharing, for the benefit of present and future generation.
- To maintain ecological processes and life-sustaining systems, with particular regard to primary production, hydrological balance, nutrient cycles, and prevention of erosion, siltation, drought and flood.
- To manage all components of genetic diversity, as resources to improve crop plant and farm animals and to develop in a fair and equitable manner the new product and processes through bio-prospecting.

- To ensure sustainable use and equitable sharing of benefits, arising from the direct and indirect use of wildlife resources and ecosystems.
- To conserve native and endemic species and their habitats, so as to maintain the overall species richness and ecological integrity of the country.
- To encourage the development of biological repositories, for the purposes of conservation education and science.
- To encourage the private sector and communities to join as full partners in all aspects of the wildlife-conservation process.

Priority Areas

- Infrastructure management
- Develop new infrastructure
- Establishment of PA network
- Eco-tourism management
- Eco-development & outreach
- Conservation of endangered species
- Information and communication system
- Rehabilitation of roads
- Wildlife habitat enrichment
- New roads in PAs
- Training and research
- Conservation education and interpretation
- Protection & Law enforcement
- Elephant conservation

13.2.3 Biodiversity

Sri Lanka with its rich biological diversity is considered to be one of the biodiversity hotspots in the world. Despite its small size, the island has rich ecosystem diversity due to its varied topography and climate. Among the terrestrial ecosystems are forests varying from wet evergreen forest (both lowland and montane) to dry thorn forests, grasslands and a complex network of rivers, wetlands and freshwater bodies. These, along with the coastal and marine ecosystems (such as coral reefs, estuaries, lagoons, mangroves, sea grasses) constitute the natural ecosystems in the country. In addition, there are man made ecosystems related to agriculture and irrigation. The ecosystem diversity has resulted in high species diversity particularly of mammals, birds, reptiles, amphibians, freshwater fishes and several groups of invertebrate fauna. A similar high diversity is found among the flowering plants, ferns and fern allies, mosses, liverworts, lichens, fungi, algae and bacteria.

The island's biodiversity is being increasingly threatened by the increase in population and human activities.

Issues

- Increasing pressure due to the demand for land, removal of species from the wild, and competition between invasive species and indigenous species
- Climate change and increasing levels of pollution
- Lack of understanding of scientific management
- Undervaluation of biodiversity

- Lack of awareness and absence of inter-institutional coordination with regard to biodiversity
- The capacity of existing institutions for promotion of a holistic and integrated policy in biodiversity conservation has not been considered.
- Strategies and policies are not in place to establish conditions needed for compatibility between present use and the conservation of biodiversity, and sustainable use of its components.
- Inadequate attention on national policies on specific issues such as germplasm conservation, information management, *ex situ* conservation, biosafety, and access to genetic resources and benefit sharing

Policy Framework

Many strategies and action plans and policy statements are in existence reflecting the variety of currently available documents concerning conservation of biodiversity in Sri Lanka. A significant shortcoming is the absence of an integrated policy approach. At the highest level there has to be an over-arching policy framework, which must be strengthened with a legal framework.

Conservation has to be based on a set of activities which are part of a holistic, coordinated exercise securing financial resources both locally and globally.

- Ensuring the formulation of a policy for *ex-situ* conservation.
- Formulating a National Policy on Access to Genetic Resources and Benefit Sharing.
- Formulating well-defined projects to implement policy on access to genetic resources.
- Strengthening the capacity to undertake policy analysis studies, and the introduction of economic incentives for biodiversity conservation.
- Providing the mechanism to facilitate the integration of biodiversity indicators into policy monitoring, evaluation and predictive scenarios, to improve policy effectiveness in promoting conservation objectives.
- Formulating a clearly defined Biosafety Policy, and ensure the implementation of the National Biosafety Framework.
- Integrating as far as possible national policies, plans and programmes into the education system.

Priority Areas

- Proposed project on Ex-situ conservation
- Proposed project on Traditional Knowledge
- Proposed project on Agriculture Biodiversity
- Implementation of National Biosafety Framework
- Biosafety Clearing House mechanism
- Crop wild relatives project
- Invasive species project
- Animal Genetic Diversity project
- Biodiversity information management
- Bioprospecting , access to genetic resources and benefit sharing
- Establishment of Threatened Plant gardens

13.2.4 Water Resources

Sri Lanka is well-endowed with water resources. However, the monsoon climate and influence of central mountains brings substantial variability in the quantity of available water for consumption. Water

resources are subject to conflicting multiple demands such as domestic uses, agriculture, health and sanitation, inland fisheries, industries and hydropower generation.

Precipitation is the only source of water. It provides nearly 13 million hectare meters of water. It has been estimated that about 40 percent of the water goes as surface run off, about 20 percent infiltrates into the soil and replenishes soil moisture and ground water, and the balance is returned to the atmosphere as evaporation and transpiration. Of the surface run off (5.2 million hectare meters), a major part is used for irrigation and hydropower and 3.3 million hectare meters finally escape to the sea. Sri Lanka's water resources are fundamental to several other sectors of the economy, for example, agriculture, plantations, power generation and functioning of many industries and most fundamentally providing water for drinking and other domestic uses.

Besides rainfall, it is the condition of the watershed that determines both quantity of water during dry season and quality of the water. Sri Lanka has 103 river basins/watersheds covering 90 percent of the island and almost all the rivers originate from the central highlands. The conditions of the watersheds have continued to deteriorate through deforestation and poor land management which has resulted in reduced dry weather flow and increased sedimentation during rains. Sedimentation results in the silting of the reservoirs reducing their capacity.

Surface water quality degradation occurs in the rural areas due to excessive fertilizer and pesticide applications, silt and organic matter in runoff. The most severe water quality degradation is in the urban and industrial areas of the main cities. Groundwater quality is affected by human activity, mainly by over pumping which leads to saltwater intrusion into coastal aquifers, nitrate pollution by excessive fertilizer application, and disposal of sewage effluent from pit latrines and septic tanks.

Water resource management is directly linked with land use and management, forest conservation and agricultural development. Watersheds are severely degraded over wide areas, and affected by soil erosion, loss of fertility and landslides.

Issues

- Increasing dependency of livelihood of majority of people in the country on watershed resources and encroachment in the watersheds and unsustainable activities
- Non-recognition of the contribution made by the watersheds in national economy and other productive sectors
- Lack of research on watershed protection, conservation, management, traditional values, evaluation of service and inter-sectoral linkages.
- Depletion and non-recognition of the cultural and traditional practices related to water management
- Urban water supply services are becoming inadequate to meet the increasing demand from both domestic and non domestic sectors.
- Lack of adequate water supply retards opportunities for growth in industry and employment and increases the vulnerability to water borne diseases and public health hazards.
- Formulation of appropriate financing mechanisms is needed in the urban water supply sector to attract private sector financing.

Policy Framework

- Conserving, protecting, rehabilitating and sustainably managing the watersheds in a participatory manner while maintaining their environmental characteristics.
- Rationalizing investments through continued provision of funds in the national budget or otherwise on sustainable watershed management.

- To coordinating and monitoring all activities in watershed areas and securing a system of integrated management.

The following strategic measures will be taken for this purpose:

- Categorization of watersheds based on geological, hydrologic, geomorphologic, soil, land use and other characteristics.
- Ensuring that the development activities in the watersheds are incorporated with appropriate mitigatory measure
- Ensuring agricultural practices are according to the guidelines

Priority areas

- Classification of watersheds and implementation of appropriate Water shed management practices
- Rehabilitation, restoration, and conservation of degraded lands in the major watersheds

13.2.5 Mineral Resources

Sri Lanka is endowed with substantial reserves of industrial mineral resources including graphite, ilmenite, rutile, zircon, quartz, feldspar, clay, kaolin, apatite, silica sand, mica, calcite and dolomite (Mineral Map of Sri Lanka). Some of the industrial mineral such as graphite and silica sand are mainly exported and are regarded among the best in the world. Others are mainly used domestically to produce industrial commodities like ceramics, tiles, and plastics that are internationally renowned for their quality and design. The country is also renowned for its gems. The mineral industry contributes about 2% of the national GDP. For the year 2004, a growth rate of 5.1 percent was recorded in this sector.

Issues

- Lack of a comprehensive assessment of the country's mineral resources including detailed identification of locations, reserves, potentialities and problems associated with exploitation.
- The absence of such identification has placed a serious constraint on planned exploitation having due regard to all environmental issues.

Development Objective: To increase, improve and sustain the quantity, quality and unit value of output of the mineral resources in Sri Lanka while minimizing the adverse impacts on the environment.

Policy Framework

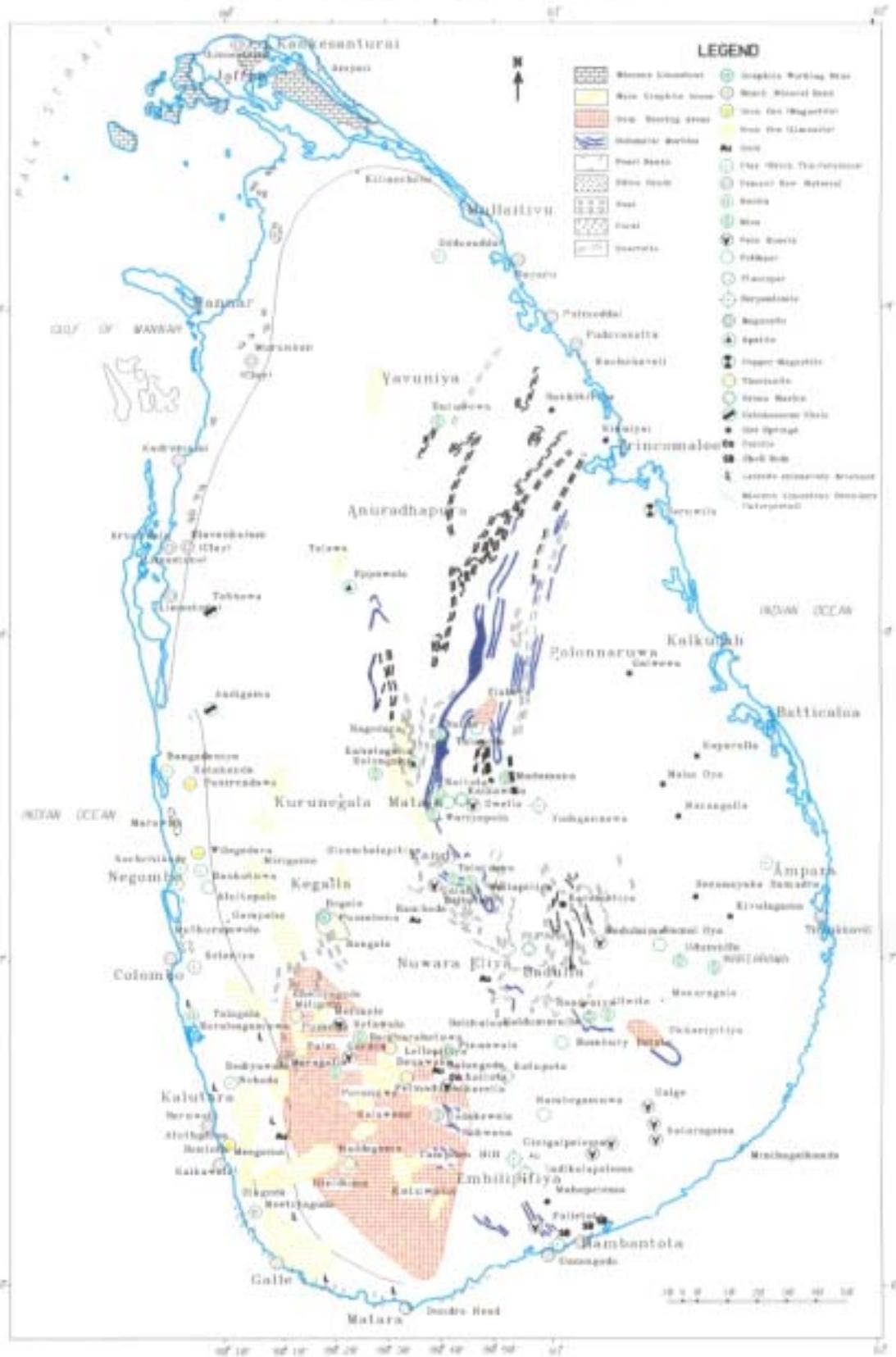
The strategy for the development of the natural resources industries includes:

- Integration of management of country's mineral resources into the overall development strategy of the country.
- Promotion of environmentally and socially acceptable and sustainable mining and exploitation practices.

Priority Areas

- Sustainable Development of Mineral Industries
- Restoration of quarrying and mining sites through rehabilitation bonds
- Conducting research on various aspects of minerals
 - a. Alternative material for limestone and sand
 - b. Availability, quantity and quality of minerals
 - c. Economic aspects of exploitation
- Preparation of guidelines and manuals for mining

Mineral Resources Map of Sri Lanka



13.2.6 Air Resources

Atmospheric pollution within the country is caused by the industries and transport sectors. Cities are the areas worst affected due to vehicle emissions. Vehicle emissions include suspended particulate matter, carbon dioxide, carbon monoxide, oxides of sulphur and nitrogen, and benzene. Ambient air in areas of heavy traffic congestion has been found to contain high levels of these pollutants, which are known to cause respiratory and other illnesses. Children are particularly sensitive to, and the worst affected by atmospheric pollution. The increasing dependency of power generation on thermal resources causes an additional pollution load.

Colombo is the most vulnerable city as a result of its high concentration of industries and vehicular traffic. The expected rapid annual growth of the industrial, energy and transport sectors is likely to aggravate the situation even further.

Issues

- Inadequate local capacity to deal with air quality management and air pollution reduction
- Insufficient funding requirements and mechanisms to ensure air quality improvement
- Lack of awareness of air pollution and its economic and health impacts.

Policy framework and Strategy

Current policies recognize the urgent need to reduce the emission of harmful air pollutants. For this purpose, the local capacity to deal with air quality management has to be built up. The following strategic measures will be taken:

- Developing a coordinating body for all air quality improvement and management activities with stakeholder partnership
- Implementation of air quality regulatory programmes in association of the stakeholders
- Apply economic instruments for demand management of road transport.
- Adopting measures to reduce the fuel consumption in the transport sector.
- The introduction of appropriate pollution abatement technologies
- Enforcing regulations on vehicle emissions.
- Imposing environmental standards on the import of used motor vehicles and engines
- Meeting funding requirements and setting up mechanisms for air quality improvement

Priority areas and programmes

- Implementation of regulations pertaining to vehicle emissions, fuel standards, and vehicle import standards
- Air pollution prevention through enhanced public awareness and carrying out health impact assessments
- Investigation of feasibility of mass transport system for the Colombo area.
- Promotion of environmentally friendly transport options

13.2.7 Land Resources

Sri Lanka has a total land area of 6.5 million hectares of which approximately 96 percent comprise land and 4 percent water. Agricultural land, forest and woodlands, homesteads, sparsely use crop lands and scrub-lands are the major types of land use systems in Sri Lanka.

Table: Distribution of land use types in Sri Lanka

Land use type	Share of total (%)	Area: Mn Ha
Agricultural	25	1.6
Forests and woodlands	27.1	1.7
Homesteads	11.9	0.78
Scrub-lands	7.7	0.5
Sparsely use croplands	19.6	1.2
Others(including inland waters)	8.7	0.57
Total land area	100	6.5

Land degradation has been identified as the major environmental issue in relating to land resources. Land degradation is the temporary or permanent lowering of the productive capacity of the land while natural and human activities have aggravated it.

Increasing demand of land for agriculture, industry, transport, settlements and other economic activities have inevitably resulted misuse and degradation of land. This degradation is evident with heavy soil losses, high sediment yield, and decline in soil fertility, salinisation and the marginalization of agricultural land. Significant land degradation began with the commercial plantation agriculture and deforestation. Land degradation in the Mahaweli catchment has resulted in siltation of the reservoirs. Deforestation in the watersheds in most village tanks for cultivation and encroachment had led to the drying up of small tanks.

The major contribution to land degradation is from soil erosion in upland areas and off-site damage in downstream areas. In addition, over exploitation of ground water, salinisation, water logging and water pollution are other contributing factors. According to Global assessment of Soil Degradation (GLASOD) about 50 percent of land in Sri Lanka is degraded. The area affected by soil fertility decline is 61 percent of the total agricultural land. (1.6 million ha). Declining crop yields due to loss of soil fertility and sedimentation in reservoirs is the major outcome of land degradation.

Issues

- Under-utilization of land
- Lack of awareness on land degradation among the poverty stricken farmers
- High demand for agricultural land due to lack of alternative income generating opportunities in other sectors
- Insecurity of tenure which hinders farmer interest in soil protection
- Inadequate capacity of government organizations to implement a systematic programme on conservation

Development objective

Reduce land degradation and thus restore land productivity, and thus uplift the living condition of the people.

Policy framework and strategy

- Land as a resource, will be subject to rational use for attaining a high quality of life, equity and ecological sustainability.
- A significant proportion of land will be set apart for nature and its conservation.
- The use of all existing forest lands and forestry areas will be guided by forestry and biodiversity conservation principle.
- Lands above 1500 meters will come under special protection.

- The reservations of all natural and man-made water-courses and sources whether private or state, will be demarcated and protected with appropriate conservation measures.

The following strategic actions will be taken:

- Identification and protection of highly environmentally sensitive areas.
- Lands already utilized will be allowed to be used with appropriate conservation measures
- All unutilized lands less than 60 ° slope should undergo land use categorization to determine their use. All unutilized lands over 100 ° slope should be under permanent forestry, grass.
- Natural forests, which have high biological and hydrological value, will be strictly conserved as conservation forests. Other forests will be allocated for regulated multiple use production forestry.
- Strengthening the activities of CEPOM (Committees on Environmental Policy and Management) and CIEDP (Committee on Integrating Environment and Development)
- Establishing formalized coordination mechanisms between the national level agencies and the provincial and local level agencies to deal with land degradation issues
- Active community participation in policy and planning activities
- Adaptation of integrated management approach to the management of land resources
- Promotion of active stakeholder participation in planning, implementation and monitoring and evaluation in place of command and control approach in the management of land resources
- Mainstreaming poverty alleviation into the national development agenda and mitigating the effects of drought

Priority areas and programmes

1. integrated management of upper watersheds
2. rehabilitation of degraded agricultural lands
3. protection of streams and stream banks
4. protecting springs and water sprouts
5. conservation of reservoir reservations
6. reclamation of problem soils (water logging, salinity, acidity)
7. sustainable ground water management
8. establishment of drought early warning system
9. strengthening drought relief systems
10. strengthening rain water harvesting systems
11. promotion of sustainable agriculture
12. strengthening the policy framework
13. reviewing land related laws
14. enhancement of institutional capacity
15. promotion of capacity building of land users and other stakeholders
16. development and transfer of appropriate technology
17. establishment of a land information system and promotion of education and public awareness

13.2.8 Waste Management

Unsanitary disposal of solid waste has become a critical environmental problem particularly in more urbanized areas in Sri Lanka. The rate of generation of solid waste is also increasing with the

increased population, industrialization and changes of the lifestyles of the people. The 311 Local Authorities (LAs) are responsible for the collection and disposal of solid waste.

The average gross weight of waste collected per day by LAs is estimated at 2838 tons. This amount is only a small fraction of the total waste production. The MCs collect about 56 percent of the total collected waste while 30 percent is collected by PSs. Around 60 percent of the total waste collection is from the Western Province of which 76 percent is from Colombo District. Around 700 Tons (25 percent of the total waste) is collected by the Colombo Municipal Council. The per-capita collection of solid waste varies from 0.1 to 1.3 kg per day in MCs and UCs and from 0.01 to 0.97 kg in PSs. It is seen that per capita collection is positively correlated to the population density of LAs.

Issues

- Lack of appropriate and sustainable solid waste management systems
- Lack of leadership with good governance to ensure efficient waste management at local authority level with multi-sectoral partnerships

Development Objective: Management of the output of all waste products and their disposal in a manner that will cause minimum adverse impacts on the environment.

Policies and strategy:

- The approach to solid waste management will be based on the principle of waste avoidance, reduction, reuse, recycling and final disposal in an environmentally sound manner taken in that order. Furthermore, the use of hazardous material will be minimized wherever possible. Some of the options available such as composting, biogas generation, sanitary land filling, and safe incineration will be examined carefully and adopted depending on their suitability for the specific project.

Priority areas and Programmes

- Preparation and implementation of plans based on principles of integrated waste management systems and formulation of national policies embodying the relevant best practices.
- Development of alternative methods for waste management depending on the waste quantities and characteristics.
- Amendments to existing laws to facilitate public private investments in waste management to encourage public-private investments Development of proper infrastructure facilities for final disposal of waste.
- Research aimed at finding ways of waste reduction.
- Encourage recycling at domestic point sources. Organize a collection and transport system to help the recycling and reuse procedure.
- Develop a suitable market system for the recycled products and promotion of innovative business opportunities related to waste disposal
- Strict enforcement of existing laws related to waste disposal.
- Strengthening of capacities of the LAs including those concerned with revenue generation.
- establishment of integrated infrastructure facilities for waste disposal with LAs Provincial Councils and the Government involvement.
- Providing incentives to enhance financial and technical capacities of the LAs to successfully handle the waste management task.

13.2.9 Marine Pollution Prevention

Marine pollution caused both by marine and land based human activities has reportedly reached alarming proportions in the world. Industrial developments with increased population pressure worsen

the situation. With more than 60 percent of organized industries and over 65 percent of population confining to coastal belt of the island, Sri Lanka's position is similar to most other countries. Marine Pollution Prevention Authority (MPPA) is the regulatory body for the prevention of pollution of sea and for giving effect to related Conventions.

Development objective: Maintenance of a clean maritime environment conducive to healthy living, protection of plant and animal habitats and conduct of economic pursuits.

Policy Framework and Strategy

Maritime activities

- Strengthen Sri Lankan legal framework to complement adopted and adoptable strategies
- Provide room for adequate law enforcement while undertaking ratification of International Conventions as appropriate

Land Based activities

This is the most crucial area. Large quantities of pollutants are impacting near shore continental shelf. Frequent water quality testing is necessary. Policy framework is required to take stock of the issues i.e water quality testing

Strategies should adequately cover all measures related to marine pollution due to oil spills and discharges from the land.

- National Oil Spill Contingency Plan (NOSCOP) provides the response strategy, responsibilities, and fiscal mechanism in spill emergencies.
- Strengthen national response capability against oil spills
- Strengthen institutional capacity
- Initiate a collaborative mix of awareness enhancement programmes and law enforcement
- Pollution prevention, control and management of land based pollution
- Compliance with international conventions

13.3 Investment Plan – 2007-2016 (Rs.Mn.)

Major Intervention	2007-2009	2010-2012	2013-2016	Total Investment
Forest Conservation	3000	3500	4000	10500
Management of Wildlife Resources	1000	500	700	2200
Biodiversity Conservation	200	300	400	900
Water Resources	20	40	60	120
Mineral sector	100	150	200	450
Air Resources	100	50	60	210
Land degradation	10	30	40	80
Solid waste and pollution management	1000	800	200	2000
Botanical Gardens	100	150	200	450
Marine pollution prevention	1050	80	90	1220
Multilateral/bilateral environmental agreements	100	150	200	450
Total	6680	5750	5640	18580

Proposed funding source and Investment

Rs. Mn.

Major intervention	Donor	Public Private Partnership	Beneficiary Participation	Treasury	Total
Forest Conservation	5100	1600	600	3200	10500
Management of Wildlife Resources	1500	150	100	450	2200
Biodiversity Conservation	500	50	-	350	900
Water Resources	-	-	20	100	120
Mineral sector		130	300	20	450
Air Resources	150	-	30	30	210
Land Degradation	20	10	-	50	80
Solid waste, pollution management	1600	200		200	2000
Botanical Gardens	-	-	-	450	450
Marine Pollution Prevention	950	-	-	270	1220
Implementation of Multilateral/bilateral agreements	400	-	-	50	450
Total	10220	2140	1050	5170	18580

14. Public Administration Reforms

14.1 Introduction

The long term vision of the Government is establishing a productive and efficient, customer friendly, free of corrupt, transparent and accountable public service which will help to realize economic goals and, to ensure social justice and socio- economic stability.

The future strategy will be based on re-orientation of the public service to improve national competitiveness, to minimize procedural delays and structural inefficiencies in public institutions, and response to increasing customer expectations and demand for quality services. In this context, the Division will be the focal point of administrative machinery and development planning system.

14.2 The Development Context for Public Governance

Sri Lanka's development attainments are impressive. However reducing poverty, eliminating regional disparities and attaining peace remain continuing challenges. The growth performance has remained below what the country's human capital would warrant. The record of development achievements masks significant economic and social problems. The development challenges that public governance must address are:

- Strengthening fiscal performance and economic management towards enhancing the ability to fund economic and social development in peripheral areas.
- Bring about greater congruence between economic and social performance and the aspirations of the people, especially the vulnerable, so as to prevent their further marginalization from the governance of development.
- Reduce regional disparities in the provision of basic economic and social infrastructure and services that create low performing districts and pockets of under-served.
- Reduce poverty and unemployment that has in turn deprived the poor the ability to access to economic opportunities.

14.3 The Changing Policy Milieu

At the level of the Economy

- The establishment of a facilitative environment in which the private sector would be able to conduct their activities of investment, production and distribution efficiently;
- The effective functioning of a regulatory environment that would enable private sector to operate efficiently and ensure their social responsibility;
- The efficient supply of public infrastructure, goods and services required for the efficient functioning of the economy.

Inadequacies in the Public Administration System

- a. Weak public policy management.
- b. Reluctance to engage in horizontal consultation in decision making.
- c. Poor client orientation in the delivery of public services.
- d. Mismatch of emergent task demands with the available knowledge and competence of human resources.
- e. Absence of system-wide accountability and transparency in the conduct of government business.
- f. Outdated system and procedures unsuited to modern day demand for the effective flow of public business.
- g. Inefficient management of resources and low levels of productivity.

At the level of the Society

- Equity of access to goods and services;
- Ensuring the availability of opportunities for productive employment for those entering the labour force;
- Minimizing disparities in regard to economic opportunities, quality of life and the exercise of political rights as among the different spatial areas of the country.
- Non-discrimination amongst citizens.

At the level of the Polity

- The smooth functioning of the devolved political structure while ensuring the direct accountability of the constituent political institutions to the community whether at the national, provincial or local levels.
- The organization of the network of institutional arrangements to avoid overlapping and duplication of structures, authority and functions.
- Maximum transparency in the conduct of public functions.
- The assignment of persons with optimal competence to public institutions for the efficient discharge of functions assigned.

14.4 Policy Highlights

- **The Guidance Role**
This is about setting medium to long term directions for meeting the demands arising from the economy, society and polity. It requires the availability of a framework of national policies for such demands to be met within the framework of Sri Lanka's economic, social and political goals. Public policy management is complex being multi-sectoral, multi-level and holistic. Public policy management must ensure complementarity in actions as between sectors and levels.
- **The Facilitative Role**
This is about creating the institutional conditions which enable the active and optimal participation of the different stakeholders in economic and social activities. It also includes the institutional arrangements for the delivery of public goods and services. The facilitative role gains importance as the State moves away from the direct provision of all public goods and services and increasingly responsibilities are assigned to the private, non-governmental and community organizations. The national policy framework underpins the facilitative role.
- **The Regulatory Role**
This is about establishing a framework of rules in terms of who gets what, when and how for balancing competing demands of different stakeholders. The regulatory role would then address issues such as protection and promotion of consumer interests, management and conservation of the environment, ensuring labour conditions that non-exploitative, avoidance of market failure in the provision of essential goods and services, maintaining the stability of the financial system and its constituent institutions, and the protection of human rights and civil liberties of citizens.

14.5 New Design of the Administrative Support System

At the local level, the administrative support system should be designed to facilitate the optimal exercise of responsibility for local services so as to meaningfully make it accountable to the local community for the efficient delivery of services. This would include autonomy in respect of finances and personnel so as to allow assignment of widest possible responsibility for designing service deliveries.

At the provincial level, the administrative support system should be simple and minimal taking into account the role and functions in respect of service delivery at the Local Level. The core functions at the provincial level would be:

- Review of the plans and budgetary requirements for the delivery of services at the local level as presented by the Local Government Institutions.
- Mobilization of financial resources to meet such needs.
- Allocation of resources to meet competing needs of local service delivery jurisdictions so as to minimize inter-local disparities in the availability of public services.
- Provision of technical support to local service administrative systems for the efficient delivery of service.
- Facilitation of the provision of higher level service that require economies of scale and support service deliveries at the Local level. These would be set up as joint-local ventures and organized as cooperative service deliveries.

At the national level, the primary responsibility will be public policy management. It will be responsible for residual functions that by nature of their delivery implications cannot be disaggregated between provincial or local jurisdictions. The institutional structure at this level would be different and be comprised of:

- A limited number of Ministries or Clusters of Ministries responsible for policy formulation in the respective sector. The cadres in Ministries would have competency in public policy management.
- A re-vamped Cabinet Secretariat with a focus on inter-sectoral policy coordination.
- The set of agencies performing the public functions assigned to and remaining with the National Level.
- The group of enterprises managing activities of a commercial nature that cut across local and provincial jurisdictions.

14.6 Strategies and Actions

The development context, the changing policy milieu and the governance roles together delineate the trend and pattern of the future agenda of governance arrangements and administrative structures. However, it is important to note that such arrangements should not be seen as permanent structures as emerging economic, technological and social environment would lead to more relevant approaches to meeting such needs. There are several clusters of governance and administration change that need to be addressed.

14.6.1 Getting to Collaborative Government

Collaborative government would have two dimensions. The vertical dimension of collaborative government is underpinned by the clear demarcation of responsibility and authority between the three levels of governance, national, provincial and local. While the assignment of responsibilities between the three levels would usually follow the principle of subsidiarity, the result should be the elimination of overlapping in responsibilities and authority between the levels of governance. The operational focus at the three levels would be:

- The primary responsibility at the national level should be setting national policy. National policies apart from the subject content depending upon the specific area of services being addressed should also address the optimal participation of the different stakeholders in the economy, society and polity as would be relevant and provide for the necessary regulatory framework for balancing their competing interests and needs. This is in total contrast to an operational focus on the micro-management of economic and social life.

- The fundamental responsibility of the local level is the efficient management of the delivery of public services as would meet the specific needs of different communities and enhance their welfare. The assignment of authority and responsibility to the political institutions at the local level should promote accountability to the local communities for the manner in which services are delivered.
- The responsibility at the provincial level would then be the integrated management of service delivery programmes in creating regional development synergies. This involves the mobilization and allocation of resources and the provision of technical support for the delivery of services at the local level.

14.6.2 Cooperative Delivery of Public Services:

A key factor in regard to the ability of the public administration to move on to cooperative partnerships in service delivery is that it must always maintain an orientation and a focus on public interest. Additionally the public administration would require specific skills that would enable ensure public interest in cooperative arrangements for the delivery of public services. These are:

- Contract management skills
- Techniques of performance measurement
- Strategic planning skills
- Sensitivity to voice of the citizens

An initiative for cooperative service delivery would have to be grounded on the development of service delivery policies across and through all levels government. It will involve moving away from ad hoc solutions to service delivery issues to a systematic approach through study of the service delivery chain and the correction of inter-related issues that affect performance, access and cost of services in a coherent manner. Cooperative delivery of services is very much a governance issue and concern.

14.6.3 Efficient Public Financial Management

The key areas for reform in public spending will be the following.

- Fiscal Discipline
Improving budget estimation: This will involve improving budget planning and formulation through effective coordination of budget preparation. It will also involve eventually moving from present cash-based accounting towards accrual-based accounting. A third element will be deepening the process of setting expenditure ceilings.
- Strategic Allocation
Streamlining budgeting procedures: This will involve moving forward on the current work being done in regard to medium term budget programming and expenditure frameworks, integrating current and capital budgets, introduction of performance indicators for moving from a focus on inputs to outputs, and establishing complementarity between national, provincial and local level spending within sector ceilings.
- Good Operational Management
Improving fiscal transparency: This will involve improving financial reporting based upon better auditing and establishment of results-based reporting systems.

14.6.4 Creating Efficient Public Service

There are several areas of needed reform in improving the quality of the public service.

- Knowledge and Skills
The nature of roles and functions of governance and the ensuing public administration tasks will have a direct bearing on the competency profile of public sector employment. Therefore a first

step in the re-orientation of the public service would be to delineate specific competency profiles of public administration roles and functions. Indeed the skill requirements of public sector employment will increasingly become specialized rather than remain generic as half a decade ago. It is also important to note that the nature of tasks would also be changing as the context of the public administration changes.

- **Tenure of Positions in the Public Service**
The changing job content and competency profile of positions required for public administration task raises serious concerns regarding current notions of security and permanency. If the task content is changing it will be necessary to move on to new job positions. Implications for tenure would have to be worked out in the context of the needs of task performance as well as relevance of available competence for the tasks to be performed.
- **Selection and Recruitment**
The challenge of ensuring continued induction into the public service of persons with the required competency profiles and under increasingly time-bound tenures would have serious implications for the present arrangements for recruitment into the public service. The role and function of All-Island Services would require re-appraisal and appropriate modification. A specific issue that will need to be addressed in this regard is as to how a meaningful accountability relationship between such officers and the client organization that the officers are expected to serve could be established.
- **Remuneration and Compensation**
Remuneration and compensation in the public service has become the perennial issue in public personnel management. The issue of remuneration would seem to be clear in that it should in fact be approached from the imperatives of attracting and retaining the best possible talent in the public service as well as ensuring that the talent so inducted is maintained at optimal levels of performance. However the issue of remuneration has become the most contentious one in being approached from differing perceptions of equity.
- **Capability Development**
As the public service faces new and different challenges in task performance, developing the capability of public service personnel would have to be approached in radically different ways. The responsibility for training and development would seem to be diffused across the specific recruiting authority or the individual officer rather than the organization where the officer is deployed. As the patterns of induction and tenure in the public service change over time and public service performance becomes even more challenging it will be imperative that the public sector agencies become responsible for the training and development of their personnel.
- **Senior Management**
While the operational context of public administration would be subject to constant change and therefore renewal, the policy management function is one area of public administration responsibility that will have more continuity and need to have more continuity in order to ensure that task changes are set in medium to long term policy perspectives. Continuity and consistency in macro-policy making will be an important factor in facing up to the challenges of a dynamic policy milieu. The establishment of a senior management cadre competent in policy management constitutes an urgent and important need for moving on to public governance.
- **Scope and Responsibility for Public Personnel Management**
Public personnel management would have to move away from a generic and routine colonial 'establishments' function on to a dynamic human resource management one. Each public sector organization would then become responsible for ensuring the supply of personnel as required

for the performance of the public administration tasks it must undertake and deliver. Then the responsibility and authority for personnel management that is currently dispersed across numerous agencies should in the future rest with the specific organization in which the personnel are deployed and serve.

14.7 Managing Public Sector Performance

The performance assessment must be approached from the point of view of:

- Policy, specifying results to be achieved;
- Provision in terms of the specification and standards of services to be delivered; and,
- The client in terms of accessibility and availability, quantity and quality of services provided.

It will also be necessary to follow the institutional design of the public administration system in the design of a performance assessment system. Accordingly the performance assessment function would be located at the national, provincial and local levels. Performance assessment would necessarily and importantly take place at each agency. The focus of performance assessment at each level would necessarily take into account the public administration role and responsibilities to each level.

The methods of assessing performance will vary according to the institutional context for public administration. In this regard 'results' will cover following aspects of performance.

- Inputs, being resources used, the performance criterion being economy.
- Outputs, being the service provided, the performance criterion is efficiency.
- Outcome, being the purpose, the performance criterion is effectiveness.
- Process, being the manner in which inputs are procured, outputs are delivered and outcomes are achieved the performance criterion will be due procedures.

14.8 Towards a Reform Strategy

The framework for improving and strengthening the administrative system involves major change. The order of reform would vary according to its substance and scale. The design of the reform agenda and the approach to its implementation is as important as the substance of change as it will determine the success of the reform effort. The substance involves fundamentally different ways of implementing reform.

The reform programme can be designed and formulated at three levels.

- Comprehensive Reform
- Sectoral Reform
- Specialized Reform

However, the administrative reform agenda cannot be piecemeal and must add up to being coherent, holistic and sustained. Public administration reform has suffered by being fragmented and there is an urgent need to adopt an integrated approach. This does not mean centralizing administrative reform. The reform agenda should be embedded in the public governance system and find its relevance in being a dimension of the system itself and being driven by imperatives of accountability for performance of delivery.

The implementation of the reform programme would then require creating the widest possible consensus on the need for and importance of reform. The lessons of experience point towards several institutional imperatives for effective implementation of administrative reform.

- A focal point in the public administration system for the conceptualization, planning, sequencing, coordination and evaluation of the implementation of the reform agenda. Its locus within the political and administrative system should be able to evoke system-wide responses to the reform initiatives, as well as to obtain ready participation of the different administrative agencies where reform is needed.

- Establishing key drivers of reform, especially budgets, audits and human resources management.
- Total political support for advocacy, implementation and monitoring of the reform programme. Whatever the institutional arrangements, the programme will not become effectively operational unless political will at all levels back up reforms.
- Creating public awareness, interest and commitment for the reform programme.
- Periodic reporting on the progress of reforms and its dissemination amongst the political, public and bureaucratic stakeholders.
- Parliamentary oversight for public administration reform. This can take the form of tabling (half yearly) reports and feeding them into Parliamentary Consultative Committees as a regular item of their agendas.

Table 14.1: Investments in Public Administration Reforms

Rs. Mn.

Area	2007-2009	2010-2012	2013-2016	2007-2016
District and Divisional Administration	3,700	3,850	4,000	11,550
Anti-corruption	256	275	300	831
Promotion of Transparency and Accountability	1,700	1,850	2,000	5,550
Increase in Efficiency and Productivity	175	180	195	540
Total	5,831	6,155	6,495	18,481

15. The Development in the Conflict Affected Districts

15.1 Present Situation

The ongoing conflict has affected entire North East area of the country over little less than a quarter century in varying degrees while also imposing a heavy cost on the economy in the form of resources wasted and lost opportunities. However, its intensity is felt more in the North East region and the threatened villages where the poverty situation is more serious than in other parts of the country. In addition to the incidence of poverty and effects of conflict, it had to bear the brunt of Tsunami too. Thus the development efforts have to take into consideration all these three dimensions. The North and East Provinces cover eight districts namely, Jaffna, Killinochchi, Mullativu, Mannar, Vavuniya, Trincomalee, Batticaloa and Ampara. This represents about 15% of total land area of the country about 14% of the total population. This region contributed about 14% to the national output prior to the conflict and currently the contribution has come down to about 8%. In the provincial GDP, agricultural sector including fisheries and animal husbandry accounts for 32%, which is much above the national figure of 20%. Industries contribute about 15% and, the balance 53% is by the service sector.

The conflict during the last 23 years has resulted in the loss of over 65,000 lives, injuries to persons, disappearances and displacement of persons and destruction of social and economic infrastructure. It has destroyed the fabric of civil society in the North-East. The conflict has displaced over 1,000,000 persons and large numbers (estimates unconfirmed) of people have fled to foreign countries as refugees. Of the 200,000 internally displaced families, around 30,000 are widows. Also 300,000 children have been affected by the war, of which 50,000 are in the welfare centres. Together with the disabled, elderly and traumatized, these vulnerable sections form a special target group for resettlement and rehabilitation. However, so far the Government has been able to resettle only 100,000 internally displaced families in their original places or in new settlements.

On-going Flagship Projects in the North and East		
Project	Time Frame	Investment (Rs.Mn.)
•North East Community Restoration Project Phase II	2005-2008	4,300
•North East Emergency Rehabilitation Programme	2005-2008	3,980
•North East Irrigated Agriculture Project Phase II	2005-2010	8,114
•Conflict Affected Area Rehabilitation Programme	2004-2009	10,000
•North East Coastal Community Development Project	2005-2009	2,800
•North East Housing Reconstruction Programme	2005-2008	9,000

15.2 Policy Framework and Objectives

The current policies are designed to protect and resettle the displaced community and to reconstruct the economic, physical and social infrastructure with the objective of assuring sustained long term development in the North and East. The success of the resettlement effort depends on the maintenance of a conflict free environment where the internally displaced persons (IDP) and refugees can voluntarily resettle in their original homes or any alternative area of their choice.

Once resettled they are to be assured of

- Resumed access to basic infrastructure services
- Maintenance of political security and stability

- Discernible movement forward to achieve permanent peace and settlement
- presence of social and economic stability

15.2.1 Overall Objective

To develop North and East as a hospitable and attractive place and create an environment where people can live in freedom and pursue livelihoods of their choice, where peace and ethnic harmony prevail in a way that will permit rapid social and economic development..

15.2.2 Short and Medium-term Objectives

- a) Relief, resettlement, rehabilitation and reconciliation aimed at displaced persons host communities. This includes:
 - Security, protection, and human rights;
 - Land Mine clearing action;
 - Provision of alternative sustainable livelihoods;
 - Integration into and of communities;
 - Elimination of child labour.
 - Rehabilitation/reconstruction of productive assets
 - Providing sanitation and drinking water facilities;
 - Establishing income generating activities for the sustenance of the IDPS.
 - Achieving a sense of security and living with dignity in their resettled or relocated homes.
- b) Establishment of basic physical infrastructure and restoration of services to the communities.
 - Restoration of roads ,transport and communication facilities
 - Restoration of health ,education and vocationally relevant training services
 - Access to cultural heritages, places and amenities.
 - Conservation of environment, including protection of water resources, watersheds, forest areas and wildlife.
- c) Establishment of sound governance administration and service delivery arrangements.
 - Meeting immediate relief, resettlement, rehabilitation and reconciliation needs.
 - Delivery of basic services.
 - Maintaining the principles of transparency, fundamental human rights and the rule of law.
- d) Laying the groundwork for socio-economic development, rehabilitation of infrastructure and delivery of other services. In this exercise, special attention should be given to vulnerable groups including demobilised ex-combatants, war handicapped, widows, returned IDPs and refugees etc.

15.2.3 Long term Objectives

The government interventions are aimed at not only at restoration of the original status but also of raising the standard of life of all those who were displaced and suffered losses of income and property as a result of the conflict. This involves

- **Restoring Livelihoods**

A significant number of families still continue to live in the welfare camps and they are suffering from a dependency syndrome. Restoration of the livelihood is the beginning of the long process of the recovery.

- **Reactivating Service and Facilities**

Along with the restoration of livelihood, the service facilities have to be reactivated. In the resettlement process, housing facilities must be accorded high priority. Only with the reasonable housing with water supply and sanitation, the displaced and affected families could recommence their living. Basically, services, such as, health and education must be made available for sustenance.

- **Rehabilitation of Infrastructure Facilities**

For the restoration of the livelihood to be more effective along with reactivation of services, the economic infrastructure facilities must be rehabilitated. Roads, electricity, irrigation and communication are the important areas in this regard. Large investment requirements on such areas should be promoted.

- **Development of Human Capacities**

In order to provide effective services and make use of the infrastructure facilities, capacities and capabilities at various levels must be available. This has to be at individual, family, community and institutional levels. The capacities available at all these levels would only pave the way for undertaking the developmental activities. It is significant to note that much of the resources and other physical facilities are available, if the correct type of human resources is not in place, those available resources will not be used at a maximum or desired level.

- **Targeting Vulnerable Groups**

One major effect of the conflict and the tsunami is the creation of vulnerable groups who lost their sustenance. Economically deprived people who find it difficult to satisfy their minimum basic requirements are in a vulnerable position. They include the landless poor farmers, casual workers and daily wage earners. If their normal economic activities are disrupted, they are forced to be in below subsistence level. With the de-escalation of the armed conflict, the degree of vulnerability is on the decline through removal of checkpoints, work stoppages, security checks, etc. However, under the prevailing ceasefire there are occasional violent incidents that disrupt normal economic activities adding to the intensity of vulnerability. If the casual laborer, who earns a daily wage, could not work for a day loses his income, the person is below the subsistence level. The loss of daily wage will put him in a more vulnerable situation. This type of poorer groups should be allowed to engage in their normal economic activities to earn a livelihood in the agriculture, animal husbandry, fisheries and other informal sectors. Generally, disabled people, children, women and elders, are considered as vulnerable. In addition, to this normal phenomenon, orphans, children with single parent, widows, women headed families, abandoned parents, etc, have emerged as social groups. These vulnerable groups should be provided with sustainable livelihoods to ensure their dignity.

- **Establishment of Good Governance**

The absence of political leadership in the Northern and Eastern Provincial Council set-up allows the bureaucracy to enjoy more power without much accountability. Although this is the conceived perception, in reality, there is a presence of Central Government, the Governor, has more governmental power. The parliamentary representation in the area provides the political supervision. For good governance, in addition to accountability, the transparency is also vital. Civil societies, including NGO's and CBO's are very active in this region and their involvement ensures the transparency and accountability. Existence of a vibrant civil society, which includes private sectors, NGO's and CBO's could facilitate the establishment of a good governance.

15.3 Strategy for North East Development

- **Northern Revival**

Improvement of basic needs and service supply deteriorated by the conflict situation is an immediate need. Rehabilitation and improvement of economic infrastructure in the region will be given high priority

in the medium and long term. Facilitating the restoration of sustainable livelihood through opening income avenues and providing other ancillary services is also in the focus. Creation of ethnic harmony and establishment of a society in which each community group has their own identification and dignity will be the ultimate objective.

Table 15.1: Objectives, Targets and sub programmes

Priority Areas	Targets	Programmes
(a) Resettlement of IDPs and security of the people	<ul style="list-style-type: none"> • Construction of 80,000 houses • Resettlement of the all displaced people in their place of origin. • Expediting resettlement programme for displaced Muslims from the North • Peace and security under pinned by absence of conflict and violence 	<ul style="list-style-type: none"> • Establishment of a Fund to reconstruct the houses damaged by conflict. • Temporary allowance to people who had left their homes in high security zone. • Establishment of Jathika Saviya Authority for resettlement. • Reconciliation programmes.
(b) Restoration and maintenance of social services	<ul style="list-style-type: none"> • Ensuring access to health facilities. • Modernized health facilities • Provision of high standard education facilities. • Ensure the access of high standard education by all children. 	<ul style="list-style-type: none"> • Filling the all existing vacancies in the health sector in the North and East. • Improvement of health facilities. • Filling the all existing vacancies in the education sector. • Rehabilitation of damaged and destroyed educational infrastructure
(c) Restoration and maintenance of economic livelihoods	<ul style="list-style-type: none"> • Sustained economic growth. • Strengthening the cooperative movement 	<ul style="list-style-type: none"> • Revitalizing fishing and agriculture sector • Establishment of fish processing and canning factory. • Financial assistance to farmers • Marketing mechanism to agriculture product to provide fair prices. • Incentives to palmayrah, coconut and cashew plantation. • Reduce the salinity in soil in the areas to be used for agriculture. • Empowerment of cooperative movement under the national programme.
(d) Development of Infrastructure	<ul style="list-style-type: none"> • Promotion of socio economic development in the area. 	<ul style="list-style-type: none"> • Rehabilitation of Kankasanthurai harbour. • Construction of Northern Expressway. • Rehabilitation of railway track from Vauniya to Jaffna. • Rehabilitation of railway track from Madawachichiya to Talaimannar.
(e) Restoration and maintenance of community and cultural services	<ul style="list-style-type: none"> • Revival of religious and cultural activities 	<ul style="list-style-type: none"> • Reconstruction of all kovils, mosques, churches and temples and cultural centres.
(f) Protection of the environment	<ul style="list-style-type: none"> • Protected soil and bio-diversity. 	<ul style="list-style-type: none"> • Projects to protect and conserve environmentally sensitive areas with the community participation.

15.4 Eastern Revival

The Eastern Province will be revived by developing the townships of Kalmunai and Valachchenai as growth poles. All major cities in the eastern belt will be improved further and an agriculture export zone is to be established in Ampara to boost the economic activities in the region. The revival process consists of:

- Resolving the problems faced by people in the Eastern Province due to ethnic diversity and geographical and cultural reasons.
- Addressing the administrative problem faced by the Ampara and Batticaloa district people.
- Addressing the land issues faced by the Eastern people.
- Addressing the agricultural and irrigation needs of the Eastern farmers.
- Meeting the basic needs of the urban area in the Eastern province.
- Addressing problem faced by the livestock and fisheries industry.
- Solving the unemployment problem of youths.
- Addressing the problem faced by the Muslim schools in the Eastern province.
- Rehabilitation of tsunami areas and people.
- Developing culture heritage, and ethnic harmony.

Table 15.2: Objectives, Targets and sub Programmes

Priority Areas	Targets	Programmes
(a) Rehabilitating IDPs and assuring security of people	<ul style="list-style-type: none"> • Assured security and protection of lives and assets of the people. 	<ul style="list-style-type: none"> • New community-based security network comprising personnel from the armed forces, police, STF, local political leaders and people's organizations. • Establishment of Jathika Saviya Authority to expedite the rehabilitation process.
(b) Expediting tsunami recovery and reconstruction	<ul style="list-style-type: none"> • Assuring the meeting of specific needs of the tsunami affected people. 	<ul style="list-style-type: none"> • Implementation of specially designed programmes aimed at tsunami affected people.
(c) Restoration and maintenance of social services	<ul style="list-style-type: none"> • High standard education facilities to pupils. 	<ul style="list-style-type: none"> • Filling the existing vacancies in the education sector. • Developing the physical resources of the schools.
(d) Restoration and maintenance of livelihoods	<ul style="list-style-type: none"> • Increased regional income and reduced incidence of poverty. • Assured marketing facilities for agriculture and husbandry products. • Sustained growth in the fisheries sector. • Improved tourist industry. • Productive job opportunities for the people. • Reduced land litigation and land-related problems 	<ul style="list-style-type: none"> • Establishment of an agricultural export zone. • Renovation of irrigation schemes • Animal husbandry development programmes. • Implementation of development programmes aimed at fishing community. • Eastern coast zonal tourism development programme • Opening of new garment factories • Crash programme for land distribution.

(e) Development of

Priority Areas	Targets	Programmes
(e) Development of Infrastructure	<ul style="list-style-type: none"> Promotion of socio economic development in the area. 	<ul style="list-style-type: none"> Trincomalee Ocean City Development Project <ul style="list-style-type: none"> - Investment zone. - Tourism zone. Development of Oluwil harbour.
(f) Restoration and maintenance of community and cultural services	<ul style="list-style-type: none"> Restored and preserved archaeological sites 	<ul style="list-style-type: none"> Preservation of archaeological sites Development programmes to upgrade the religious places.
(g) Improved administration	<ul style="list-style-type: none"> Equal community representation in all fora. Addressing community specific issues and problems. Improved administrative services for people in the Ampara and Batticaloa districts. 	<ul style="list-style-type: none"> Special programmes to ensure community participation in decision making. Extensive programme for resolving specific problems faced by Sinhala , Muslim and Tamil communities. Establishment of an additional provincial administrative office at Kalmunai.
(h) Human settlements development	<ul style="list-style-type: none"> Modern growth centers in Valachchenai and Kalmunai. 	<ul style="list-style-type: none"> Township development programmes

Table 15.3: The Long Term Investment Plan

(Rs.Mn.)

Sectors	2007-2009	2010-2012	2013-2016	2007-2016
Protection and Resettlement	11,906	5,500	2,000	19,406
Health*	3,077	17,051	12,500	32,628
Education*	4,486	8,400	6,285	19,171
Housing	12,606	22,116	39,494	74,216
Infrastructure*				
- Roads and Bridges	25,754	38,000	40,000	103,754
- Power	9,300	25,000	40,000	74,300
- Water Supply and Sanitation	25,211	10,000	8,000	43,211
- Others (Ports and Railway)	7,450	11,500	20,000	38,950
Agriculture, Fisheries and Irrigation*	10,266	8,749	9,000	28,015
Livelihood Development	6,639	4,500	2,500	13,639
Capacity Development and Institution Strengthening*	1,418	2,184	1,500	5,102
Community Development and Environment	1,856	4,848	1,800	8,504
Total	119,969	157,848	183,079	460,896

*These investments have been included separately in the relevant chapters corresponding to investment needs of sub sectors.

16. Macro Economic Framework

The Macroeconomic Framework of Sri Lanka 2006-2016 is based on assumptions on the developments in domestic and international economic environment and medium and long term policy measures and directions of the Government.

16.1 Assumptions

16.1.1 Global economic environment

- Global economy is expected to grow around 5 per cent in the next few years, which would generate healthy external demand for Sri Lanka's goods and services.
- Emerging market economies in the region are expected to grow well above global growth. This regional growth will have positive spill over effects on Sri Lankan economy through higher integration to the region.
- Access to external financing is increasing with more regional countries such as India, China and most East Asian countries are generating surpluses and becoming net lenders from net borrowers in the past.
- Import and export prices are consistent with projections in the World Economic Outlook. Other major assumptions are given in Annex 1.

16.1.2 Domestic economic environment

- Government has given highest priority to accelerate public investment on infrastructure development. Targeted major infrastructure projects, timeline for implementation and cost are given in Table 1.2.
- Implementation of these development projects will boost economic activities in those regions immediately. Private sector is expected to respond to this demand increasing their economic activities.
- Completion of these projects would address the infrastructure bottlenecks increasing capacity to grow. This will facilitate private sector to unleash its growth potential in all key sectors.
- Improved aid effectiveness, through better targeting and rationalization of foreign funded development program.
- As a newly emerging middle-income country, cautious management of our access to international capital markets and prudent use of such funds when necessary.
- Continuation of the fiscal consolidation process through revenue enhancement and expenditure rationalization to contain the fiscal deficit.
- Maintenance of prudent monetary policy and the flexible exchange rate policy supportive of price and financial market stability and balance of payments sustainability.

16.2 Strategies

16.2.1 Factors of Growth and Regional Development

- **Peace:** Pursuing a negotiated settlement for lasting peace by building consensus among involved parties.
- **Maintaining a Liberal Economic Regime:** Export sector will continue to be supported through a conducive tax regime, facilitating more market access via multilateral and bilateral trading arrangements, encouraging more value addition, providing access to duty free inputs and maintaining liberal investment regime. Import tariffs will continue to be simplified providing inputs to domestic industries to maintain their competitiveness.

- **Capacity Expansion:** Enhancing production capacity in all sectors of the economy by promoting public, private and foreign investment.
- **Human Resources Development:** Strengthening and upgrading primary, secondary and tertiary education institutions by maximising available opportunities and enhancing the access to education, while improving quality and relevance of education at all levels. Providing high quality, equitable, cost effective, modern and sustainable health care services.
- **Infrastructure Development:** Building modern, high quality and efficient infrastructure facilities to expand access to markets. Maintain and rehabilitate existing road network, construction of highways, increasing the coverage of safe drinking water, upgrading the railway sector, expanding the supply of electricity, transmission and distribution accelerating ongoing power sector reforms, and developing alternative energy to reduce the cost of power while taking into consideration the social problems and environmental implications and transforming port and airport sectors as an air-sea hub and logistic centre.
- **Improving Technology and Research and Development:** Promoting application of modern technology and undertaking research and development activities in the country to enhance competitiveness.

16.2.2 Macroeconomic Policies and Strategies

- **Fiscal Policy**

Fiscal: Turning around revenue deficit to a surplus through expanded tax base, higher non tax revenue efforts from state enterprises and cost effective public expenditure management system together with prudential debt policy, increasing public investments largely through financing from concessionary foreign sources and long-term funding services and phasing out budgetary transfers to state enterprises. Public expenditure will be programmed within a medium-term and sector budget framework to improve efficiency and productivity. Tax administration as well as policy environment will be directed to create simple and efficient system of taxation. Overall macro fiscal policy framework will be guided within the Fiscal Responsibility Act of 2002.

Monetary and Financial: Avoiding demand-fuelled inflation, ensuring required credit growth for sustained economic activity and strengthening financial sector stability. Further strengthening the regulatory framework in the banking, insurance and financial services. Introducing measures to reduce high interest spread, prudential measures to banking & financial institutions, strengthening state banks as strategic state enterprises to improve their financial viability and improve their competitiveness.

- **Policies to Strengthen Structure of the Economy**

Market Development Strategy: Strengthening both product and factor markets to ensure efficiency and competitiveness of the economy. Major markets requiring improvements are the land, labour and financial markets.

Infrastructure Development Strategies: The country requires an efficient and fast growing infrastructure system spread throughout the economy to help achieve regionally balanced growth. Public sector institutions, which supply vital services such as power, water, transport, and other services, are important service providing institutions of the government. Most of those institutions are monopolies, yet the quality and adequacy of services and financial position are very poor. Hence, those institutions are earmarked for strategic reforms.

Public Service Development Strategies: The public sector will engage in its critical role as facilitator and pacesetter. The entire perspective of the public service will have to focus on learning to anticipate change, include development and meet the demands of the future in innovative ways.

Administrative Service Development Strategies: The institutional strengthening will be implemented to make the government's administrative machinery an efficient, friendly and modern entity through the reforms in rationalisation of functions of government agencies to ensure that they are focused on functions relevant to current needs, with special emphasis on transparency and the use of modern technology.

16.2.3 Liberalised Policy to Enhance Capital Market Development

The Government will open the Rupee denominated Treasury bond market for foreign investors. Treasury bond is a medium and long-term debt instrument issued by the Government to raise funds from the domestic market to finance the Government budgetary operations. This will be the first instance such a liberalization policy is taken by the Government to open the gilt-edged Rupee securities market for foreign investors. This measure will increase the freedom in capital account transactions and thereby enhance the development of the capital market by broadening the investor base and increasing the competition in the bond market.

Foreign investors will be permitted to purchase Treasury bonds with minimum maturity period of two years and total investment limited to 5% of the value of Treasury bonds outstanding at any given period of time.

Foreign investors will be able to purchase Treasury bonds at any time from the secondary market through participatory agents ie. Licensed Commercial Banks and Primary Dealers. In addition, foreign investors will be permitted to bid at primary auctions of Treasury bonds through primary dealers.

16.2.4 Trade Policy

- **Present Status and Challenges**

Sri Lanka depends heavily on imported inputs especially in the key export industry, the apparel sector, and also for a large share of our investment. Most exports of the country are destined at EU and US markets with less movement towards regional markets. The trade policy for market diversification does not explicitly recognize the importance of emerging growth centers in Asia nor does it entail any meaningful programs.

Sri Lanka has rapidly integrated into the world trading system with the trade policy liberalization. Of the total external trade, goods and services trade accounts for 76 percent of GDP, indicating sharp rise in this openness indicator, compared to about 35 per cent in the pre-liberalized period. The tariff structure has been simplified, rationalized and lowered over the years and currently it maintains a four-band system. The current account fully liberalized and capital transactions are relatively free.

Sri Lanka has in the recent times strengthened its preferential trade policy regime with a view to promote external trade through rapid integration into regional markets. The Indo-Sri Lanka Free Trade Agreement (ISFTA), Pakistan Sri Lanka Free Trade Agreement (PSFTA) and South Asian Free Trade Agreement (SAFTA) are significant drivers of regional trade. The country has not properly developed a program for promoting trade in service either on regional and extra-regional context.

Over the years Sri Lanka has, strengthened the liberal trade and payments policy regime, with no aberration. The country's regulatory system dealing with the external trade has not been upgraded commensurate both with progress made in this respect elsewhere and the country's own trade policy improvements. Many gaps do exist in the laws, institutions and enforcement in regard to trade inspection, certification, standards, facilitation, etc, making domestic manufacturer and the consumer at a disadvantageous position.

- **Strategy**

The external trade and environment is becoming intensely competitive. The external trade and investment policies will promote both exports and efficient import substitution. With the growing domestic income significant component of domestic demand need to be met out of local production. Such a policy will also help in the balance of payments adjustment process to further strengthen medium-term debt sustainability. This strategy is built on a framework, ensuring consistent, transparent, predictable and liberal external trade policy regime.

- Market penetration through preferential market access programs. Strengthening existing regional integration arrangements (RIAs) to ensure improved market access in regional economies.
- Negotiations of new RTAs with advanced economies and/or countries whose economies are dissimilar for increased market access. This ensures trade expansion through the process of capturing trade complementarities on preferential basis.
- Development of market penetration schemes for fast growing economies in Asia while devising mechanism to capture available opportunities under the GSP+ Scheme, including attraction of foreign investment.
- Diversification of Sri Lanka's export sector with the emphasis on small and medium enterprise sector
- Development of infrastructure and policy support- based backward integration for high value added thrust export industries- apparel, tea, gem and jewellery, spice, electronic based products
- Promotion of Trade in services, including IT related and services with higher domestic value addition.
- Creating infrastructural, institutional and regulatory framework for developing Colombo centered South Asian Economic Hub with a focus on free port and entrepot trading, financial environment, sea port facilities.
- Upgrading competitiveness and trade regulatory environment for ensuring level playing field between imported and local products in the domestic market
- Reorientation of diplomatic services for promoting country's economic interests.

16.3 Expected Outcome

16.3.1 Real Sector Developments

- During 2006-2010, GDP is projected to grow at 7.0 – 8.5 per cent. The growth is expected from improvements in all three sectors of agriculture, services and industrial sectors. Investment as a percentage of GDP is expected to increase from 30 to 35 per cent over the medium term while inflation will decline to 4.0- 4.5 per cent by 2010.

Table: Medium-Term Investment

Indicator	Units	2005	2006	2007	2008	2009	2010
Total Investment	% of GDP	26.5	28.3	32.0	32.0	33.0	33.5
Public Investment	% of GDP	6.3	6.6	9.6	8.6	8.0	8.0
Private Investment	% of GDP	20.2	21.7	22.4	23.4	25.0	25.5
Foreign Direct Investment	% of GDP	1.2	1.9	1.9	2.0	2.0	2.0
Domestic Investment	% of GDP	19.0	19.8	20.9	21.4	24.9	23.5
National Savings	% of GDP	23.3	24.2	26.6	28.2	28.8	29.6

- Further acceleration of the growth is projected with the planned infrastructure investment and sectoral policies as described in other sectors of this document and several key areas such as power, sea ports and air ports, roads, railways, water supply and sanitation, irrigation and urban and township development etc. and expected increase in private investment.
- A steady increase in domestic savings both by the private and public sectors as well as higher foreign capital flows will support the higher level of investment. The domestic saving ratio is projected to increase from 18 per cent of GDP in 2005 to 25 per cent of GDP in 2010, with a further increase thereafter to around 30 per cent of GDP by 2016.
- The per capita GDP is projected to increase from US \$ 1,200 in 2005 to around US \$ 4,000 by 2016, a three-fold increase of incomes and the standard of living in Sri Lanka. Moreover, with the more balanced approach to overall economic development, benefits of this growth will be accrued to the entire population.
- From the supply side, the growth will be reflected in all three major sectors – Agriculture, Industry and services. The agriculture, forestry and fishing sector is expected to grow over around 4 per cent exceeding the average growth rate of around 1.0 percent in the past 10 years. Although, total land extent under tea bearing will increase only marginally over the medium term, the growth in the tea sector is expected mainly from improvements in value addition. Rubber production is expected to increase through expanding tapping areas and good management practices.
- The Industrial sector growth is expected to accelerate from 7 per cent in 2005 to about 10-12 per cent by 2016 with higher performance expected from mining and quarrying, textiles & apparel, leather products, gem & jewellery, ceramics, high value added tea and other factory industries, electricity, gas and water, small industries and construction sub sectors. The share of industrial sector in GDP will increase from 27 per cent in 2006 to about 30 per cent by 2016.
- The Services sector in which Sri Lanka has a comparative advantage and also is expected to grow at 9-10 per cent with a further improvement in telecommunications, import and export trade, cargo handling, financial services as well as many other private services including health and educational areas. The share of services sector in GDP is expected to increase from 58 per cent in 2006 to 59-60 per cent by 2016.

16.3.2 External Sector Outcome

- The external sector targets maintaining a level of external reserves, sufficient to cover more than 3 months of imports, while ensuring the stability in the foreign exchange market under floating exchange rate regime.
- Exports are projected to grow at around 10- 12 per cent and reach US dollars 10 billion in 2010 with increased market access expected from the expansion in multilateral, regional and bilateral trade arrangements, maintenance of export competitiveness, continuing growth in global trade and higher investment.
- Imports are also projected to grow at a high rate of around 10 per cent and reach US dollars 15 billion in 2010 and to US dollars 28 billion by 2016 largely due to increased demand for investment and intermediate goods by both private and public sector to support higher export growth and economic growth.
- Higher investments in ports, telecommunications and tourism sectors and promotion of IT and IT enabled services exports including Business Process Outsourcing would result in higher net inflows to the services sector.
- Sri Lanka has a vast potential in the tourist industry compared to most regional countries. Development of public infrastructure supplemented by private sector investment could make

Sri Lanka a major tourist destination. With the implementation of policies and projects, tourist arrivals in the medium term are projected to grow at a higher rate.

- With the changing composition of skills categories of workers going abroad and changing composition of country destinations, the workers' remittances to Sri Lanka are projected to increase from an estimated US \$ 2.4 billion in 2006 to around US \$ 4 billion in 2010 and around US \$ 6.5 billion by 2016.
- Higher capital and financial inflows both to the private sector and government are expected to fully finance the deficit in the current account and result in gradual build up in official reserves in the medium term. Private capital inflows will be doubled to reach US \$ 1,000-1,100 by 2010, from a level of US \$ 531 million in 2005 and by 2016, the annual flows are expected to reach US \$ 3.5 billion.
- To finance higher public investment program, particularly to develop infrastructure, government may need to mobilise US dollars 200-400 million annually from international capital markets in addition to the expected concessional financing.
- The macroeconomic projections indicate a continuing improvement in the external debt indicators. The debt service ratio would decline from 11.9 per cent of exports of goods to 7.2 per cent by 2010. The external debt to GDP ratio will also decline to 36 per cent of GDP by 2010, from 48 per cent in 2005. These debt indicators are expected to improve further with the acceleration of GDP growth and exports.

16.3.3 Fiscal Sector Outcome

- The government will continue its efforts to achieve the targets indicated in the medium term fiscal strategy presented with the Budget 2006. The budget deficit would be reduced to around 5 per cent of GDP by 2010. This target is also consistent with the targets stipulated in the Fiscal Management (Responsibility) Act (FMRA), albeit with a lag of a few years.
- Policies aimed at increasing revenue and rationalizing current expenditure will be continued. Strengthening of tax administration and broadening the tax base are among the major policy actions required to augment the revenue collection.
- Current expenditure will be rationalized with improvement of debt management, reducing the interest cost and making public service delivery more efficient.
- To support the higher economic growth targets, public investment, including tsunami related expenditure, is projected to remain around 8 per cent of GDP in the medium-term. The tsunami related reconstruction expenditure will be higher in 2006 but would gradually decline with the completion of tsunami related reconstruction activities. However, with the planned early completion of several flagship infrastructure projects, which are almost entirely foreign financed, a somewhat higher public investment ratio is expected in the next few years.
- Revenue collection is expected to increase gradually to around 19 per cent by 2010. Due to the gradual completion of tsunami reconstruction activities coupled with fiscal consolidation efforts, total expenditure and net lending is expected to decline to below 24 per cent by 2010. Benefiting from the expected increase in the revenue collection, current account operations would generate a surplus from 2008, which will facilitate providing more funds for public investment to achieve higher economic growth targets.
- In financing the budget deficit, borrowings from domestic sources are expected to contain below 3 per cent of GDP in the medium term. The expected lower borrowings from the domestic sources will lead to repay a part of outstanding loans to the banking system.

- The total public debt stock as a rate of GDP is expected to decline from 94 per cent in 2005 to 77 per cent in 2010. The debt GDP benchmark set in the Fiscal Responsibility Act will achieve in 2008, when this ratio falls below 85 per cent of GDP.

16.3.4 Monetary Sector Outcome

- A monetary program consistent with the developments in the real sector, external sector and the fiscal sector will be maintained aimed at steady decline in inflation.
- Reserve money is projected to grow in line with the expected nominal GDP growth. The broad money is projected to grow slightly above the growth of reserve money due to an expected gradual increase in money multiplier. Money multiplier may increase with the increase in foreign currency deposits, which are not subject to the requirement for statutory reserves.
- Net Foreign Assets (NFA) of the Central Bank is expected to improve over the medium term with the expected improvement in the balance of payments. Net foreign assets of commercial banks also expected to improve in line with the needs of the growing economy.
- Net Domestic Assets (NDA) may increase mainly as a result of the growth in credit to the private sector while this credit growth is consistent with the expected economic growth. The improved fiscal position and the expected improvements in the performance of public corporations imply that their resort to bank financing will be contained. Hence, the medium-term financial programme does not envisage any new net bank financing by this sector.
- Policy interest rates will be the main instruments conducting monetary policy.

16.4 Downside Risks

- Higher than expected oil prices in international markets could threaten the macroeconomic stability and growth targets. Major contributions to the escalation of prices are geo-political uncertainty, supply disturbances due to terrorist activities, refinery capacity limitations and strong demand.
- Any disorderly adjustments in global imbalances resulting a lower than expected global economic growth could adversely affect external demand for Sri Lanka's goods and services.
- Despite the robust global economic expansion there are signs of build-up of underlying inflationary pressures in many countries. The global headline inflation has picked up in response to high-energy prices and core inflation has also begun to indicate the impact of high-energy prices. Consumer prices in major advanced countries as well as emerging economies have surged further in June 2006.
- Any undue delays in the development of planned economic infrastructure development will become constraints to increasing investment and achieving growth targets.

Macroeconomic Framework: Selected Economic Indicators 2006-2016

	Units	Projections						
		2006	2007	2008	2009	2010	2011	2016
Population	Mn.	19.9	20.1	20.3	20.5	20.7	20.9	21.9
GDP and Prices								
GDP Growth	%	7.4	7.5	8.0	8.3	8.5	8.7	10.6
Agriculture	%	7.7	4.5	4.8	4.9	5.0	5.0	5.0
Industry	%	7.5	7.9	8.4	8.6	8.6	8.3	10.5
Services	%	7.3	8.0	8.5	9.0	9.2	9.6	11.5
GDP Deflator	%	9.4	8.5	7.0	6.0	5.5	5.0	4.0
GDP at Market Prices	Rs. Bn.	2780	3242	3746	4301	4925	5620	10975
Per Capita GDP at Market Prices	Rs.'000	140	162	184	209	234	262	487
Investment and Savings								
Gross Investment	%	30.0	32.0	32.5	33.0	33.5	34.0	36.5
Public	%	6.6	8.5	8.6	8.0	8.0	8.2	8.2
Private	%	23.4	23.5	23.9	25.0	25.5	25.8	28.3
Gross Domestic Savings	%	17.5	19.2	20.3	21.0	21.7	22.8	26.6
Gross National Savings	%	25.0	27.3	28.9	29.5	30.2	31.2	33.6
External Sector								
Exports	US\$ mn.	6,923	7,645	8,478	9,361	10,337	11,527	19,497
Imports	US\$ mn.	10,601	11,837	13,037	14,452	15,950	17,495	28,802
Trade Account/GDP	%	-13.7	-14.1	-13.8	-13.9	-13.7	-13.0	-10.9
Services, net	US\$ mn.	334	409	551	676	756	834	849
Worker Remittances	US\$ mn.	2,311	2,668	3,114	3,461	3,831	4,205	6,568
Current Account	US\$ mn.	-1,448	-1,538	-1,413	-1,565	-1,685	-1,651	-3,031
Current Account/GDP	%	-5.4	-5.2	-4.3	-4.3	-4.1	-3.6	-3.6
Overall Balance	US\$ mn.	150	270	458	571	639	638	823
Gross Official Reserves (GFA)	US\$ mn.	2,454	2,719	3,104	3,577	4,180	4,807	8,345
Import Capacity of GFA	Months	2.8	2.8	2.9	3.0	3.1	3.3	3.5
Foreign Debt/GDP	%	45.3	42.4	40.1	38.0	36.4	34.5	25.0
Foreign Debt Service to XGS	%	12.0	9.8	10.5	10.1	7.9	7.5	5.7
Fiscal Sector								
Revenue	% of GDP	17.4	18.5	18.8	19.2	19.5	19.6	20.0
Expenditure	% of GDP	26.1	26.9	26.4	25.0	24.5	24.4	23.5
Overall Balance 1/	% of GDP	-8.7	-8.4	-7.6	-5.8	-5.0	-4.8	-3.5
Government Debt Stock	% of GDP	91.5	86.5	82.3	77.6	72.8	68.8	50.8
Monetary Sector (Growth Rates)								
Reserve Money	%	17.8	17.6	16.5	15.8	15.5	15.1	16.0
Broad Money Supply	%	17.8	17.6	16.5	15.8	15.5	15.1	16.0
Net Foreign Assets	%	21.5	16.8	21.7	21.9	20.3	16.7	11.6
Net Domestic Assets	%	16.9	17.8	15.2	14.2	14.1	14.6	17.3
Credit to Private Sector	%	16.8	18.6	17.7	16.0	15.4	15.6	17.4

Note: Figures as at Nov. 3, 2006

Exogenous Factors and Assumptions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Mid-year Population ('000)	19,696	19,892	20,091	20,292	20,495	20,700	20,907	21,116	21,327	21,541	21,756	21,974
Population growth rate	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
World output, inflation and interest rates 1/												
World Inflation, Advanced economies(% change)	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Partner & Competitor Country inflation (% change)	2.5	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
World Output (% change)	4.8	4.9	4.7	4.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
LIBOR for USD (%)	3.8	5.2	5.4	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Interest rate on Concessional Loans(%)	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
External Sector												
Export Prices (% change in USD terms)												
Tea	6.6	4.0	2.8	3.9	3.4	2.9	3.2	6.2	2.9	8.6	2.6	2.6
Rubber	16.0	37.3	1.5	1.5	0.0	1.0	0.0	1.0	0.9	0.5	0.0	2.3
Coconut	18.9	-3.4	-3.4	-3.6	11.6	0.0	0.0	7.7	0.0	0.0	7.1	0.0
Other Agricultural Products	-5.3	2.0	0.0	0.0	2.2	0.0	0.0	2.4	2.4	0.0	0.0	0.0
Garments	0.0	0.5	1.0	1.0	0.6	0.3	0.3	0.4	0.0	0.4	0.3	0.3
Exports Price												
Tea US\$/Kgs.	2.62	2.73	2.80	2.91	3.01	3.10	3.20	3.40	3.50	3.80	3.90	4.00
Rubber US\$/Kgs.	1.47	2.02	2.05	2.08	2.08	2.10	2.10	2.12	2.14	2.15	2.15	2.20
Coconut US\$/ Nut	0.13	0.13	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.15	0.15
Other Agricultural Products US\$/Kgs.	1.97	2.01	2.01	2.01	2.05	2.05	2.05	2.10	2.15	2.15	2.15	2.15
Garments US\$/Kgs.	6.80	6.90	6.97	7.04	7.08	7.10	7.12	7.15	7.15	7.18	7.20	7.22
Import Prices (% change in USD terms)												
Rice	12.20	4.20	-3.30	-5.20	-7.30	-3.90	0.00	0.00	0.00	0.00	0.00	0.00
Sugar	26.60	39.50	-6.10	-9.20	-9.30	-11.00	-7.00	0.00	0.00	0.00	0.00	0.00
Wheat	-11.20	8.20	-3.00	-6.30	-3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crude oil	39.80	28.40	2.60	-1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fertilizer	21.90	26.40	-3.10	-3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufactured Goods	1.40	1.00	1.05	0.98	0.98	0.98	0.00	0.00	0.00	0.00	0.00	0.00
Food Products	-0.10	0.10	1.30	1.10	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Imports Prices												
Rice US\$/MT.	300.6	313.2	302.9	287.2	266.2	255.8	255.8	255.8	255.8	255.8	255.8	255.8
Sugar US\$/MT.	316.5	441.5	414.6	376.4	341.4	303.9	282.6	282.6	282.6	282.6	282.6	282.6
Wheat US\$/MT.	163.7	177.2	171.9	161.0	155.7	155.7	155.7	155.7	155.7	155.7	155.7	155.7
Crude oil Prices US\$/barrel	52.4	67.3	69.0	68.0								
Fertilizer US\$/MT.	255.3	322.6	312.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
Fiscal Sector												
Defence expenditure (% of GDP)	3.5	3.5	3.3	3.1	3.2	3.1	3.1	3.0	3.0	2.9	2.8	2.8
Salary Bill (% of GDP)	6.0	6.2	6.0	5.7	5.8	5.6	5.5	5.3	5.1	4.9	4.7	4.8
Subsidies: Fertilizer, Samudhi and other welfare (% of GDP)	2.0	1.1	1.2	1.1	1.0	0.9	0.8	0.6	0.5	0.5	0.4	0.5
Dollar denominated domestic loans (US\$ mn)	961	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172
Monetary Sector												
Money multiplier	5.16	5.17	5.19	5.22	5.25	5.28	5.30	5.33	5.36	5.38	5.41	5.44
Velocity	2.32	2.31	2.31	2.29	2.29	2.26	2.25	2.24	2.23	2.22	2.21	2.20

Source 1/ World Economic Outlook - April 2006

Table 1.2 :Targeted major Infrastructure Projects - Mahinda Randora

Sector	Project	Cost US \$ Mn	Timeline 2006 2007 2008 2009 2010 2011
Power & energy	<ol style="list-style-type: none"> 1 Upper Kotmale Hydropower projects 2 Coal Fired power Plant 3 Trincomalee Coal Power Plant 4 Kerawalapitiya Dual Fuel (light) Power Plant & LNG Terminal 5 Kerawalapitiya Dual Fuel (heavy) Power Plant 6 Moragalla Hydropower projects 7 Broadland Hydropower projects 8 Gin Ganga Hydropower projects 9 Hambantota Coal Power Plant 	<p>300 455 500 500 250</p>	
Express Highways Development	<ol style="list-style-type: none"> 10 Southern Transport Development Project (southern Expressway) 11 Colombo - Katunayake Expressway 12 Outer Circular Road (OCH) 13 Alternative Colombo-Kandy Highway(ACKH) 	<p>440 295 330</p>	
Improvement & Rehabilitation of Road Network	<ol style="list-style-type: none"> 14 Road Network Improvement Project - (Funded by ADB) 15 Road Network Improvement Project - (Funded by JBIC) 16 Emergency Assistance for Flood Affected areas 17 Rehabilitation of Balangoda - Bandarawela Road 18 Road sector Assistance Project (Funded by WB) 19 National Highway sector Project 20 Baseline Road Phase III 	<p>126.7 35.5 17.39 28.83 107.12 150 70</p>	

Table 1.2 : Targeted major Infrastructure Projects - Mahinda Randora

Sector	Project	Cost US \$ Mn	Timeline						
			2006	2007	2008	2009	2010	2011	
Construction of Bridges and Flyovers	21 Construction of 27 bridges	13.99	↑						
	22 Reconstruction of 10 Bridges	12		↑					
	23 Manampitiya Bridge Construction	17.62	↑						
	24 Batticaloa - Trincomalee road project (Kinniya bridge)	12.45	↑						
	25 Construction of Steel Bridges	17.55	↑	↑					
	26 Construction of a fly over at Nugegoda junction ,signalization at Rajagiriya junction and Kiribathgoda - Kadawatha Road	10	↑	↑					
	27 Construction of flyovers in the city of Colombo	160	↑						
Tsunami Affected Roads Rehabilitation	28 (TAARP)- Reconstruction of Roads & Bridges in NorthEast Province	66			↑				
	29 Construction of Bridges & Causeways in Tsunami affected southern & eastern coastal areas	17.2	↑						
	30 Reconstruction of Arugambay Bridge	12.1		↑					
	31 TAARP - Reconstruction of Matara - Weerawila - Wellawaya , Andella-Tissa , Tissa-Kirinda, Siyambalanduwa-Pothuivil , Pananma -Pothuivil and Pothuivil Akkaraipattu road	60		↑					
	32 Trincomalee Integrated Infrastructure Project 9TIIP)	67			↑				
	33 Tsunami Affected Areas Rebuilding Project (TAARP)- Construction of Bridges at Oddamawadi, Irakkandi, Koduwakattumalai and yan Oya	28.75		↑					
	34 Pro poor eastern infrastructure Development Project	5.1			↑				
	35 Reconstruction & Rehabilitation of Mahanama Bridge in Matara	8.8			↑				
	36 Katukurunda Matara Road Section of CGHW Road including beach road at Matara	14.4						↑	

Table 1.2 : Targeted major Infrastructure Projects - Mahinda Randora

Sector	Project	Cost US \$ Mn	Timeline 2006 2007 2008 2009 2010 2011
Rail transport	37 Matara - Kataragama Rail Road 38 Extension of Kelani Valley Line to Hambantota 39 (Phase 1 -up to Awissawelle) 40 Kurunegala - Habarana 41 Colombo - Matara Rail Road Project	120 50 200	
Ports	42 Port of Galle 43 Development of Sea Port at Hambantota 44 Parallel work on Colombo South harbour 45 Breakwater and 2 terminals 46 Oluvil Port Development 47 Rehabilitation & Improvements to KKS harbour	150 300 220	
Aviation	48 Weerawila International Airport 49 Parallel Runway at BIA	125	
Irrigation	50 Menik Ganga Basin Development 51 Weheragala Reservoir 52 Kekiriogoda 53 Deduru Oya Reservoir 54 Moragahakanda Reservoir 55 Rambukkan Oya Projects 56 Heda Oya Reservoir Project 57 Yan Oya Reservoir Project 58 Urava Diversion Project 59 Uma Oya Hydropower /diversion Project 60 Mahaweli Development of system B - Maduru Oya left bank - (balance area)	100	

Table 1.2 : Targeted major Infrastructure Projects - Mahinda Randora

Sector	Project	Cost US \$ Mn	Timeline 2006 2007 2008 2009 2010 2011				
Bridges	61 Manampitiya 62 Mannar 63 Arugambay 64 Mahanama 65 Kinniya 66 Bentota & Tangalla 67 Oddamawadi 68 Kallady 69 Akurala, Seenigama, Magalla, Goyyapana & 70 Weligama Bridges 71 Bridges at Komari, Periyakallaru, Kodkaikallaru & Panichchankerni 72 Bridges on A15 (Thirukondaiyadimadu- Trincomalee) Road at Varugal, Kayankerny, Mutur, Gangi and Upparu 73 Bridges on Trincomalee - Pulmodai Road at Irakkandi, Koduwakattumalai and Yan Oya 74 Nayar & Causeway and Vadduvakallu 75 Thondamanaru Bridge & Karainagar Causeway	13 11 6 9 13 2 11 10 7 8 12 12 5 5					
Township	76 Servicemen Housing Project 77 Greater Dambulla Township 78 New Fish Market - Peliyagoda						
Tourist Resorts	79 Kalpitiya 80 Trincomalee						

Table 1.2 :Targeted major Infrastructure Projects - Mahinda Randora

Sector	Project	Cost US \$ Mn	Timeline						
			2006	2007	2008	2009	2010	2011	
Water Supply Schemes	81 Secondary Towns & Community Water Supply Project in Batticaloa, Polonnaruwa, Anuradhapura, Trincomalee, Hambantota & Matara	174				↑			
	82 Construction of New Water Treatment Plant at Kelani Right Bank	60				↑			
	83 Town South of Kandy Water Supply Project	72				↑			
	84 Grater Kurunegala Water Supply & Sanitation	16				↑			
	85 Jaffna Water Supply & Sanitation Project	65							↑
	86 Grater Trincomalee Integrated Water Supply	16				↑			
	87 Eastern Coastal Towns of Ampara District - Phase III	92							↑
	88 Nuwara -Eliya District Group Water Supply	22				↑			

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