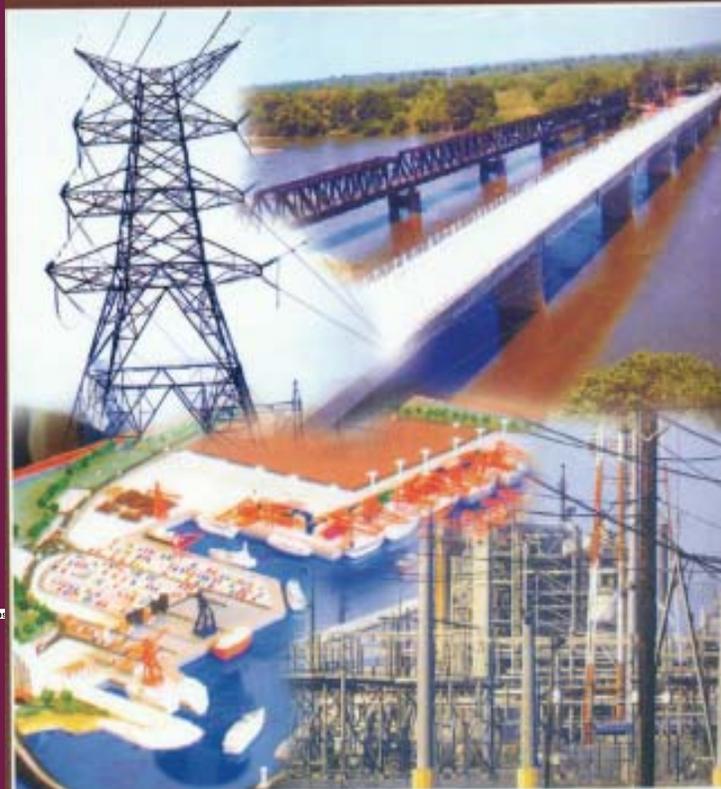


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Mahinda Chinthana: A Commentary on Policy Options



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on Policy Options**

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Foreword

Mahinda Chinthana: Vision for a New Sri Lanka was produced by the Department of National Planning, Ministry of Finance and Planning in late 2006. It is a Ten Year Development Framework 2006-2016 and articulates the way forward under the current political leadership.

The Mahinhda Chinthana: Vision for a New Sri Lanka (MCVSL) was released as a Disucssion Paper. Perhaps this may have been done to generate discussion and debate on the way forward. The IPS examined MCVSL taking into account the current overall policy framework and attempted to shed some light on possible policy options where necessary. In this exercise, 10 chapters out of the 16 chapters of the MCVSL were selected for commentary, viz., Chapters 1 & 2 on Agriculture and Irrigation, respectively; Chapter 3 on Industrial Development; Chapter 4 on Economic Infrastructure; Chapter 7 on Livelihood Development and Social Protection; Chapter 8 on Education; Chapter 9 on Health; Chapter 11 on Flexibility and Globally Employable Workforce; Chapter 13 on Environment; and Chapter 16 on Macroeconomic Framework.

It was a collective IPS research team effort and the 10 chapters were examined by different research teams. It was decided to release the analysis dones so far as a Working Paper. Each chapter in the Working Paper stands on its own and no attempt has been made to integrate all the chapters into a broad policy framework. The Working Paper while discussing the policy alternatives hghlights the constraints in the way forward and reviews the overall strength of the development plan and reveals implementation challenges.

It is hoped that this Working Paper titled: 'Mahinda Chinthana: Commentary on Policy Options' will generate further discussion and debate and will be of use for policy makers in exploring alternative ways to move forward in various sectors of the economy of Sri Lanka.

Saman Kelegama
Executive Director
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October 2007

1. Introduction

The Sri Lankan economy has grown on average at around 5 per cent per year over the past two decades despite significant constraints imposed by the adverse impacts of an on-going conflict over the same period. However, the country's economic growth has increasingly tended to lag behind those of emerging economies in neighbouring Asia. Thus, despite a promising performance in per capita growth of over 3 per cent per annum in the last two decades, Sri Lanka has managed to see an overall reduction in absolute poverty of only around three percentage points with the national poverty headcount ratio remaining stubbornly high at around 23 per cent. Perhaps even more worryingly, there is increasing evidence to suggest that income inequality in Sri Lanka has also been on the increase, with significant inequities emerging across sectors and provinces of the country.

The continuing high poverty incidence in Sri Lanka can largely be attributed to a failure to achieve a sustained acceleration in economic growth. Economic growth was undoubtedly constrained by an ongoing civil conflict, but the inability to accelerate and sustain a higher growth momentum has also been due in part to policy failures. With the structure of production and employment shifting away from agriculture and towards services - and towards manufacturing to a more limited extent - the rural agricultural economy has lagged considerably behind. Low productivity, lack of adequate rural infrastructure, poor marketability of agricultural produce, etc., have stymied improvements in the sector. By contrast, superior infrastructure and advantages of location spurred the concentration of economic activities in and around the urban centres of the Western Province. As a result, rural incomes have stagnated - with the slow growth in industry also limiting the absorption of excess agricultural labour surplus.

Even though the overall policy framework to achieve the broad based development goals for the country - of sustainable growth, equity and poverty alleviation - has not varied substantially in the last two decades, successive governments have been less than successful in effectively articulating and implementing a consistent policy paradigm. For instance, there have been three separate development frameworks in the last four years alone - i.e., *Regaining Sri Lanka*, *Rata Perata* and *Mahinda Chinthanaya*.

While the commitment to a market-oriented economy has not wavered, there have been nuanced changes to policy direction more recently reflecting rising concerns about those left behind by economic progress. The policy direction appears to be an attempt to allay a sense of disenchantment of the country's progressive move towards an increasingly liberal economy where pro-market policies were perceived not to be of benefit to the vast majority of the population. In this context, the government has been working on a national development strategy since early 2006 based on the "Mahinda Chinthanaya" election manifesto. The resulting Ten Year Horizon Development Framework 2006-16¹ based on the economic policy framework "Mahinda Chintana: Vision for a New Sri Lanka" has signalled that the approach to achieving Sri Lanka's fundamental development objectives would differ in tone and focus with a stronger emphasis on the rural economy, agriculture, and small and medium enterprises (SMEs) as vehicles for generating a vision of 'growth with equity'.

¹ Hereafter referred to as the Ten Year Plan (TYP).

The TYP is an attempt by the governments to fashion a strategy that suits its political and social objectives. It is said to be entirely home grown, combining market economic policies with the domestic aspirations for the country's overall development. The core of the TYP is to achieve sustainable economic growth through investment and rural development. In order to achieve those prescribed goals, the government has set itself a medium term growth target of 8 per cent. Accelerating economic growth is expected to be accomplished by raising the rate of investment from the current rate of around 30 per cent to around 35 per cent of GDP, in addition to improving efficiency and productivity of the economy and business. The domestic savings rate is expected to increase to 25 per cent of GDP from the current level of 18 per cent while the investment savings gap is to be financed through the external sources. The TYP aims to create an economy largely driven by the private sector, which is more dynamic and regionally integrated.

Based on the overall target set, the TYP proposes several strategies for implementation in key development areas. These comprise agriculture and irrigation, industry, infrastructure, tourism, livelihood and social protection, education, health, sports and culture, labour force, science and technology, environment, public administration, development in the conflict affected areas, and an overall medium-term macroeconomic framework. The policy document consists of a vision statement for each sector, sectoral policy goals and broad strategies.

The development plan for the agriculture sector of the TYP places particular emphasis on food security, small farmer development and livelihood improvement, while overall competitiveness of the sector is expected to be achieved through application of modern technology, improved cultural practices and steering for commercially viable agriculture. The industrial sectoral plan is aimed at diversified and high value added industrialization through SME sector development, FDI promotion, and greater private sector participation in investment and innovation and productivity enhancement. The strategies for key infrastructure sectors and social sectors include development programmes for roads, ports, power, education and health, particularly in rural areas. The government has accorded high priority to accelerate growth in lagging regions under the *Gama Naguma* programme and to develop rural infrastructure under the *Randora* programme in key infrastructure areas. Equal importance has also been placed on human resource development through *Nana Sala* and E-village initiatives.

In the tourism sector - considered a sector with high potential for employment generation and foreign exchange earnings - the policy thrust expected to be developed is to cater to high spending tourists from emerging markets. The livelihood development and social protection framework of the TYP consists of a three-pronged strategy of livelihood development, social protection, and disaster mitigation and risk management with the broad policy objective of empowering the people to develop and sustain their livelihoods and improve their standards of living. The priority theme for the proposed external trade and investment policies under the TYP is to achieve higher export growth while efficient import substitution is also to be promoted. In addition, the TYP also stresses the importance of developing the conflict affected areas where capacity is currently in place but implementation has been hindered due to the ongoing conflict. The overall macroeconomic framework has been designed to strengthen the fiscal framework while the monetary policy framework focuses mainly on mitigating inflation. Critically, the TYP has given emphasis on achieving peace as vital for the overall success of the development strategy.

The government has articulated a clear set of priorities: investing in infrastructure, health and education, and in improving agricultural productivity. These are clearly the right objectives; the problem is how they are to be achieved. In this respect, the TYP has certain weaknesses. While it has covered most of the policy issues currently pertaining to Sri Lanka, it has not adequately addressed the implementation aspect of the overall sectoral goals. In some instances, the identified target policy strategies for the sector need to be strengthened and strategies prioritized. For instance, in the case of agriculture, even though the key underlying thrust of the recommended strategy is to develop a commercially viable agricultural base, this aspect has not been given enough emphasis when allocating resources to the sector. In the infrastructure sector, for instance, while the TYP has correctly identified the key issues in each sector, it lacks specific strategies to implement the proposed policies. Thus, in many instances, the TYP offers a policy direction rather than giving a concrete implementation strategy.

Drawing up a comprehensive implementation strategy is beyond the scope of this paper. What it does aim to do is to offer a detailed examination of some relevant sectors with the objective of examining some of the policy gaps to critically examine the proposed TYP as well as look at issues, constraints and the way forward while suggesting possible policy alternatives where necessary. The present report reviews the overall strength of the development plan and reveals some implementation challenges as well. However, the coverage of the present study is limited to selected areas in order to focus on key sectors that need to be strengthened in order to achieve the target objectives in the coming decade. As such, the areas addressed in this publication are limited to agriculture, industry, infrastructure, education, health, livelihood, environment, labour force, international trade and macroeconomic framework. It presents an overview of the overall policy framework for each sector followed by an assessment of the proposed strategies with possible prioritized policy options suggested.

2. Transforming Agriculture for Prosperity

2.1 Overall Policy Framework of the Ten Year Plan: An Overview

The agricultural sector policy framework of the TYP follows the traditional classification, comprising the non-plantation, plantation, livestock and fisheries sectors. The vision for the overall agricultural sector entails enhancement of the production efficiency of agricultural commodities for consumption, agro-based industries and for competitive exporting. Increasing the productivity of the export agriculture sector has been identified as an important strategy in the TYP in order to strengthen the balance of payments (BOP) position of the country. The government has also placed high priority to achieve high-value agriculture products by improving value addition through processing, marketing and down streaming activities. The broad policy objective of the sector, therefore, is to transform the traditional agriculture into a highly productive and commercially oriented one.

Sri Lanka's non-plantation sector basically comprises the domestic food production sector. The government's promotion scheme for rice production under the TYP includes three key elements; a guaranteed price scheme, fertilizer subsidy and concessionary bank credit. Apart from the incentives recommended for the rice sector, the subsidiary food crops are also expected to benefit from the proposed policies through

government investment on irrigation schemes, subsidized inputs, and concessionary bank credits as well as from tariff protection. In addition, with the involvement of the Department of Agriculture and the private sector, a comprehensive seed and planting material production programme is also intended to be implemented over the next several years in order to increase the availability of certified seed.

Apart from the main developments already in place in the plantation sector, some more developments have been identified under the new plan. It has been recognized that the future prospects of the plantation sector depends heavily on its competitiveness in international markets. Therefore, the role of research, as well as cost reduction strategies have been emphasized in the new policy framework.

The policy goal of the livestock sector is to become more self-reliant in milk, improve animal nutrition and health, and promote self-employment. Therefore, the TYP policy is aimed at encouraging private sector involvement in commercial livestock activities, while the public sector role is expected to be limited to regulatory activities and in areas where investment opportunities are not commercially attractive to the private sector. In addition, a proposed livestock breeding project is expected to focus on improving the supply of quality cattle and buffalo semen for artificial insemination services. Furthermore, skill development programmes for farmers and other personnel engaged in the sector is planned to be carried out to harness the full potential of the sector in income generation, while some measures such as accreditation of private laboratories for disease investigation, leasing of estate infrastructure for private investment in animal disease diagnosis, etc., is planned to be carried out to address environmental problems of livestock production.

In the fisheries sector, the key focus is aimed at sustainable use of aquatic production through a fishery management programme, diversification of production and exploitation of off-shore deep sea fisheries. Public investment in infrastructure and marketing is also to be given priority in these developments.

Certain cash crops such as cashew and palmyrah have been identified as key sources of employment generation and poverty reduction given their potential as export products, and strategies have been proposed to enhance their production capacity. In addition, under the new policy framework, the private sector is being encouraged to achieve the goal of self sufficiency in fruits, and apart from fruits and vegetables, export of flowers, cut flowers, foliage, live fish and poultry products are also promoted by offering various incentives. Several policy strategies have been suggested to develop poultry, aquaculture and sugar sectors with the government injecting necessary cash flows for these sectors through the Non-Comprehensive Rural Credit Scheme (NCRCS) of the Central Bank of Sri Lanka.

The proposed land policy of the TYP comprises strategies aimed at clear land rights, productive use of lands and conservation, institutional reforms for efficient land administration and management, development of a land information system, etc. These are expected to complement agriculture sectoral policies and boost economic activities in the agriculture sector overall.

The broad objective of the development strategy of the irrigation sector is to achieve more productive use of water by utilizing modern irrigation techniques. The policy plan envisages setting up of multi-purpose

irrigation systems, small tank developments, and trans-basin diversion of water to link existing rivers and irrigation systems. The primary strategies aim at improvements in productivity and irrigation efficiency, investments in rehabilitation of existing irrigation systems, investments in development of new irrigation systems, investments in watershed development especially in the context of minor and medium irrigation schemes, improvements in water allocation system, rehabilitation of small tank and minor schemes as well as institutional reforms and capacity building.

All these policies under the TYP have been defined in a much broader economic context of contributing to regionally equitable economic growth, improvements in rural livelihood and enhanced food security while targeting to achieve an annual growth rate of over five per cent during the plan period in all the above sub-sectors.² The following section reviews the policy document to identify the existing policy constraints and to suggest means in which policy instruments could be changed or developed to make them more effective in order to achieve development goals and targets.

2.2 Assessment of Proposed Strategies and Policy Options

The prime strategy for overall agricultural sector is to be competitive in production and marketing by increasing productivity, lowering production costs and value addition. Within this broader framework, there is a set of sector specific strategies in non-plantation, plantation, livestock, irrigation and land sub-sectors as explained below.

2.2.1 Non-plantation agriculture

The policy document recognizes the importance of maintaining and developing commercial production and strengthening international competitiveness. Thus the major underlying thrust of all the strategies have been focused on technological advancement in order to transform the subsistence agriculture to a commercially oriented and highly productive sector which is viable and competitive domestically and internationally. However, when it comes to allocation of resources, this aspect has been totally ignored. In the proposed investment plan, only 1.9 per cent of the total investments on agriculture has been allocated to technology research while 12.5 per cent has been allocated to bio and soil research. The basis of the allocation is not clear. Further, 33 per cent of the total agricultural budget has been allocated for the fertilizer subsidy and this needs further explanation on economic grounds.³ The said objectives can only be realized by allocating a large share of the investment on technological research with additional allocations on supporting agricultural extension. Since the whole process of transforming agriculture into a commercial sector depends on the technology generation and dissemination, this matter should be seriously addressed. Proposed strategies for the sector can be recapitulated as follows.

Productivity and quality enhancement to improve competitiveness mainly by promoting high-tech agriculture through investment assistance; regulatory measures for quality inputs and eco-regionally focused

² Sri Lankan agricultural sector achieved this target only 4 times during the past two and half decades with over 5 per cent growth in 1981, 1983, 1985 and 1990. The average growth of the sector during the last 4 years was 1.2 per cent with 1.5 per cent growth in 2005.

³ Fertilizer subsidy has not yet proved its capability in improving productivity and it is recognized as an economically and environmentally unfriendly short term strategy.

technology generation; providing legal instruments for controlling un-hygienic production and processing practices and for the adoption of quality assurance mechanisms, in order to comply with international food safety standards. Data and information on production, production costs, constraints in input supply, harvesting and marketing should be collected and a set of commodities in which the country has or likely to develop comparative advantage should be identified and development plans and strategies should be formulated accordingly. Research and Extension to generate, and disseminate technology should be enhanced as a long term strategy while providing targeted incentives up to a certain extent, in the short run.

Promotion of competitive import substitution through the provision of adequate incentives⁴ to the domestic agricultural sector and special safeguard mechanisms to protect some identified special products without resorting to heavy protection or unduly liberal import policies. This further makes an attempt to transform food items which are in the net importer status to net exporter status.

Enhancing agricultural research and technology by increasing budgetary and human resources allocation on dynamic agricultural research with a focus on much broader aspects like livelihood improvement, rural development, food security and agro-based industries. Further, strengthening private sector involvement in agricultural research and development is considered important. There is a growing need for streamlining of the research system to deal with local research priorities parallel to demand driven and problem oriented research. Effective collaboration should be built up between government and non-governmental research institutions and universities to harness the maximum capabilities and prompt dissemination of the findings. Promoting research on the utilization of unexploited indigenous genetic potentials, especially fruits and medicinal herbs; on water saving crop production techniques and non-seasonal crop production and small and medium scale agricultural machinery should be given enough emphasis, especially in the long run.

Customize the technology dissemination through extension services by re-designing and strengthening existing extension approaches with adequate budgetary and human resources investment and recruitment of appropriate personnel. Training the cadre on effective and efficient delivery mechanisms, active farmer participation and involvement of community based organizations while ensuring effective linkages between the research and extension system are deemed to be important in the extension reform process. Since the present extension system experiences a huge gap between the top and the grass root level, the establishment of an active central body to coordinate provincial level extension service is crucial. Further, the present extension system concentrates on the production aspect. However, in the present context, improving competitiveness, providing market information, assisting in business decision making and diversification into processing and value addition are of prime importance. The extension education programme for the future should encompass these new aspects as well. Establishing a demand driven, fee-levying extension system in addition to the conventional system, public private partnerships in extension delivery and developing information technology infrastructure to enable easy and speedy access to information by all stakeholders have to be given careful consideration.

⁴ These incentives include GPS, fertilizer subsidies, concessionary credits, paddy purchasing programmes, etc.

Reduction of cost of production and increase farm income mainly by reducing high post-harvest losses (especially in rice, fruits and vegetables) and by increasing land and labour productivity. This is to be achieved by introducing improved post-harvest technologies and management practices including proper harvesting, cleaning, packaging, handling, storage and transportation. Reduction on pest and disease control costs by introducing Integrated Pest Management (IPM) techniques and promotion of balanced application of nutrients and the use of organic fertilizers as a long run strategy while reducing the fertilizer subsidy in the medium and long run are envisaged.

Development of marketing and allied infrastructure by international trade promotion and branding for primary and value added products with export potential (Trade facilitation) and strengthening trader-farmer contracts through farmer relief programmes (promoting contract growing and forward contracts for stable prices) is a major intervention envisaged. Need-based state intervention while maintaining market competition and rural infrastructure development through the regional development projects are two other avenues of progress. Private sector investment in food marketing should be encouraged. Linkages between producers and the modern supply chain actors such as processors, exporters, supermarkets and hotels should be facilitated. Technical assistance, training and other support should be provided to modernize and upgrade facilities to international standards especially in the area of post-harvest management, good agricultural practices (GAP) and food safety. Grades and standards should be promoted and enforced. Maintenance of buffer stocks of essential commodities is useful to stabilize prices and consumption.

Providing a stable trade policy regime through liberal trade policies supported by adequate safeguard measures (eg., SSM for some selected special products) to avoid uncertainties in the market (to ensure price stability and predictability) and to promote investor confidence. Negotiation capacity of trade agreements have to be strengthened and the private sector should be assisted on compliance with trade agreements' export market requirements, domestic product quality and food safety standards. Ad hoc tariff amendments should be avoided while introducing a two tier tariff system for lean and harvesting periods.

Enhancing the value addition and agro-based products of potential agro-industrial crops should be identified and their cultivation should be promoted. Vertical diversification that uses the surplus labour and adds value to the farm output is a valuable strategy. Marketing of agro-industrial products should be promoted with the coordination of relevant institutions.

Ensuring adequate and continuous supply of quality seed and planting material to the farmers at a reasonable price by a vigorous programme for development of basic and foundation seeds and planting materials by the public sector, promoting private sector and farmers in producing seed and planting materials with public sector certification, keeping a buffer stock of certified seeds, enhancing quarantine services to ensure a better flow of improved seed and planting materials, improving the productivity and reducing cost of production in seed farms through improving technical skills of the staff and proper incentive schemes.

Strengthening rural financing facilities by introducing farmer-friendly credit policies and government refinancing schemes. Promoting other avenues for supplying credit to the agricultural sector such as bank out-

reach programmes and agricultural insurance facilities have also been identified as important. However, it is necessary to introduce supervised credit for agriculture to maximise the efficiency and ensure access to resources by poor producers.

Increasing stakeholder participation by recognizing the need and importance of CBOs, farmer organizations and the private sector as partners in agricultural development with the state sector institutions. Improving the linkages in participating in policy formulation and implementation; identifying essential public and private goods and facilitating smooth transfer of activities from public to private sector with possible partnerships while considering the interest of the stakeholders are also important.

Minimizing environmental degradation by developing adequate institutional and infrastructural capacity for effective implementation of laws and regulations; recognizing the need to manage chemicals to minimize potential health and environmental impacts; preventing the entry and spread of foreign pests and diseases; promoting ecological principles such as IPM, IPNM and GAP in agricultural production and phasing out the fertilizer subsidy while promoting organic cultivation.

Enhancing the agricultural export base by ensuring government support in expanding all forms of agro-based exports and value added products in cultivation and marketing/trade. Concepts like "export villages" and "model farms" can be usefully employed for this purpose. Under-utilized lands should be identified and diverted to model farms. Necessary technical and financial assistance should be given to popularize poly-house cultivation.

2.2.2 Plantation sector

The plantation sector strategies should essentially link the different stages of the whole production-marketing process of each crop to realize the full potentials of the sector. Apparently most of the lands under plantations are not effectively utilized and generating only marginal income gains. Hence, appropriate measures need to be taken to revitalize the plantation sector, which once used to be a prominent sector in the economy. Research and development on more intensive land use with multiple enterprises to optimize the land use and production technologies that improve productivity of labour, especially in the long run, of all the plantation crops and providing replantation subsidies to induce optimal replantation are the immediate interventions needed to uplift the performance of the sector. Moreover, a better policy on human development and social welfare of estate workers is needed to counter labour force depletion and improve labour productivity. The proposed specific strategies for the sub-sectors are as follows.

Tea sector

Increasing competitiveness of the sector through modernization of the sector by means of targeted investments in the field, factory and market development, building brand recognition, unique design of packaging with low cost locally available materials, establishing joint ventures with market leaders, promoting demand driven research especially in product development/value addition.

Promoting efficient and sustainable use of tea lands by paying due attention in replacement and infilling for diversification and multiple enterprises (crops, livestock and forestry), integrating tea land use strategy

with the national land use plan, especially to safeguard fragile environments and introducing mixed planting of forests where water resources are endangered.

Rubber sector

Promoting rubber cultivation by improving rubber planting material availability for introducing rubber cultivation to non-traditional areas, training of rubber tappers to meet the present scarcity and encouraging field supervision to aid land quality and productivity maintenance through the introduction of an incentive scheme for field level extension workers.

Developing domestic and export markets for rubber products and promote continuous supply of products through demand driven research and product development, market research to seek potential markets, increased production of value added products, maintained quality of RSS rubber in the long run and incentives on machinery imports and technological advancements. Improving standards of factories and introducing waste water treatment to the effluent from rubber factories are also deemed important.

Coconut sector

Increasing production of coconut by the means of increasing productivity of existing coconut lands through educating the growers on proper production techniques (moisture conservation, breeding improved varieties, integrated farming with other crops and livestock), intensifying the incentive system for replanting and new planting of coconut, expanding coconut in non-traditional areas, promoting large scale plantations minimizing heavy fragmentation of productive coconut lands and conversion to other uses based on the land suitability classes and improving extension services through increasing grass root level staff and providing them training.

Promoting export based coconut products through increasing investments on research and expanded extension services on product development, exploring opportunities in potential markets, establishing links and having a continuous dialogue with local organizations of coconut growers and exporters in undertaking such activities and encouraging small and medium scale entrepreneurs in value addition by providing needed facilities (credit, knowledge, etc.).

2.2.3 Livestock sector

Dairy sector

There is a huge scope for the development of the dairy sector in the Dry Zone and the major drawback in the proposed livestock sector strategies is the lack of a framework to explore the opportunities in the non-traditional dairy producing areas, especially in the dry zone. The strategies proposed for the dairy sector are summarized as follows.

Increasing production as well as the productivity in the non-traditional dairy producing areas, especially in the dry zone by upgrading and the sustainable use of the breeding stock, setting up proper cross breeding programmes, developing local breeds and animal feed to suit the dry zone conditions, opening up new lands for dairy farms, introducing sustainable dairy producing system to suit the agro-ecological area i.e.,

integrated systems, substantial provision of veterinary public health, establishing incentive schemes to increase private sector participation and implementing a promising research and extension service in the Dry Zone.

Promoting small scale dairy producers by providing the needed assistance from physical capital to technology and driving them towards more commercially oriented production. Their participation should be encouraged at the beginning by addressing the basic problems of land, finance and knowledge while guaranteeing them of assured markets (regional milk collecting centres) and prices (guaranteed price schemes) for their products.

Adequate availability of feed resources and nutritional management of dairy animals can be achieved through improving technology to produce quality feed, processing and preserving fodder for future use, educating farmers of strategies to cope with seasonal food availability patterns depending on the agro-ecological area, identification of new feed rations made of locally available ingredients at a low cost and feed resource management according to the growth stage.

Continued education of farmers on disease prevention and health management (mastitis, vaccinations, deworming), animal care, indiscriminate use of antibiotics and hormones and their harmful effects, housing prophylaxis, reproductive management, resource utilization and waste management, market opportunities, handling milk and milk products to maintain the standards and adoption of on-farm milk preservation methods.

Organizing milk producers into strong groups to obtain an assured and fair price for their produce, to get hold of pricing and marketing information and technical know-how, for channelling of investments, improved utilization of resources through integration horizontally as well as vertically, to establish links with markets and thereby reduce post-production losses and to build up small to medium scale processing units owned by the small holder producer cooperatives.

Ensuring smooth operation of the system and regulation by providing the needed infrastructural facilities, processing facilities, developing and updating national standards for milk products, establishing small and medium scale milk processing units, laying down animal disease control principles, improving veterinary public health, implementing substantial measures for disease investigation and control (quarantine regulation), investing adequately on research while protecting and conserving the indigenous genetic resources, developing local level extension system to fill up the information gap, encouraging private sector investment at all levels of the supply chain through favourable imports and fiscal policies and setting up a national coordinating agency to bring about the scattered responsibilities into an umbrella body.

Poultry and the Meat sector

Lack of a programme to attract the farmers to the non-traditional meat producing sectors where a huge scope for development exists and inability to identify an incentive scheme to promote small scale producers to commercial level are shortfalls in the proposed strategies in the plan. Immediate state involvement for the development of the sector can be presented as follows.

Enhancement of private sector investment in breeding, hatching (poultry), rearing and processing through introduction of new credit schemes, maintaining a favourable policy on imports of food, hormones and meat products, improving research on farming and processing, quick feeding of research outcomes to the producers through an extensive extension system, exploring opportunities to promote buy-back systems and other forms of integration of small scale producers while securing their sustainability.

Encourage the non-traditional meat producing sector by creating awareness on the market opportunities, facilitating access to needed physical capital through micro-credit programmes, introducing low cost feed and housing material, providing technical know-how on production and processing through improved research and a developed local extension system and popularizing of such products through the national school system and media.

Promoting commercial scale farming by providing the needed environment for the transformation from the backyard system thus enabling them to enjoy the advantages of economies of scale while reducing the average cost of production; facilitating backward and forward linkages, promoting horizontal as well as vertical integration in the marketing channel through suitable incentive schemes and state intervention as the regulating and monitoring body.

2.2.4 Land

Strict enforcement of the land use policy which is long overdue and a development of a well designed programme for the best use of the under-utilized lands are the prerequisites for development and effective use of the land resource of the country. Even though securing land rights is an important issue, as stressed in the plan, serious thought has to be given to avoid the possible long term equity implications. Further, adequate safeguard mechanisms will have to be implemented to protect the disadvantaged and vulnerable groups.

Instituting a national land use policy addressing the issues of delineating a land use classification and limiting agricultural land uses only to suitable land classes, strict adherence to land suitability evaluation or else zoning practices in rationalizing land uses for agricultural and development purposes, amending the Soil Conservation Act to prevent improper land uses, identifying activities leading to degradation of land and initiating conservation practices in susceptible areas, preventing further encroachment of state lands and environmentally sensitive areas by prohibiting impromptu regularization of encroachments, revising reservation boundaries and strict conservation of environmentally valuable forests and reservations through strict enforcement of regulations on land use and conservation and severe penalties on violation.

Effective use of scarce land resources for agriculture, settlements and development purposes by identifying regionally available unutilized state lands, undeveloped or under-developed lands, unproductive or under-utilized agricultural lands and opening them up for best uses ensuring efficiency as well as equity, bringing in laws to prevent further fragmentation of lands in agriculturally progressive areas, allowing conversion of under-utilized paddy lands into other agricultural uses or releasing them for development purposes after proper environmental assessment and creating an environment for competitive markets for land transactions (by facilitating development of credit markets).

Rationalizing land ownership/tenure for efficient use of land resource and to circumvent the conflicts associated with land by revising the out-dated regulations on the ownership, transactions and inheritance of the alienated state lands, removing restrictions on rental transactions of such lands thus strengthening and securing user rights as well as increasing access to land by efficient farmers.

Strengthening the organizational and institutional framework for land management by bringing in all the scattered institutions with duplicating responsibilities under an umbrella body, coordinating all the activities of mapping, surveying, land use planning, zoning, resolving land disputes and other land related problems, land information and land banking system thus executing an integrated and consistent approach in managing the land resource of the country.

2.2.5 Irrigation

Integration of the irrigation sector strategies with the land development strategies and coordination of the scattered activities of different agencies involved in the management of irrigation resources are key to the development of the irrigation sector. The proposed strategies can be categorized under broader areas as follows.

Restructuring the organizational and the institutional set-up to improve the efficiency of water allocation, management and financing activities since overlapping and duplicating responsibilities hinder the efficient use of resources leading to misallocation. Activities of different agencies should be well coordinated at the national as well as the regional level.

Increasing investments on modernization of irrigation technology and irrigation systems for an effective and wider supply of irrigation water. It is important to identify the best practices in the region and to promote pilot scale projects while important and viable projects can be implemented after thorough feasibility studies in the needy areas. Making best use of the old irrigation systems, especially the abandoned small tanks in the Dry Zone by investing in rehabilitation programmes is more important than going for totally new projects.

Promoting effective collection, conservation and use of water in the dry zone areas by introducing low water consuming enterprises and cost effective irrigation techniques with low water requirements and high water distribution efficiency (drip irrigation), improving access to ground water irrigation through promotion of agro-wells and low cost water pumps, assisting to adopt and implement the rain water harvesting apparatus.

Improving community participation in operation/maintenance, management and funding in local irrigation systems and watershed improvement by establishing close links with farmer organizations and other community based organizations, developing an approach to systematically transfer the responsibility of managing small irrigation systems by local communities without compromising the quality and the level of the service, conferring legal rights to farmer organizations to charge a land based levy for operation and maintenance of irrigation facilities, and assisting activities of such organizations (input and output marketing, infrastructure development), revitalization of small tanks with the assistance of local communities while providing guidance and needed financial support.

3. Sustainable and Balanced Industrial Development

3.1 Overall Policy Framework of the Ten Year Plan: An Overview

Industrial policy strategies of the TYP advocate a two-pronged approach where domestic enterprises can be supported while encouraging foreign investment. It envisages higher value added and productivity driven industrialization in line with a broad-based policy target of achieving 34 per cent of industrial sector contribution to GDP in 2016 from the current level of 27 per cent in 2005.

The TYP identifies ten broad policy initiatives with sub-initiatives under each as follows: 1) developing national capacity through entrepreneurship development, development of a multi-skilled labour market, introduction of multiple financial tools and promotional measures on enterprise support services/business development services; 2) strengthening national innovation system through public-private partnership and establishment of a Technology Development Fund; 3) developing micro-enterprises through capacity development, establishment of incubators, cocoons and mini-industrial estates, outreach by formal Institutions for the delivery of microfinance and savings based microfinance schemes; 4) improving the competitiveness of small and medium enterprises (SMEs) through cooperation among SMEs, joint R&D work and skill development programmes and setting up of industrial estates, business linkages and an apex authority for SMEs; 5) ensuring the availability of infrastructure facilities through industrial zones and techno-parks; 6) developing industrial sub-sectors through cluster initiatives and specific strategies to improve the competitiveness of each cluster; 7) promoting geographical industrial clusters based on geographical concentrations of enterprises as a regional development strategy; 8) promoting industrial exports by removing barriers to efficient and accurate information on markets, products and technologies, etc., and financial resources at internationally competitive rates; 9) promoting FDI as a primary target of the overall policy framework through several BOI strategies; and, 10) harnessing industrial complementarities by facilitating offshore investment by local industrialists to avoid duplication of industrial capacities and re-engineering public enterprises to make use of regional industrial complementarities.

The TYP further envisages specific roles for stakeholders with the government playing a dual role as a facilitator and a regulator for industrial development; private sector playing the prominent role in investment; cooperate sector playing an important role in adding value to local resources; NGOs sector playing a supporting role in developing the SME sector; and trade unions playing an important role in maintaining industrial peace and raising productivity.

3.2. Assessment of the Proposed Strategies and Policy Options

3.2.1 Some policy issues

The broad objective of the TYP is to achieve diversified and high value added industrialization. The policies identified have been defined in a broader economic context of strengthening the domestic industrial base and targeting foreign direct investment inflows. The manufacturing sector under the TYP is expected to be developed to provide a solid foundation for the country's overall development by means of employment generation, growth acceleration and income distribution. The main focus of the proposed

strategies is thus on SME sector development, FDI promotion, greater private sector participation in investment and innovation and productivity enhancement.

Given Sri Lanka's increasing integration with the global economy - including through preferential bilateral and regional trade initiatives - the country's heavy reliance on a single labour intensive industry such as garments, remains a source of concern. The overall industrialization strategy in the coming decade has to shift away from dependence on a limited number of labour intensive export-oriented industries towards a highly productive and diversified industrial base. The policy strategies to achieve such an outcome, however, remain debatable. For example, under the Master Plan for Industrialization report of 2000, selective industrialization is the broad strategy suggested, namely the "Rainbow Plan". However, the selective approach is not addressed under the TYP as a possible policy option. The following section assesses some strategies for industrialization recommended by the Rainbow Plan and other policy documents vis-à-vis strategies outlined in the TYP.

3.2.2 Policy strategies for industrialization

Whether industrialization should be carried out in a selective and strategic manner remains subject to debate. The Rainbow Plan has identified three target "globally-linked" industries; apparel, leather and rubber and four target "policy-driven" industries; electric/electronic, plastic, machinery and information technology industry as priority sectors for development. The selection has been on the criteria of export strength, competitiveness, prospective trade, profitability, productivity, marketability and investment potential while capacity for employment generation, value addition, structural diversification and linkages between industries were also considered. The Plan suggests that different and specific policies should be introduced to globally-linked and policy-driven industries as the initial conditions and future prospects of these industries differ substantively from each other.

Globally linked industries are relatively well established firms in the economy in terms of their production and export capacity and as such, policy initiatives for these industries should be to promote their competitiveness in the global market. The policy driven industries on the other hand, should be strategically developed as they depend heavily on government policies to expand as their exports are negligible with a heavy dependence on imports. According to the Rainbow Plan, growth targets should be set first and based on those targets, assistance should be devoted to establish the foundation for industrialization through institutional reforms, infrastructure development, and fiscal incentives in the next phase. Thus, growth is expected to be lower in the first phase relative to the second half. The latter phase will be accompanied by fiscal incentives, R&D support, growth accumulation and negotiations for trade agreements outside the region in order to accelerate the growth targets arrived at.

The TYP on the other hand, advocates the concept of industrial sub-sector clusters where each cluster includes industries related to every part of the business chain. The thrust industries have been categorized into two main groups of "resource-based" industries and "technology-intensive" industries while different and specific strategies have been suggested for each cluster to improve the competitiveness. This, to a

certain extent, is in line with the sectoral approach suggested under the Rainbow Plan in promoting sub-sector industries. However, the TYP has not identified select target industries to be promoted strategically while the recommended industrial sub-cluster approach lacks the specific direction in designing strategies and granting of various incentives for target industries.

The role of the state should be that of a facilitator rather than a producer. An issue pertinent to policy makers is how to identify the particular product markets that Sri Lanka has a comparative advantage in. This question is best addressed by industrialists who have an informational advantage in this area - the entrepreneurs who work with information and price signals in the global market. As such, the role of the state should be limited to a facilitator rather than a producer.

A consultative approach to policy decisions should be adopted. The private sector participation in the government policy making is limited and public-private dialogue is insufficient. Policy decisions relating to the industrial sector need to be arrived at through a transparent, consensual, consultative process - including the views of key stakeholders in the industrial policy space such as entrepreneurs, labour, consumer groups and other civil society entities such as academia and media along with technocrats representing the interests of the state.

A consultative approach needs to be implemented in a manner that would minimize the possibilities of "capture" by vested interest groups. This would require a non-partisan decision making process that institutionalizes elements of good governance such as transparency, accountability and operational independence. In this context, revitalizing the process introduced under the Industrial Promotion Act No. 46 of 1990 is recommended. This structure provides an opportunity for private sector entrepreneurs to voice their concerns and get collective responses. The members of the Industrialization Commission (IC), Advisory Council for Industry (ACI) and Regional Industry Service Committees (RISC) are stipulated in the legislation and they are bound to take decisions.

It is important to set up an effective framework through necessary administrative, legislative and institutional reforms. Lack of a comprehensive industrial policy has resulted in duplication of functions and thus, better cooperation and coordination between the Ministry of Industrial Development (MID), the Ministry of Science and Technology (MOST), the Ministry of Vocational Training and Rural Industries (MVTRI), Board of Investment (BOI) and Export Development Board (EDB) is important for sectoral industrial development.

A paradigm shift from resource-based industrialization to knowledge-based industrialization is needed to ensure the long-term sustainability of the manufacturing sector. The fundamental problem of Sri Lanka's industrialization is its heavy reliance on a labour intensive export manufacturing sector. Even though a labour intensive export manufacturing structure was valid at the early stage of industrialization given its emphasis on employment generation and income distribution, after nearly three decades, the long run sustainability of the Sri Lankan industrial sector globally remains unclear. There is a recognized need for the industrial sector in Sri Lanka to shift from resource-based industrialization to knowledge-based industrialization.

Sectors such as machinery, electric/electronic and IT industries have the potential to address the gap in knowledge-based industrialization in Sri Lanka. Knowledge-based and technology-based industrialization will require development of IT, education and training as well as an efficient mechanism to transfer information on markets, products and technology. Promotion of linkages between industries is of particular importance in this regard. Business linkages with global enterprises will facilitate technology-based industries while the promotion of FDI, joint ventures (JV) or partnership with global enterprises that have a direct bearing on technology transformation, international procurement, sub-contracting beyond borders and market access. Linkages with local enterprises in the same sub-sector will also enhance productivity and profitability. The apparel and other major export industries, which are currently in place as competitive sectors, also need to be further developed through technology enhancement, skill development, value addition and marketing strategies in order to remain competitive in the existing markets. This in turn will address the issues of lack of global market insurance and export diversification currently inherent in the industry.

The TYP has emphasized the importance of innovation and R&D work in industrial development. There are 19 public research and development institutions involved in manufacturing technology related research and development (R&D) in Sri Lanka. The TYP envisages private sector involvement in R&D and as such, suggests strengthening the National Innovation System (NIS) through public-private partnerships. The TYP has identified the importance of local industry-oriented R&D in industrialization and therefore suggests a close relationship and dialogue between industrial clients and public R&D institutes. However, one of the fundamental issues in Sri Lankan industry related R&D is that research is not demand driven. What is lacking is a mechanism by which industrialists have an incentive to invest money on R&D. Public research institutions do not have sufficient incentives to allocate their limited resources in line with market signals. Thus, the innovation system should be more market-driven.

In parallel with technology upgrading, human resources should also be developed in order to better match the industrial needs and facilitate the movability of labour between industries. It is expected that the globally linked manufacturing sector will achieve faster growth, absorbing labour from other sectors in the economy. The government in collaboration with the private sector needs to provide training and educational facilities to improve skills of the labour force to mitigate existing skills rigidities and thereby improve flexibility for labour movement.

Higher industrial growth can only be achieved through higher investment and investment efficiency and thus, policies to promote inward FDI is critical. Presently, Sri Lanka is considered as an under-performer in attracting FDI. In countries such as the Philippines, Thailand and Vietnam annual investment inflows have reached or surpassed three per cent of GDP, while in Sri Lanka inflows average one per cent of GDP. Sri Lanka's poor performance is largely due to the gaps in FDI promotion strategy such as reactive FDI promotion strategies, less effective nature of tax holidays, over-extended procedures at BOI for FDI approvals, licence facilitation and poor aftercare for existing investors, while political instability, lack of technical manpower and reliable SME suppliers and weaknesses in physical infrastructure have also hindered the growth in FDI.

Nonetheless, Sri Lanka has a locational advantage in attracting FDI inflows given its relatively cheap labour, and access to a large regional market. Thus, a well planned FDI promotion strategy should be implemented in order to accelerate FDI in target industries. Investment should be selectively promoted in identified target industries while these investments should be focused on several target export destinations. Several focal products under each industry need to be identified in order to be selectively promoted. The Rainbow Plan, for example has identified the apparel, leather, rubber, machinery, plastic, electric and electronic industries for such promotion.

Investment promotion should be accompanied by infrastructure promotion.⁵ According to the Investment Climate Survey of the World Bank (2005), Sri Lanka performs poorly on many investment climate indicators. If the country is to remain attractive for foreign and local investments, policy strategies should be immediately implemented to overcome the most critical issue governing Sri Lanka's investment climate - i.e., improving access to and the quality of energy and transport. In addition, Sri Lanka ranks 89th in the world and 4th in the region, behind the Maldives, Pakistan and Bangladesh, on the ease of doing business in 2006. Sri Lanka performs comparatively well in business start-up and closing, dealing with licences and trading across borders among the South Asian economies but the country lags far behind fast-growing economies in Asia. Relatively high cost of doing business in Sri Lanka also has a direct bearing on attracting FDI inflows. The TYP has identified strategies to attract FDI, primarily for infrastructure development. However, FDI would not flow into infrastructure projects unless a proper regulatory system is established since it is a necessary condition to reduce uncertainty. In AT Kearney's 2004 FDI Confidence Index, government regulation is identified as the most frequently cited critical risk to corporate operations, with 64 per cent of global investors highlighting this as being amongst the most critical risk.⁶

Apart from the major physical infrastructure constraints, yet another significant market failure, which requires government intervention, is with regard to business related information in rural areas. Isolated due to poor physical infrastructure and telecommunications, rural business owners and entrepreneurs suffer from lack of access to information about changing consumer demand in large population centres - both domestically and internationally - as well as information about possible areas of linkage with other firms. Fuller information regarding these issues as well as changing external economic conditions (i.e., new trade agreements) and changing domestic regulations would make it significantly easier for existing and potential industries to successfully respond to new economic opportunities.

A national strategy for SME development is needed. The manufacturing sector in Sri Lanka is characterized by a dual structure of large FDI enterprises and many SMEs with limited economies of scale. Even though the SME sector in Sri Lanka accounts for almost 90 per cent of the total establishments in the private sector, SMEs have inherent problems and constraints imposed by low levels of technology, high production costs, lack of access to capital and high cost of capital, lack of know-how to deal with government procurement

⁵ Recommended strategies of the TYP as well as the alternative policy options for infrastructure development in Sri Lanka have been discussed in detail in Chapter 3.

⁶ FDI Confidence Index (2004), The Global Business Policy Council, Volume 7, available at: http://www.atkearney.com/shared_res/pdf/FDICIOct_2004_S.pdf.

procedures and lack of entrepreneurship. As has been correctly identified both in the TYP and the Rainbow Plan, SME development is key to enhancing the domestic industrial base and increasing domestic investment flows in the sector.

The White Paper on a National Strategy for SME Development in Sri Lanka advocates 14 strategic elements that need to be addressed in order to develop the SME sector, namely; public policy development, institutional reforms, better coordination among institutions, development of staff and institutional capacity, increase in access to finance, technology enhancement, increase in access to information and markets, business development services, linkage formation, infrastructure development, setting up of necessary regulatory framework, industrial relations and labour, development of entrepreneurship skills and retraining and concerns over environmental issues.

Most of the strategies recommended in the TYP for SME development are almost in line with the White Paper even though the latter consists of more specific and detailed strategies and targets. Nevertheless, the TYP recommendations comprise broad, but feasible policy initiatives. More importantly, the strategies aiming at improvements in competitiveness through cooperation and concentration are of particular importance in developing linkages between SMEs and large scale industries. Thus, restructuring of industrial sector activities should be encouraged through cooperation among SMEs, mergers, joint ventures, joint R&D work, etc., so that greater concentration will enhance their competitiveness in the domestic as well as the global market. Concentration and cooperation can also be promoted through collaboration in business activities. The concept of International Procurement Operation (IPO) is valid in this regard and it is able to create a foundation for organized-based business activities that are more profitable or less costly than those of individual business activities (such as import of raw materials, etc.). Financial and fiscal support measures recommended under the TYP for SMEs include concessionary loans at low interest rates, fiscal incentives to promote introduction of advanced technologies, marketing, training and R&D, effective credit guarantee and tax incentives.

Rural industrialization via SME development can address regional inequities. Given the lop-sided growth pattern that has evolved, biased heavily towards the Western Province, rural communities have been left out and marginalized from the mainstream benefits of export-led growth. Thus, rural industrialization should be taken up as a priority strategy with the objectives of stimulating the rural economy, reducing regional poverty, countering urban migration, combating economic dualism and reducing regional imbalances of unemployment levels. However, the effectiveness of such programmes will depend on the package of concessions given to potential manufacturers, while setting up of new production houses in rural areas also depends largely on the potential international and domestic markets that will ultimately ensure a continuing demand for their products. Therefore, incentives-driven rural industrialization attempts should be accompanied by improvements to rural infrastructure facilities in order to enhance market access. Furthermore, in order to develop rural industries, the government should facilitate business linkages between firms operating on a large scale and dealing with international buyers, and SMEs operating in the

rural sector. A useful example in this regard is the forward contracts scheme facilitated by the Central Bank in the agriculture sector.⁷

Box 3.1

Rural Industrialization Efforts in Sri Lanka

Decentralization of manufacturing firms from FTZs to rural areas has been gaining increasing attention in policy formulations in Sri Lanka in recent years. For instance, a policy of declaring the whole country as an export processing zone was introduced in 1992. In addition, several schemes such as the 200 Garment Factory Programme (200 GFP) and 300 enterprise programme have been launched in the early 1990s and 2000, respectively.

The GFP programme was launched in early 1992 with the aim of setting up 200 garment factories. The major incentive for investors was the allocation of quotas, with the allocation being greater (and more valuable) the more isolated the site. Besides the inducement of quotas, various other incentives were offered, including tax holidays and credits, duty-free provisions, and access to credit. The incentive package for the 200 GFP was considered to constitute excessive subsidies on exports by the US government, prompting the imposition of a countervailing duty on imports of garments from Sri Lanka in October 1993. The 200 GFP has at present gone beyond its initial objective of generation of substantial employment opportunities for communities in rural areas towards social mobilization. Large scale manufacturing firms have taken on such initiatives as part of their corporate social responsibility and carried out several projects in order to deliver maximum social benefits to rural communities and uplift their social welfare by initiating social infrastructure projects.

The government has recently initiated a similar proposal called the 300 factory programme (*Nipayum Sri Lanka*) with the intention of encouraging the establishment of manufacturing bases in areas outside the main Western Province of the country. The BOI is the implementing agency of this programme offering various incentives and tax holidays for certain investments meeting minimum requirement of capital, employment and export requirements. However, the proposed programme has been gaining less attention of manufacturers due to the limited incentives put forward so far.

⁷ A forward contract is a legally binding agreement between a buyer and a seller whereby the buyer agrees to buy an agreed quantity of a commodity of specified quantity at a predetermined price at a future date and the seller agrees to deliver that quantity. See Weliwita A. and R. Epaarachchi (2003), "Forward Contracts: A Market Based Alternative to Government Intervention in Agriculture Marketing in Sri Lanka", Research Studies, Agricultural Policy Series No. 6, Institute of Policy Studies, Colombo.

4. Improving Access, Affordability and Quality of Physical Infrastructure

4.1 Overall Policy Framework of the Ten Year Plan: An Overview

The Ten Year Plan (TYP) has envisaged that "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." Policy attention also rests on improving access, affordability and quality of the energy, telecommunications, water supply and sanitation, and transportation sectors.

In order to reach strategic targets of increasing the accessibility of electricity, investments are to be made on grid extensions as well as on off-grid energy services. The proposed rural electrification projects are sought to be financed through government equity investments, internal funds, as well as through the funds from the national budget. More importantly, the TYP suggests urgent restructuring of existing debt of the Ceylon Electricity Board (CEB) using the savings from the proposed coal-fired power plants. Tariff structures are to be rationalized so that tariffs will meet all recurrent expenses of the CEB and will be indexed to fuel prices. In addition, a subsidy scheme is expected to be rationalized to provide a subsidy to low income households replacing the existing subsidy with a grant provided to Samurdhi beneficiaries.

The government has placed a moratorium on oil-fired power generation and under the energy policy of the TYP, priority is to be given to build up coal-fired power plants while the large/medium hydroelectric power plants will also be supplemented with Non-Conventional Renewable Energy (NCRE). Various concessions have been offered in order to encourage power plants using NCRE sources. The government also plans to increase investments on transmission and distribution network expansion according to the strategies recommended by the CEB. Furthermore, in order to improve demand side energy efficiency, several steps have been proposed such as network loss reduction, energy sector knowledge management, planning and funding, and reforms and regulatory development.

The medium term policy objective of the telecommunications sector is "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". The policy targets have been set as to increase teledensity from 7.5 in 2006 to 18.2 in 2016, the number of cellular phones from 4,284,256 in 2006 to 32,518,562 in 2016 and the number of data communications (internet and email) connections from the current level of 125,800 to 252,084 by 2016. In order to achieve the specified targets, the government envisages a better relationship between public and the private sectors given that the telecommunications sector is largely driven by the latter. In addition, tariff revisions and human resource development have been identified as key areas to further develop the sector. The efficient and optimal management of the radio frequency spectrum is also seen as vital for rural telecommunications development.

Public investment is to play the major role in safe drinking water and sanitation projects while public private-partnerships in water supply projects are also encouraged. The TYP envisages the introduction of a cost recovery tariff for pipe-borne water, while concessionary rates are to be offered to the poorest groups

as "lifeline tariffs". Other strategies highlighted in the TYP include demand management to reduce over-use of water, investments in rural water supply, strategies to increase the status of water supply and sanitation for children, integrated urban water supply management plans, dedicated water supply lines for compact city development, strategies to reduce unaccounted water-for-water, and empower urban low-income communities in operating settlement-specific water supply schemes.

Under the policy framework for the transportation sector, high priority is to be accorded for maintenance and rehabilitation of existing road networks, while selected new major roads and highways will also be built. Furthermore, policy strategies to improve the rural road network and specific programmes such as Maga Naguma are to be implemented to ensure rural mobility. In addition, it is also planned to introduce traffic management measures such as road pricing, construction of flyovers, establishment of signal lights and construction of grade separated intersections in order to effectively manage traffic congestion. Investment opportunities for public-private partnership programmes are also to be opened while the road sector institutions will be reformed. These reforms will be mainly financed through general revenue, donor finance, private sector finance and road-user charges.

With recognition of the importance of rail transportation as a large capacity public transport service, several policy directions have been recommended. Efficiency improvements through the revision of time tables, introduction of express train services and removal of speed limits for selected destinations and reduction of financial losses in the sector are of high priority. In the medium to long run, the proposed policies are aimed at sector development through operational capacity improvements, modernization, building up of new railway lines, etc.

Apart from the above policy suggestions to develop the physical infrastructure base of Sri Lanka, the TYP also comprises strategies to improve the efficiency, productivity and operational capacity of port and postal services in Sri Lanka.

4.2 Assessment of Proposed Strategies and Policy Options

4.2.1 Telecommunications sector

Competition is the driving force of performance in the telecom sector (see Appendix Figure 1). The data indicates an increase in the subscriber base with the introduction of fixed line competition in 1996, partial privatization in 1997, the ending of international exclusivity in 2003 and the introduction of CDMA licences in 2005. Competition in the mobile segment from its inception is also one of the key drivers of telecommunications sector growth.

In line with the argument that competition is the main catalyst in improving the performance of the telecommunications sector in Sri Lanka, the following policy strategies for the sustained growth of the sector are recommended.

Table 4.1
Telecom Industry Contribution to GDP

2000	2.4
2003	3.5
2004	5.5*
2005	6.6*
2006	7.4*

Source: Central Bank of Sri Lanka, *Annual Report*, various issues and The Telecom Regulatory Commission, Sri Lanka. (www.trc.gov.lk).

Note: *Telecommunications and postal sectors are both included but the contribution of the postal sector is negligible.

Policy priority for wireless technology (WLL (Wimax and Wifi)) wireless technology is seen as an economically feasible solution for developing countries⁸ such as Sri Lanka, where telecom infrastructure facilities are still relatively underdeveloped; WLL is widely used to provide broadband data connectivity to remote areas at a very low cost. For example, Box 3.1 shows the WLL experiences of selected countries in the region. In Sri Lanka, mobile teledensity is higher than fixed teledensity; as at the end of 1st Quarter 2007, mobile penetration has increased up to 30 per cent whereas fixed teledensity has increased only up to 10

per cent.⁹ Moreover, an increasing trend in mobile usage - up to 40 per cent in the next couple of years¹⁰ – is forecast. In the case of CDMA phones there was nearly a 120 per cent increase in 2006 when compared to 2005 (calculated based on TRC data, available at www.trc.gov.lk). Therefore, providing facilities to improve wireless technology would be one strategy for sustainable development in mobile phone usage and CDMA usage.

Box 4.1

Wireless Technology Experiences in the Region

Most developing countries that do not have sufficient fixed wire line capacity have explored and implemented WLL technology to provide broadband facilities. India and Pakistan are currently providing broadband services using Wifi technology. Indonesia, Thailand and the Philippines are some of the other countries which perform well in broadband services using wireless technology. The table below depicts that the backbone density in India and Indonesia are at a very low level. However, they have achieved approximately 80 per cent of mobile penetration by using wireless technology.

	PT Telecom Indonesia	BSNL India
Total fiber optic network	9555	462527
Total area (land & water) sq Kms	1919440	3287590
Backbone Density Index (BDI)	0.005	0.14

Source: [www.sonusnet.com/contents/local loop white paper](http://www.sonusnet.com/contents/local%20loop%20white%20paper).

Expand CDMA facilities. It is only one and a half years since Sri Lanka implemented CDMA, but as at the end of March 2007 nearly 64 per cent were CDMA users out of total telecom users; Figure 3.1 shows the rapid increase in CDMA phones among the 21 Districts as at March 2007. Therefore, the process of issuing

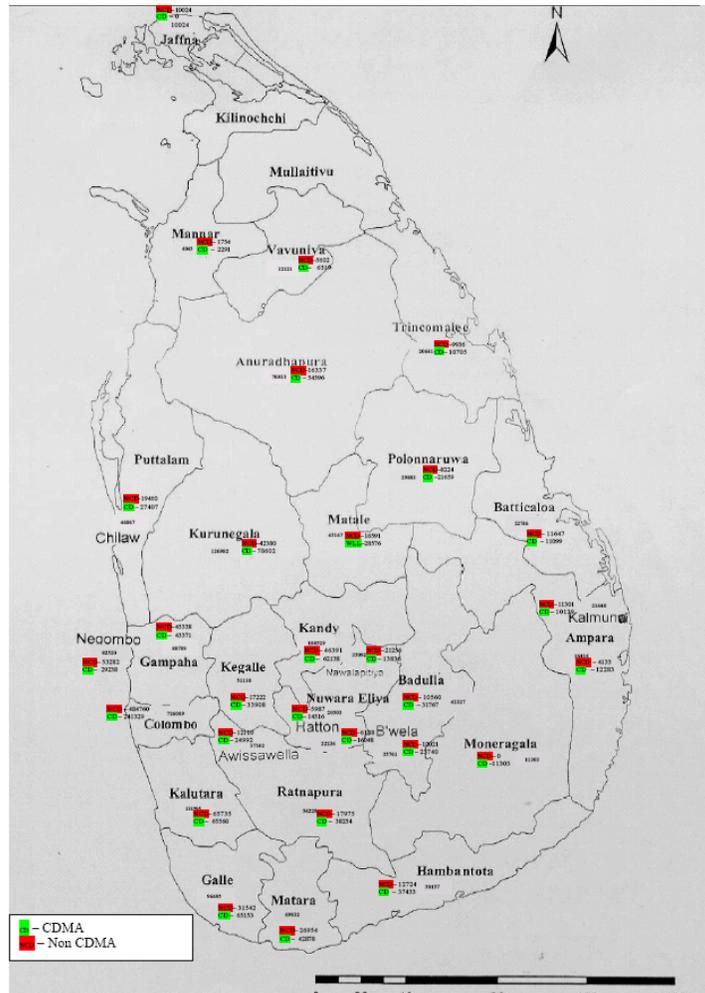
⁸ Frieden.R. (2005), "Unbundling the local loop: A Cost Benefit Analysis for Developing Nations", December 2005, Emerald Group Publishing Limited, available at: www.emeraldinsight.com/.../viewContentItem.do?

⁹ Telecom Regulatory Commission (www.trc.gov.lk).

¹⁰ Sri Lanka's Telecom Sector soars on Mobile Growth, Feb. 21, 2007, telecomasia.net, available at: <http://www.telecomasia.net/article.php?>

CDMA licences should be rationalized to provide a better service to end-users. And at the same time issuing of licences should be done in a transparent manner.

Figure 4.1
Provisional Distribution of Fixed Phones in Sri Lanka as at March 2007



Source: Telecom Regulatory Commission (www.trc.gov.lk).

Reduce internet access charges. Sri Lanka is seen as a country which has high internet access charges when compared with other developed and developing countries.¹¹ For example, in 2005, internet access tariffs as a percentage of per capita income was 0.77 in Indonesia and 0.869 in India.¹² In Sri Lanka, it was approximately 0.91 in the year 2005. (calculations based on TRC data, www.trc.gov.lk). The high internet

¹¹ ICT profile: Sri Lanka, Asia Pacific Development Information Programme, available at www.apdip.net/projects/dig-rev/info/lk.

¹² Wilson Joseph (2006), "Digital Opportunities in Pakistan", available at : http://www.dof.or.kr/pdf/FPW-session6_Joseph_Wilson.pdf and Goswami, D. "Telecom Reforms In Indonesia: Current Achievements and Challenges" available at www.lirneasia.net/wp-content/uploads/2006/12/GoswamiMASTELSept2106.pdf.

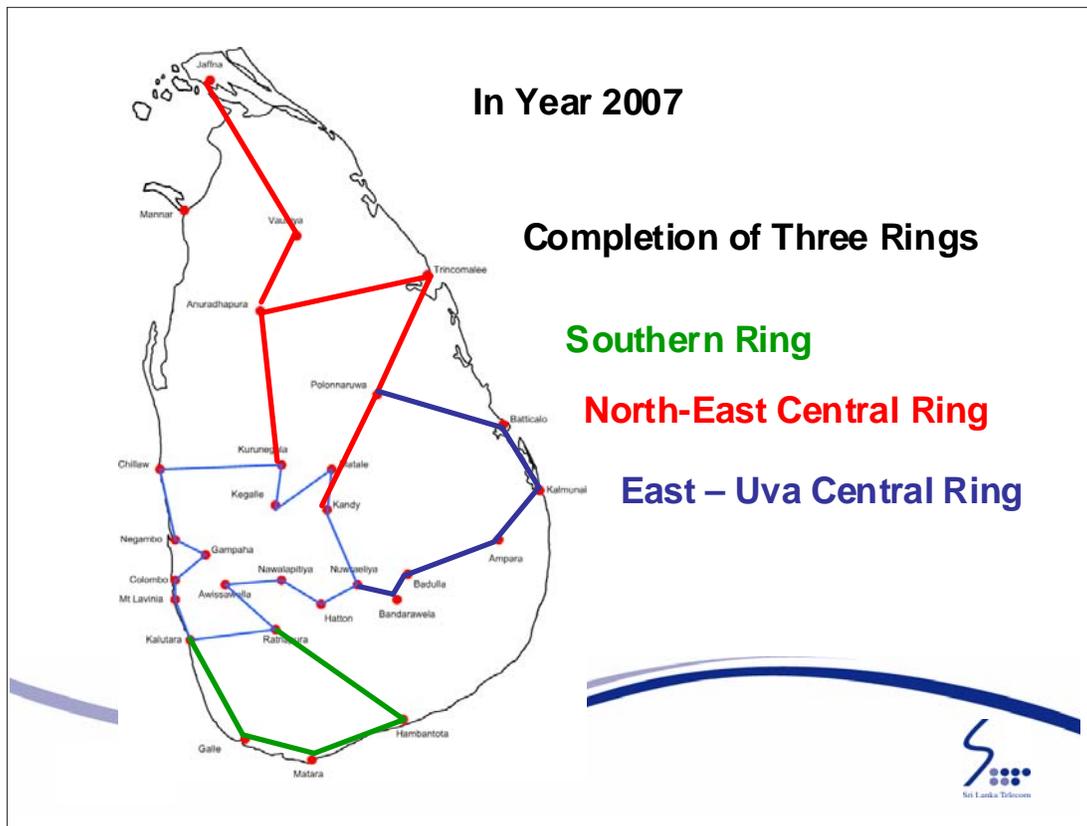
access prices have resulted in slow growth of internet access in Sri Lanka. As indicated in Table 2 which offers a comparison between India, Pakistan, and Sri Lanka, it is seen that Sri Lanka is lagging behind in terms of internet penetration (internet users as a percentage of population). One of the most important factors which encouraged Pakistan to increase the number of internet users was the reduction of internet access tariffs.¹³

Table 4.2
Internet Penetration in Selected Countries

	2000	2005	Up to Sep. 2007
India	0.46	3.6	5.3
Pakistan	0.1	4.6	7.2
Sri Lanka	0.5	1.4	2.2

Source: www.internetworldstats.com, naisproject.org.

Figure 4.2
Fiber Optic Network under the Main Incumbent and Planning for the Year 2007



Note: The four Metro Rings and the Central Ring are in full service at the moment, the other three are scheduled for completion during 2007. On full completion, SLT will command close on 1500 km of optical fiber interconnecting every province in the country (SLT Annual Report, 2006).

Source: SLT, www.slt.lk.

¹³ ICT profile – Sri Lanka, Asia Pacific Development Information Programme, available at www.apdip.net/projects/dig-rev/info/lk.

Clear the backbone bottleneck by unbundling. In order to increase fixed teledensity, it is important to provide a fiber optic network to the entire country. At present, this network only covers the areas of Chilaw to Kalutara and to Matale which is only one-fourth of the country. Figure 4.2 shows the fiber optic network under the main incumbent (Sri Lankan Telecom) in the year 2007. One of the options to expand this fiber optic network would be to unbundle the backbone. This could be done by either full unbundling or leasing this out to competitors – giving other operators an opportunity to access the local backbone and build new rings which will cover the entire country.

It is important to note that the Sri Lanka Railways has dark unlit fiber optics along its railway lines. The Telecom Regulatory Commission needs to liaise with the Railways Department to exploit this opportunity for network sharing. International experiences proved that using railway fiber optic would be one of the best options for a country to succeed in the telecom industry. Therefore it is important for Sri Lanka too, to use the existing railway dark unlit fiber without missing the opportunity. The Grameen telecommunication network system in Bangladesh provides a good example of using railway fiber optics–

Figure 4.3
Dialog Broadband Network Transmission Coverage Map



Source: Dialog Telecom, Annual Report, 2006.

network sharing – to provide telecommunication to marginal communities.¹⁴ Dialog Telecom has started providing Dialog broadband network (MTT) by using their own fiber optic network. At present, this facility is available only in the Colombo area and Dialog is planning on extending this island wide by 2008.¹⁵

The Figure 4.3 provides the Dialog broadband coverage map for the year 2006. Telecom network operators would require incentives such as tax reductions and low interest loans to expand their investment programmes and enhance backbone coverage.

Regulatory priorities should be implemented. These include the need for a transparent licensing process; transparent spectrum allocation with priority afforded to spectrum auctions wherever possible; and implementing in full the interconnection rules devised in 2003 with immediate effect.

4.2.2 Power and energy

The major energy sources in Sri Lanka are bio-mass, electricity and petroleum;¹⁶ where biomass accounts for 47 per cent, hydropower for 8 per cent and petroleum for 45 per cent. There are fundamental questions that need to be addressed in relation to the primary energy mix in Sri Lanka including whether the current composition of energy sources provide the right energy mix and why coal and natural gas are not a part of this mix.

Diversification of primary energy sources. One policy option to unbundle the electricity sector is through liberalization, allowing new players to enter the electricity generation segment in Sri Lanka. However, real competition in electricity generation is possible only if different fuel options are made available, given that fuel represents the largest cost in power generation. New fuel options such as coal and natural gas are feasible options. An analysis done in this regard is highlighted in the Appendix.

Regulatory reforms are required in the petroleum sector. Private sector participation has already been accommodated in the petroleum sector, however an effective regulatory mechanism that would benefit consumers as well as investors has to be streamlined. Public Utility Commission of Sri Lanka (PUCSL) has been empowered to regulate the petroleum sector however, sector reform legislation need to be enacted to really implement the powers vested with PUCSL. This statement is very superficial and does not say anything of practical significance.

Reforms towards competition in electricity are needed. Power sector reforms are needed to restructure the CEB to ensure increased efficiency, transparency, autonomy, accountability, competition and financial viability of the sector. The present vertically integrated functions of generation, transmission and distribution of the CEB need to be vertically and horizontally unbundled. There is limited provision for future

¹⁴ Knight-John, M., Zainudeen and Khan Saeed Abu (2005), "Insights from a Study of the Grameen Approach to Extending Telecommunications Access to Marginal Customers", available at: www.lirneasia.net/UserFiles/File/media_briefing_19dec05/4_MKJ_Grameen.pdf.

¹⁵ Interviews with representatives of Dialog Telekom.

¹⁶ Central Bank of Sri Lanka, *Annual Report 2006*, p.44.

competition in generation, with a single purchaser in transmission, and regional monopoly distribution companies. Under the proposed reforms in 2002 all companies in the power sector need to be subjected to economic, technical and safety regulation by the Public Utilities Commission of Sri Lanka (PUCSL), which has been constituted by the Public Utilities Commission of Sri Lanka Act, No. 35 of 2002. The electricity Reform Act, No 28 of 2002, a comprehensive legislation should bring into effect measures which would address the structural and regulatory reforms together.

4.2.3 Transportation

The transport network comprises of highways, bus routes, railways, shipping network and air transportation.

4.2.3.1 Railways

Railways are ideally suited for long distance travel and movement of bulk commodities. It provides transport better than other modes of land transport in terms of energy efficiency, land use, environment impact and safety. Considering the existing resources in the Sri Lanka railway system, and its potential to provide mobility and accessibility, the Ten Year Plan has recognized that the railway is an economical mode of transport for passengers and goods. The expectations of the Plan are to increase the share of passenger transport from 5 per cent to 10 per cent and share of freight transport from 2 per cent to 10 per cent by 2010. Some of the strategies to improve this sector would be as follows:

Introduce rational decision making system into the railways system. Many countries such as the UK and France for example, reformed their railroads in the last two decades in an attempt to reduce deficits, increase efficiency, and improve the quality of service. However, international experience indicates that privatization and deregulation have not always been successful.¹⁷ The existing government departmental structure in Sri Lanka Railway does not provide sufficient flexibility to run a commercially viable railway system in Sri Lanka.

Under the present departmental structure, expenditures are allocated from the Parliament through the annual budget irrespective of the revenue that it generates. As such, the establishment of independent business units to improve financial sustainability is recommended. This could be done by amalgamating activities horizontally or vertically. For example, a railway station could be considered as a business unit and its activities could be amalgamated vertically. Similarly, operation of a section of the railway line could be considered as a business unit horizontally by amalgamating all activities of that line into the business unit. The cost and revenue needs to be recognized at the respective business unit and business units should be requested to self finance their centres. A detailed study needs to be conducted to identify the most appropriate structure. This strategy will create pressure to implement various business strategies to enhance revenue. Box 4.2 explains how Indian Railway was turned around by applying such innovative business strategies.

¹⁷ José A. Gómez-Ibáñez (2004), "Railroad Reform: an Overview of the Options" (Draft). Harvard University, Paper to be presented at the Conference on Railway Reform, Rafael del Pino Foundation, Madrid, September 18-19, 2004, available at: http://www.ksg.harvard.edu/taubmancenter/pdfs/working_papers/gomezibanez_04_railway.pdf

In the departmental structure there is no motivation for the railway management to find new avenues to enhance the revenue. Hence, internal reforms are necessary at present to diversify the revenue sources in the railway department.

Improve the existing services provided to passengers. The most important factor here would be to avoid cancellations and long delays in the scheduled train service. Furthermore, the time tables could be revised considering passenger demand and simultaneous bus transport facilities could be provided to satisfy commuter needs. The installation of an online railway seats reservation system especially for long distance travel - common in countries which provide an efficient railway passenger transport system - is also recommended. It is important to implement a multi-modal transport plan in order to link the different modes of transport, buses and railway to fulfill the transport demand.

4.2.3.2 Roads

Roads in Sri Lanka are in need of significant improvements in terms of both quality and service.¹⁸ More than 50 per cent of the national roads have poor surface conditions.¹⁹ The successful implementation of a road management system depends on the interaction of three fundamental components namely: processes, people and technology.²⁰ Strategies to create successful road systems would be:

Box 4.2 Turnaround of Indian Railways

Indian Railways, which was declared to be heading towards bankruptcy as per the Expert Group on Indian Railways in 2001, is today the second largest profit making public sector undertaking. The Indian economy is growing faster than before; 8.4 per cent being achieved in 2003-04, 2004-05 and 2005-06 respectively. This growth environment has offered an opportunity for Indian Railway and has significantly affected its turnaround.

In the freight business, there was focus on higher volumes, on the basis that marginal revenues were significantly higher than marginal costs. This was done with the objective of lowering the unit costs, resulting in a record surplus. The strategy of higher volumes was also carried through in the passenger business. The concept of revenue management was implemented in which differential prices were charged for differential services.

In the other business areas of parcel, catering and advertising, the strategy of outsourcing through public private partnership and wholesaling rather than retailing was adopted. Underlying all this was the strategy of increasing asset utilization.

Source: Raghuram, G. (2007), "Turnaround of Indian Railways: A Critical Appraisal of Strategies and Processes", W.P. No.2007-02-03, February 2007, Indian Institute of Management, Ahmedabad, available at: <http://www.iimahd.ernet.in/publications/data/2007-02-03graghuram.pdf>.

¹⁸ Central Bank of Sri Lanka, *Annual Report 2005*, p.47.

¹⁹ Sri Lanka Transport Sector, *Transport in Asia*, The Transport in Asia, available at :web.worldbank.org/wbsite/external/countries/southasiaext/extsarregtoptransport.

²⁰ Kevin McPherson and Christopher R. Bennett, 2005, 'Success factors for Road Management System', East Asia Pacific Transport Unit, The World Bank, Washington, D.C.

Maintenance and rehabilitation of existing road network. Considering cost effectiveness, maintenance and rehabilitation of the existing road network would be the best and the most feasible approach rather than constructing new roadways in areas where roads networks already exist.

Programmes for traffic management and increasing road safety. The rapid importation of new vehicles annually to the country has led to severe traffic congestion on roads. As a result, road related safety measures are an urgent necessity. As a corrective measure an effective traffic management programme could be introduced such as the introduction of a uni-flow traffic plan, (although some studies have suggested that while private car owners have benefited with the uni-flow system, public transport has substantially failed with this system),²¹ construction of bus lanes,²² (according to studies undertaken, constructing bus lanes in the existing uni-flow system could perhaps increase efficiency),²³ flyovers and the construction of new signal lights, etc.

Incentives for private sector partnership in road development. This would reduce the Government's financial burden of financing roads, and bring private sector managerial experience into financing, construction and operation. This should include providing a transparent process of selecting the investors and a conducive regulatory environment which would encourage greater efficiency in the private sector construction and operation of road developments.

4.2.4 Water supply and sanitation

As at 2006, there were 291 water supply schemes available island wide. This is a 2.5 per cent increase compared to 2004, and a 1 per cent increase compared to 2005; nearly 92 per cent of the population had access to clean water in 2006. Commonly used strategies to improve the level of water supply and sanitation would be:

Introduce user driven management programmes for sustainable water consumption. Water resources in Sri Lanka (except pipe borne water) are not subjected to any pricing: this leads to over exploitation and inefficient utilization, thereby threatening long term sustainability. Therefore, this would be one of the most important strategies.

Community participation by way of contributing their labour. Active community participation is a key to building an empowered community.²⁴ Community groups could get together and could contribute their labour for creating new wells, rehabilitating agro-wells or to create new tanks etc. The State burden on such investments would be less because villagers contribute their labour on 'food for work' or for a

²¹ Kumarage, A. (2007), "A Review of the Uni-flow System: Traffic Problems in Colombo: Is there a Solution?", 20th, Organization of Professional Associations in Sri Lanka.

²² According to the studies undertaken by the experts, constructing bus lanes in the existing uni-flow system could perhaps increase efficiency. See Kumarage, A. (2007), "A Review of the Uni-flow System: Traffic Problems in Colombo : Is there a Solution?", 20th April 2007, Organization of Professional Associations in Sri Lanka.

²³ Ibid.

²⁴ Reid, N. (2006), "How People Power bring Sustainable Benefits to Communities", USDA, Road Development, Office of Community Development, June, <http://www.ezec.gov./pubs/commparticrept.pdf>.

very low cost. Community groups could also be directed to contribute small amounts of money for the maintenance of their own village wells, tanks etc., and their efforts could be rewarded by giving them prizes.

Encourage public private partnerships (PPP) in the investment programmes. The overall goal of PPP projects is to find solutions to problems in which the advantages of the private sector (such as financial assets, efficient management, propensity to innovative and entrepreneurship) are combined with the advantages of the public sector (such as social and environmental concerns). When implemented correctly, PPP projects can be very powerful tools in speeding up the construction of new infrastructure facilities and operating them efficiently.²⁵ Building Operating Owning (BOO) and Building Operating and Transferring (BOT) are the commonly used methods. An important point to note is that when attracting investments, governments are under an obligation to create a suitable regulatory network. Box 4.3 provides information on how India gained momentum in water management by using PPP.

Box 4.3

India's Experience on Public Private Partnership in the Water Sector

At present public-private partnership is providing water and sewerage services to thousands of Tirupur area residents. The project was initiated in the mid-1990s when the Tirupur Exporters Association recognized the need to improve the area's infrastructure to remain competitive in the knitwear industry but did not have the resources to finance the project.

The solution was to establish the New Tirupur Area Development Corporation Limited, a group of private and public entities, which became the first public-private partnership in the water and sanitation sector in South Asia operating on a Build-Own-Operate-Transfer (BOOT) basis. Today, Tirupur residents receive water every day for 4-6 hours, as opposed to receiving water only on alternate days at the best of times prior to the project. Household water connections have increased by 8,000 and local industry now has a reliable source of water. One hundred per cent of new domestic users have paid for the water connections to access high quality water - the fee covers the capital costs of each new connection.

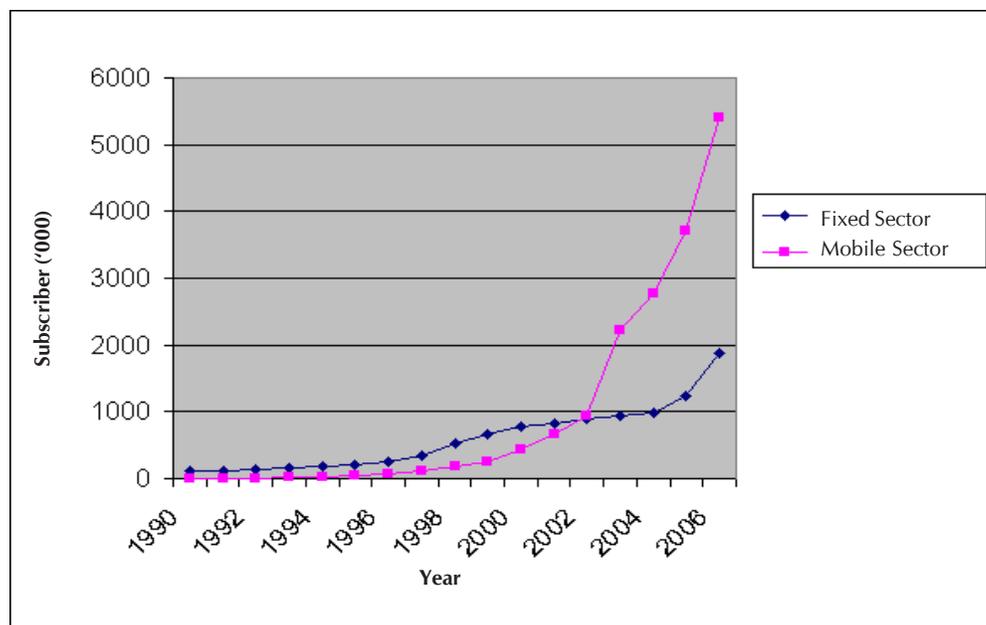
The Tirupur project is an excellent example of how private sector involvement in public service delivery can dramatically improve access to water and sanitation. In India, where about 13 per cent of the world's population that is un-served for water and 43 per cent of the world's population that is un-served for sanitation resides, such improvements show the way forward.

Source: Sainath, P. (2006), "Privatization: Come Hell or High Water", *The Hindu News Paper* (3 March 2006), available at : <http://www.hindu.com/2006/03/22/stories>.

²⁵ Alexandersson, G. et al (2006), "Using Public-Private Partnerships to create High-Speed Railway Networks in Europe - Prospects and Pitfalls", 4th Conference on Railroad Industry Structure, Competition and Investment, available at www.eco.uc3m.es/english/agenda/mad2006.html.

Appendix

Figure 4.4
Subscribers in Fixed and Mobile Sectors



Source: Telecom Regulatory Commission (www.trc.gov.lk).

Primary Energy Sources for Sri Lanka

- Since different forms of energy sources are measured in different parameters, for comparison purposes it is required to express the energy content of all energy sources in one parameter. British Thermal Unit (Btu) which is a standard unit for measuring the quantity of heat energy equal to the quantity of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit, is used in this analysis to measure the energy content of different energy sources. MMBtu (notation for thousand, thousand Btus) is the accepted expression which represents millions of Btu.
- Energy price per MMBtu basis.

Crude Oil	\$ 6.8 MMBtu at \$ 40 barrel
Crude Oil	\$ 8.6 MMBtu at \$ 50 barrel

Coal

Coal is much less expensive on per MMBtu basis. However, coal prices will vary on sulphur content of the coal, and in general on MMBtu basis coal is available starting at \$ 1.3 MMBtu.²⁶

Natural Gas

- LNG prices will also vary in terms of contract period, quantity and other conditions of the Contract. The Qatari Natural gas which is an accessible source of gas to Sri Lanka is said to be sold at \$ 2.53 MMBtu FOB (fee on board i.e., excluding shipping cost and re-gasification). In January 2005, India signed a long term deal for 7.5 million metric tonnes per annum LNG from Iran based on an index price ceiling of \$ 3.21 MMBtu FOB. For the initial few years, the terms include a favourable price of \$ 2.97 MMBtu.²⁷

²⁶ Tongia Rahul (2005), "Revisiting Natural Gas Imports for India" *Economic and Weekly*, May, P.2034.

²⁷ Ibid.

- Since coal is the cheapest fuel source under the “Least Cost” scenario, coal comes as first choice for electricity generation. However, taking all the cost components into account including environment cost, whether coal is the cheapest option has to be further evaluated.
- However, coal has to be converted into electricity and only then will it add into the energy mix in the country. But Natural gas and petroleum products can be used directly in diverse forms of energy, i.e., vehicle running, industry purposes and for domestic use etc.
- In comparing Oil Vs Natural Gas it is required to evaluate the transportation cost since the above prices are on an FOB basis. When the transportation cost is taken into account it comes to \$ 5.5 MMBtu (\$ 3.21 FOB + 2.3 Transport Cost) in Natural Gas. Even then the price of Natural Gas is lower than \$ 1 MMBtu even under the low pricing scenario of crude oil at \$ 40 per barrel.
- Japan as the largest LNG user, gets its LNG at about US\$ 4.2 per MMBtu. Hence the \$ 5.5 per MMBtu for Sri Lanka could be a workable scenario. However, the price comparisons are somewhat complicated since the prices are highly sensitive to the time, quantity, quality of the product etc.
- The basic conclusion that can be derived from this analysis is that Natural Gas prices are lower than the Oil prices as well as higher than the coal prices, on MMBtu basis. Hence, Sri Lankan energy strategy has to be worked out in line with this basic conclusion. *Since Coal has recorded the lowest “financial” cost it is worth to get maximum contribution into the energy flow through electricity. The second best option of Natural Gas, in terms of cost as well as energy quality need to be totally explored before it moves on to the third option of petroleum products.*

5. Livelihood Development and Social Protection

5.1 Overall Policy Framework of the Ten Year Plan: An Overview

The livelihood development and social protection framework of the TYP consists of a three-pronged strategy: livelihood development, social protection, and disaster mitigation and risk management. The overall vision for the TYP is to empower the people to develop and sustain their livelihoods and improve their standards of living, while ensuring that vulnerable people and geographical areas are adequately protected from various risks and are not left behind in the development process. This in turn is expected to help eliminate poverty, hunger and deprivation.

Policies and strategies aimed at livelihood development in the TYP are characterized by measures to create 1) a conducive environment for the poor to develop livelihood opportunities through the provision of concessionary funding, technical know-how, improved infrastructure and marketing facilities; 2) special poverty reduction projects and programmes in the rural areas; 3) an appropriate platform at village and divisional levels to articulate pro-poor livelihood improvement projects through the proposed *Grama Sabha* and *Jana Sabha* institutions; and 4) an improved microfinance sector as an effective means of livelihood development.

Gama Naguma is the major rural development programme that is meant to ensure rural infrastructure such as access to safe drinking water, roads and electricity, health care, primary education and employment through setting up of factories in villages, etc. The Samurdhi programme is implemented as the main poverty alleviation programme with a cash grant programme and a livelihood development programme. Furthermore, several regional based development programmes have been identified as a dynamic way to promote development.²⁸ In addition, specific programmes on health, education, employment and vocational training, housing, water supply and sanitation, roads, electricity, and communications and gender equality are to be implemented aimed at worker community development of the plantation sector.

The objective of the social protection policy of the TYP is to ensure social and economic mobility of the socially and economically disadvantaged people in the country. Differently-abled people, children, senior citizens and destitute women are identified as target groups for special welfare assistance under the framework, while specific programmes are to be implemented to protect the rights of these disadvantaged groups and ensure their participation in socio-economic activities.

Disaster mitigation and risk management have also been recognized as priority areas. The overall strategy is divided into 1) pre-disaster risk reduction through mitigation and preparedness, and 2) post-disaster recovery through relief, rehabilitation and reconstruction. The implementation is to be done through interactive identification of priority policies, programmes and projects across different areas of action.

²⁸ These include programmes such as Senkadagala Revival, Rajarata Reawakening, North-West Revival, Uva-Wellassa Awakening, etc.

It is evident that the TYP touches on a number of important policies/strategies and various programmes/projects through which the stated vision could be realized. Nevertheless, there exist some gaps and limitations in the suggested policy framework for livelihood development and social protection.

5.2 Assessment of the Proposed Strategies and Policy Options

5.2.1 Livelihood development

Despite moderate economic growth over the last two decades, poverty reduction in Sri Lanka has been slow. Currently, about 23 per cent (or 4.4 million) of the population live in poverty,²⁹ of whom around 80 per cent live in rural areas. Considerable disparities exist across regions with the Uva and Sabaragamuwa Provinces experiencing the highest levels of poverty. In this context, the Plan has recognised the need for livelihood development to provide sustainable income generation avenues for the poor. It highlights the fact that provision of cash grants is not the ideal method to move people out of poverty and hence the prime focus of the document is on creating opportunities for the poor to participate in the economic growth process in a productive manner.

5.2.1.1 Creation of livelihood opportunities to provide sustained income avenues for the poor

Since the majority of Sri Lanka's poor live in rural areas and since, over 60 per cent of these rural households are agriculture based with poverty rates in the agriculture sector being significantly higher than those in the non-agriculture sector, livelihood programmes should be designed with these sectors in mind.

Improving agricultural productivity and competitiveness is necessary in order to enable these poor agricultural households to increase their incomes and climb out of poverty. Some measures that could be taken in this aspect are, crop diversion from low value to high value crops through improved technology; agricultural research and extension; improved land policies; and increased efficiency of water use.³⁰

Creation of more non-farm employment opportunities would allow rural farmers engaged in less productive and low income agricultural activities to move into other more productive occupational activities. This would allow them to earn higher returns/income and more importantly move into employment that is not seasonal or as risky as that of the agricultural sector. Many rural poor are reluctant to move into non-farm employment activities due to the lack of a conducive environment, therefore the creation of such an environment would encourage non-farm employment both through the promotion of entrepreneurial activities and indirectly through the attraction of investors into these areas.

Integration of the broadened export-villages concept would lead to area-based specialization. Through economies of scale, villages can benefit from cheaper inputs and more effective market linkages. It is important to note that the lines of specialization should be along the lines of already existing resources

²⁹ This is based on the Official Poverty Line which defines the poor as persons living in households whose real per capita monthly total consumption expenditure is below Rs. 1,423 in the year 2002.

³⁰ These factors are further elaborated on in the section on agriculture of this document.

and specializations of the villages (specialization of a type of crop production, handicrafts, wood products, etc.). The government should ensure that conditions at the ground level are favourable (in terms of infrastructure, marketing, input availability, etc.) for this concept to be implemented successfully.

5.2.1.2 Creation of a conducive environment for the poor to develop livelihood opportunities

Infrastructure development is vital in promoting rural investment. The key areas to be considered are improved road access and transportation; access to electricity and water; and improved communications. Priorities should be identified by provinces and DS divisions so that a clear country plan can be mapped out. Once this is done funds can be allocated to DS divisions on a priority basis and this in turn can be passed on to villages through a selection body at the DS level.

Facilitation of public-private partnerships are important to expand opportunities by bringing about investment and competition. Encouraging private sector participation in rural areas for the establishment of factories through tax reduction/exemptions and through the provision of easy loans for construction are some measures that could be implemented.

Creation of a stable institutional environment is important to encourage investment and facilitate the growth of businesses. Responsibilities of institutions should be clearly set out and transparency maintained at all times. It is also important to minimise political interferences and create a level playing field for private investors. A highly politicised and intruding environment would discourage investors due to high costs of doing business, prevention of market entry etc.

Market linkages are essential for the survival of small enterprises. The government could play a facilitator role through greater dissemination of market information (i.e., on prices, quality standards etc.) to both entrepreneurs and local institutions, and creating linkages between rural entrepreneurs and various business organisations (such as buy back systems, forwards contracts etc.). This would ensure that small enterprises are not isolated from the overall supply chain and that they receive the best prices for their goods and services. In order to achieve this, local government institutions also need to establish links with other local institutions (such as NGOs, MFIs, training institutes etc.).

Access to affordable financial services is necessary for entrepreneurs in starting up and expanding their businesses. Its availability is a key factor in creating a good business climate. (This is discussed in further detail later in this section).

Promotion of technological innovations and transmission to rural areas is a decisive factor in creating a competitive environment. As a start, the government should take initiatives to promote innovations at least in selected lines of production for example, value addition in rice milling. Hosting competitions for new technological innovations and other incentives such as loans/ grants for innovative practices can be used to create new ideas. Further, such innovations will enhance product quality creating a value addition. A mechanism can be developed at Divisional Secretariat (DS) level to disseminate such knowledge. The 'Vidatha' programme of the government is such an initiative. Maintaining a registry of entrepreneurs at DS level would facilitate this.

5.2.1.3 Use of microfinance as an effective instrument for livelihood development and poverty reduction

Limited access to finance is one of the major obstacles faced by the poor in improving/expanding their livelihood opportunities. Microfinance, through the provision of a wide range of financial services (e.g., credit, savings) can help the poor to expand their income generation avenues and thereby help them to move out of poverty. In addition, by providing access to both financial and social assets (e.g., groups, social networks), microfinance helps to empower the poor. In addition to strategies listed under the Ten Year Plan, there are a number of issues/ strategies that are important to improve the effectiveness of microfinance in developing livelihoods and reducing poverty as well.

Provision of Business Development Services (BDSs) along with financial services. Financial services alone are not sufficient to create sustainable income generation opportunities among the poor. Poor often lack the required skills/training, marketing facilities, technical know-how, etc. Thus, it is important that Microfinance Institutions (MFIs) either directly provide or facilitate in providing these BDSs to their clients. Government can play an important role by providing the MFIs with the information on various services provided by government institutes like vocational training centres, the Export Development Board (EDB), Agriculture Department, etc. and linking them with such service providers in the area. MFIs and their clients can also be linked with the government programmes like 'Nena Sala', (the government sponsored rural telecentres). Furthermore, it is imperative that MFIs provide information on various private sector BDSs providers like agro-business companies in the area and play an intermediary role between their clients and these companies.

Follow microfinance good practices and good governance. It is important to avoid writing-off loans and the mixing of loans and grants as this can lead to adverse implications on the credit culture and the long-term sustainability of the MFIs/programs. Maintaining financial accounts audited at regular intervals and minimising politicisation of state-owned MFIs/programs is also important.

Enforce regulation and supervision of non-bank MFIs. Various types of Non-bank MFIs (e.g., Co-operatives, NGOs) are regulated by different ministries/departments/Acts. Weaknesses in the current regulatory system have resulted in a large number of unsustainable MFIs in the sector. Legal restrictions on NGOs in mobilizing savings from their members have also undermined microfinance best practice principles. Thus, there is an urgent need to enforce the Microfinance Act and establish the proposed regulatory unit for non-bank MFIs at the Central Bank of Sri Lanka.

5.2.1.4 Designing and implementing special livelihood development programmes for lagging regions and vulnerable groups

Poverty trends are more or less related to the regional patterns of growth and at present the Uva and Sabaragamuwa provinces show the highest poverty rates and are the lowest contributors to GDP. Targeting of livelihood development activities to lagging regions and groups would benefit the overall economy.

Identification of the areas lagging behind in the growth process is a preliminary step. For this, there should be a sequential mapping and planning of resource availability within the region; development opportunities (based on resource availability and type, and livelihood activities of the region); and areas

which need government intervention. The area based livelihood development programme can be identified as such an initiative, though it needs to be further strengthened.

Inclusion of the 119 poorest Divisional Secretariats identified by the Department of Census and Statistics is an important step in the above mentioned identification process. Some of the DSs might fall directly under the already identified regions. However, directly targeting these DSs is essential. These DSs should be provided with special government assistance for development.

Inclusion of the plantation community under targeted livelihood development is important since the characteristics and requirements of this community differ from other vulnerable groups. The development activities of the government should go hand in hand with activities of the estate ownership. Specifically, livelihood development programs should target the youth of the community with special attention being given to the provision of vocational training to school leavers.

Livelihood development of the Internally Displaced Persons (IDPs), people with disabilities, and the destitute is another area that needs special attention. There are two types of IDPs - those displaced due to natural disasters such as the tsunami or floods and conflict affected IDPs. Each of these has to be considered separately, since the form of deprivation is different and hence, the livelihood requirements are different. The IDPs of natural disasters face a short time period of deprivation, since after the initial provision of relief and rehabilitation they have the ability to recommence livelihood activities. But the IDPs of war are deprived over a long period of time, and have hardly any means of commencing livelihood activities. In addition to relief and assistance these groups may need training and advice on how to commence livelihood activities.

Improve the efficiency of the livelihood development component of the Samurdhi programme. The Samurdhi programme being a country-wide programme has the ability to reach the country's poor more than any other programme. The livelihood development component and more specifically the microfinance component of the program should be strengthened. The programme should take measures to ensure sustainability of enterprises through improving marketing facilities and linkages, strengthening training components and providing other technical and financial advice to entrepreneurs. The Samurdhi livelihood program should be carried out in conjunction with other livelihood programs being carried out in these areas (such as Gama Neguma, Area based livelihood programs and programs carried out by other institutions).

A participatory based identification of the requirements of these areas/ groups of people is essential. Interaction between the beneficiaries and the implementers is very important in order for programmes to be needs specific and effective. Involving the poor in their rehabilitation process will lead to their empowerment. The process can be implemented through the Grama Sabha structure that the development plan proposes. In addition, allowing and encouraging people to participate by contributing labour in development work carried out in the village through programmes such as Gama Neguma, Maga Neguma will also provide short-term income avenues.

5.2.1.5 Improving coordination of projects/ programmes and improving governance

A single body at the macro-level should be established to coordinate all livelihood development efforts of the government institutions and if possible of other institutions such as local NGOs, INGOs or other donor agencies. This would reduce duplication and synergise the work of programmes such as the Gama Neguma and Samurdhi Livelihood Development programmes.

Improving village level should be established and divisional level coordination of the projects/ programmes will have a synergistic effect, by reducing duplication, ensuring maximum utilization of resources for the most appropriate use and for the best interest of the communities. The Development Plan proposes to establish Grama Sabha and Jana Sabha institutions to create an appropriate platform at the village and divisional level for this purpose. Under the proposed mechanism, village needs would be prioritised in a participatory manner and brought for consolidation at the divisional level which would lead to ease in budget allocations and greater transparency. This mechanism should be strengthened to implement all the development programmes at village/DS level through these two bodies (E.g., electricity, water, roads, schools and other human resources, health, market centres, livelihood development programmes, etc.).

The operational and implementation structures need to be thorough and transparent and tasks specified clearly in both the institutions suggested (Grama Sabha and Jana Sabha) to ensure that there is no conflict or duplication with the already existing channels of Pradeshiya Sabhas and Divisional Secretaries. For appointment of the office bearers, a clear set of regulations and transparency in appointments is essential to minimise political interferences. Furthermore, time spans should be brought in for renewal of appointments. Having effective monitoring mechanisms would also contribute to increasing operational transparency and this can be done through community participation by validation.

The Grama Sabha has to be brought about as a community initiative; the role of the government should be only for advocacy. The government as a facilitator should encourage the role of the civil society organisations which could play a pivotal role at the Grama Sabha level.

The concept of reciprocity in decision making; both top-down as well as bottom-up has to be thrust further. The appointees/ institutions of the Grama Sabha should be selected through participation of the villagers making it an effective instrument to carry the voice of the people. The villagers have to be clear on the role they can play and benefits they gain by appointing suitable representatives as for such demand driven/needs based development, the correct leadership matters immensely.

5.2.1.6 Sustainability of programmes

Sustainability is a major factor to be considered in designing/ implementing of any programme/ enterprise and would depend on a number of key factors.

Programmes would require adequate budget allocations or funds for their sustainability. Hence, at the designing stage itself, the programme should have feasible targets, according to the availability of the resources.

The programmes could develop target and exit mechanisms. This would help the institutions to tackle the problems of only the most deserved, given a constrained budget. This would also reduce the dependency syndrome, since such programmes monitor the exit and entry.

Availability and adequacy of a monitoring and evaluation mechanism for the key strategies/ programmes will increase the sustainability. This would also increase the coordination of the programmes. Hence, the programme has the time for re-adjustment or to be curtailed. The new programmes of Gama Neguma and Area Based Livelihood programmes should have monitoring units/mechanisms. However, it is important that monitoring and evaluation does not absorb a huge proportion of the budget. The establishment of time spans for the programmes will ease monitoring and evaluation and it would ease target measurement too.

5.2.2 Social protection

Social protection programmes would help to reduce poverty and vulnerability through reducing exposure to risks and enhancing the capacity of vulnerable groups to cope with risks.

Identification of the vulnerable and destitute is a first step in social protection policy. The framework provided has identified differently-abled people, children in vulnerable situations, senior citizens, chronically and transitory poor, destitute women, the unemployed and communities exposed to disasters as vulnerable groups. However, it has not taken into account the vulnerable groups in estate communities and conflict affected IDPs- this is a serious omission in the present context.

Accurate targeting mechanisms should be developed to assist the above mentioned vulnerable groups. Suitable indices (based on combination criteria such as sector, income, assets, housing and sanitation etc.) should be developed in order to correctly identify the needy. Relevant information could be collected with the involvement of the Grama Sabha as this will allow a participatory approach free of political interference. Improving the targeting mechanisms is imperative in the Samurdhi programme, which is often criticized for its poor targeting and high political affiliation. The recent reforms of the programme attempts to include a participatory approach for beneficiary selection has to be further promoted. Continuous assessments of the programmes are necessary so as not to exclude those in need (such as transitory poor) and similarly so as not to include those who are not.

A package of interventions should be developed to cover all types of vulnerabilities. The social protection programmes should be all inclusive and pursued in tandem with livelihood development programmes. Grants on social welfare should be coupled with other social welfare assistances such as human resource development.

The welfare grants should be adequate to cover basic needs/ minimum nutritional requirements. The grants should be able to keep the people above the minimum nutritional intake level. Most of the welfare grants of the country are far from being adequate. Further, little or no revisions have been made to the

amounts/value of grants given under programmes like Samurdhi over the last decade. Revision of the amounts granted based on the cost of living index is important.

Promotion of micro insurance can play a major role in provision of social protection. There are very few micro insurance schemes in the country aimed at serving the poor/disadvantaged groups. Many of them are linked with various MFIs. The Samurdhi programme also has a micro insurance scheme. However, this scheme presently covers only life cycle related vulnerabilities and should be developed further to provide insurance for other livelihood and disaster related vulnerabilities (crop and livestock insurance, disaster related insurance, etc.).

The programmes should have adequate funds/budget allocations to have a long-lasting impact. The administrative costs should be brought to minimum levels. Improving targeting mechanisms can also ensure that funds are used more efficiently.

6. Towards a Flexible and Globally Employable Workforce

6.1 Overall Policy Framework of the Ten Year Plan: An Overview

The TYP envisages the promotion of “opportunities for women and men to obtain productive work in conditions of freedom, equity, security and human dignity”. It identifies four main areas through which to achieve the above vision, namely; employment generation, skills development and labour productivity, increasing the flexibility of labour laws and regulations, and improving employer-employee relations.

Employment opportunities are expected to be generated through sources of public, private and foreign sectors. To accomplish the targeted employment generation, policies are to be implemented to better match the demand and supply conditions of the labour market. The Yovun Diriya programme and community development assistance programmes will be implemented in order to increase employment opportunities for youth. Moreover, a systematic policy framework to upgrade rural infrastructure is to be formulated to attract private investment which could generate a substantial number of employment opportunities in rural areas. New financial assistance schemes are to be carried out in order to enhance informal sector employment and SMEs. As identified in the proposed TYP, the private sector as well as the self employed sector will be largely encouraged to create new employment opportunities.

In addition, female participation in the labour force is seen as vital for long term sustainability of the Sri Lankan labour force and thus, several measures have been proposed such as strengthening the regulatory and operational function of the Sri Lanka Foreign Employment Bureau (SLFEB) to provide secure employment opportunities for women, setting up of handicraft villages through financial and other grants, etc. The underlying policy directions also include measures to encourage skilled migration as well.

In order to address the issue of mismatch between labour supply and demand in Sri Lanka, the TYP comprises measures aimed at developing skills and labour productivity. These include programmes to enhance comprehensive skills in national language and in English, information technology, as well as in

technical and vocational skills. It is also expected to establish a labour market information system to link private and public sectors while employment assistance centres at Divisional Secretariat level will also be set up in order to link job seekers to relevant employers. The TYP has also identified several policy strategies to address the issue of youth unemployment in conflict affected areas; these include the establishment of an advanced technical college affiliated to the national system of TEVT with Tamil medium courses, development of human resources in education in these areas, and re-establishment of industrial sector in conflict affected areas to generate adequate potential for employment creation.

The recommendations for increasing the flexibility of labour laws and regulations comprise setting up of a social protection framework for the informal sector, legal reforms, social security scheme for the unemployed and the aged workforce and programme to combat child labour. The TYP also highlights the importance of better employee-employer relations to reduce industrial disputes.

Whilst the focus of analysis in the following sections retains two of the identified issues in the TYP, two alternative areas are introduced to reflect current needs. Thus, the four identified areas include: (i) employment generation, (ii) skills development, (iii) reforming labour laws and regulation, and (iv) ensuring proper social welfare to workers.

6.2 Assessment of the Proposed Strategies and Policy Options

6.2.1 Employment generation

The Ten Year Plan correctly identifies the need to create private sector jobs in the formal sector for youth and females. This arises from the consistently high levels of youth and female unemployment and the large share of informal sector workers, who work in poor conditions, and receive inadequate social protection, and whose coverage has concerned policy makers over time.

However, the identified areas of job creation in the Plan do not achieve the stated goal of promoting productive and decent work conditions. The Plan envisages job creation through increasing foreign employment, improving self-employment, and improving job sourcing and delivery through Jobs Net. Promoting self-employment contradicts with government policy of reducing employment in the informal sector.

6.2.1.1 Foreign employment promotion

Foreign employment promotion should be done with proper planning to ensure proper conditions of work and compensation for workers and the requirements of the domestic market. The available foreign employment market for low skilled workers does not necessarily go in line with the government's policy of promoting employment in conditions of freedom, security and human dignity, unless adequate measures are taken to safeguard the interests of low-skilled migrants (cross reference). Also, increasing the number of migrant low skilled workers will not necessarily help with the problem of unemployment, as most unemployed are educated.

Improving placement of skilled workers will reduce the unemployment levels, but should be done with careful planning. Some skill categories in high demand in the global market are in short supply in the country (e.g., nurses). Policies that promote labour exports should ensure that domestic labour requirements are also met. Part of the problems in inadequate supply of workers in some areas relates back to the inadequacies in the secondary and tertiary education levels. These inadequacies should be identified and skill training should be developed appropriately. (e.g., expansion of science education at the secondary school level is needed).

6.2.1.2 Expanding domestic demand for jobs

Jobs that meet the aspirations of the job seekers will need to be created to improve job matches and reduce unemployment. Analysis of JobsNet data reveals large mismatches between job seekers and available jobs in the database. Most job seekers are educated, inexperienced youth seeking white-collar jobs, while employers that register with JobsNet are looking for unskilled workers with low levels of education.

Private sector investments will need to be promoted through far reaching reforms to improve the investment climate. This includes a) expanding the access to infrastructure and reducing their costs, especially those of electricity, telecom services, and transport systems; b) reducing the cost of finance through proper management of the macro economy, c) political stability, d) security and e) enforceable and unrestrictive legal environment. Special attention should be given to developing regions outside the Western Province (cross reference - infrastructure).

Employment creation activities such as handcraft villages and job opportunities in development projects is unlikely to solve the problem of youth and female unemployment. Most unemployed youth and females are educated. They have both high levels of formal education as well as vocational and tertiary education (JobsNet analysis). The need is to increase jobs in the formal sector that target these unemployed groups.

Administrative costs of maintaining various social protection schemes for different types of employment groups would be very high, as such there is a need to consolidate these schemes. There already exist social protection schemes for farmers, fishermen, self-employed, etc. Also, many individuals shift from one form of employment to another. As such, it is not clear how segmented social protection programs can benefit individuals. Also, administrative work involved in evaluating eligibility criteria tends to be large for these different types of employees. It would be simpler to devise a common social protection scheme for all informal sector workers. Further, before introducing welfare schemes to promote employment, a proper cost benefit analysis should be carried out so that these schemes are sustainable.

6.2.2 Skill development and labour productivity

The Plan correctly identifies the need for skill development. The Sri Lankan education system should reorient itself to provide quality education to produce individuals who are ready for the world of work.

More attention should be paid to improve school to work transition and improving the quality of basic education. The quality of primary and secondary education levels should be upgraded, as this forms the basis for all other types of education. The Ministry of Education has already started various projects to uplift the quality of primary and secondary schools. It is important to see that these projects reach the communities that are in need of better schooling. At the same time, secondary education should be re-oriented to the world of work, so that children who drop out of school do not waste time adjusting to the world of work (cross reference - education). This entails curriculum development that is relevant for the work place and changing the structure of secondary education so that individuals receive the basic competencies that will enable them to qualify for tertiary and vocational training to meet the skill demands of the market.³¹

Public sector training programmes undertaken by various institutions should be streamlined; so that resources devoted to public sector training are used efficiently. Indicators for identifying the effectiveness and efficiency of vocational and tertiary training programs should be developed. Based on these indicators the cost effectiveness of vocational training programs should be systematically analyzed, so that vocational training programs can be continuously modified to meet the demands of the market.

The government's role in the TVET sector should be that of a regulator, rather than a provider. Upgrading and expanding the TVET sector should be done through private sector participation. Government should concentrate on correctly identified areas of quality control, certification, and collection, analysis and dissemination of information. Incentives should be given to promote private sector delivery of training. The present funds used for the delivery of unproductive training programmes can be re-directed towards providing financial assistance to students in the form of loans and scholarships so that even poor individuals can access good quality private sector training programmes. At the same time a system should be put in place to monitor and certify private sector training institutions so that potential students are knowledgeable about the quality of the training programmes.

Improving English and IT education are necessary conditions for improving skills, but not sufficient. More attention should be given to improving other types of technical education. Although many "good" jobs require the ability to communicate in English and the ability to work with computers, these are only basic requirements.

The proposed public sector reforms of cadre review, performance based incentives, depoliticization of public institutions, training policies for the public sector, and allocation of resources to ministries based on performance should be done urgently. In addition, merit based recruitments should be strictly enforced. However, given the current political environment in the country and the strength of different lobby groups would make making these changes difficult. These changes should be done with proper planning, with the participation of all stakeholders.

³¹ YEN action PLAN; World Bank (2005), "Treasures of the Education System in Sri Lanka: Restoring Performance, Expanding Opportunities and Enhancing Prospects".

The quality and coverage of the TVET sector and its accessibility to different population groups should be constantly monitored and improved. Jobsnet provides a ready source of data for monitoring the TVET sector. Jobsnet should collect systematic, comparable data using standard classifications so that it can be used as a source of data on the TVET sector. The Department of Census and Statistics should collect systematic information on training in their quarterly labour force survey, so that the effectiveness of various training programmes can be monitored.

Key areas where training should be developed should be identified, and the development of training programs in these areas should be facilitated. The success of training programmes depends largely on the quality of the trainers. In the areas where there are shortages of good quality trainers, importation of qualified trainers should be allowed, in the short-term (to avoid long delays in training domestic trainers prior to starting training programmes). At the same time, in the long term, systems should be put in place to train trainers of international standards.

6.2.3 Reforming Labour Laws

The need is not only to make labour law more flexible, but to reform laws to ensure the twin objectives of economic growth and social welfare. The challenge is to identify the areas needing reform – whether more regulation or deregulation — and undertake these to ensure both economic growth and worker welfare. International experiences on regulation and deregulation have resulted in mixed outcomes. Some countries have benefited from deregulation, while others have benefited from more regulation. These different outcomes are partly due to the differences in the geographic, political and economic contexts within which they have been enforced. The lesson for Sri Lanka is to identify needs of the economy and the workers and bring about reforms that facilitate growth at the same time safeguarding worker welfare.³²

What is important is not only to have the correct mix of labour laws, but also to ensure that they are easily understood, unambiguous and properly enforced. Implementation of labour laws in practice should be assessed, and complex labour laws that are difficult to interpret should be simplified. Outdated labour laws that are impeding economic growth should be identified and reformed. At the same time, laws should be introduced to protect workers who are inadequately protected. In this regard, changing legislation alone is not sufficient. Legislation should be easily understood, unambiguous and enforceable. Resources devoted for implementation of labour legislation should be examined and their cost benefits evaluated. Labour laws that are too costly to enforce, or are misinterpreted regularly should be reformed. The officials, involved in implementing legislation should be given proper training, proper authority and the resources needed to carry out their tasks.³³

³² Brassard Caroline, Sarthi Acharya (2006), "Labour Market, Regulation and Deregulation in Asia – Experiences in Recent Decades", Academic Foundation, New Delhi.

³³ Ibid, WB and the International Finance Corporation (2006), "Doing Business 2007 -- How to Reform", World Bank, Washington D.C.

More resources should be devoted to implementing laws that prevent worse forms of labour (e.g., child labour). Punitive action against violation of labour laws should be undertaken only in the presence of extreme cases. In other cases, law enforcement should take place through incentives or self monitoring, so that resources needed for monitoring compliance is minimized.

Alternate means of law enforcement should be used, to minimize costs. Proper enforcement of law can be achieved through different means, sometimes with minimum state intervention. ‘Command and control’ tactics of law enforcement should be limited to preventing worse forms of labour. In areas where, workers’ immediate welfare is not at risk, other forms of enforcement can be used. Other ways of making enforcement of labour laws more effective without state intervention, include using unions to monitor enforcement, and introducing self-regulation practices.³⁴

Unemployment insurance should not be given to all, as recommended by MC. However, this is not recommended for a country like Sri Lanka, where the majority of the unemployed are long-duration first time job seekers, for several reasons. 1) In most countries, unemployment insurance is given to workers who have being employed over a time period, and made contributions towards unemployment insurance. As such first time job seekers are not eligible for unemployment insurance. 2) Providing unemployment insurance for all can actually lengthen the job search period of the country, and may increase the unemployment rate. 3) Only workers that are laid off due to structural adjustments should be eligible for unemployment insurance.

Unemployment insurance can play a role in improving labour flexibility, if properly implemented and financed. Unemployment insurance can improve on the high cost of termination of workers, and reduce the costs of law enforcement. However, unemployment insurance should be funded through a contributory scheme, where workers and employers can contribute to a fund, and workers who have contributed to the fund for a specified period – usually about two years – can be allowed to benefit from the insurance. It is very important that the unemployment insurance is a contributory scheme in Sri Lanka, especially since the majority of workers in the formal sector are non-poor, while most poor are workers in the informal sector. Unemployment insurance should be made available only for a period less than six months. The unemployed should be helped to find new jobs, through retraining or facilitating job search. (In some countries, individuals are required to show that they are actively searching for a job before receiving unemployment payments. However, the monitoring job search behaviour can be very costly. As such, it is not recommended for Sri Lanka).

6.2.4 Ensuring Proper Social Welfare to Workers

The need is for improving workers’ welfare, regardless of whether they have clearly defined employers or not. Improving employer employee relations is only one aspect of improving worker welfare. Not all workers have clearly defined employers (e.g., workers in the informal sector).

³⁴ Brassard Caroline, Sarthi Acharya (2006), “Labour Market, Regulation and Deregulation in Asia – Experiences in Recent Decades”, Academic Foundation, New Delhi.

Innovative schemes should be developed to provide social-protection to the informal sector. Government should facilitate the association of informal sector groups so that they can identify their needs and can take collective action to common problems. Labour laws should be expanded to include those in the informal sector where possible. Present labour laws are applicable to workers in the formal sector, where there are clear employer employee relationships. Labour laws should be amended to cover the rights of the casual and contractual workers.

Enforceable legislation and an efficient and accessible legal system are important in ensuring workers' welfare. The legal system should be able to settle disputes quickly and fairly. It should also be easily accessible. Lengthy drawn out legal battles are more costly to individual workers, than to big companies who can hire lawyers to attend to legal battles. As detailed earlier, labour legislation should be simplified and streamlined and made more enforceable.

7. Education

7.1 Overall Policy Framework of the Ten Year Plan: An Overview

The TYP education policy envisions "protecting the right to free education for all children while providing widest possible opportunities to acquire quality education at higher and vocational levels according to ability and preference". The development plan for the education sector is in three sub-sectors: general education, technical and vocational education and higher education.

Policy guidelines set out to ensure equitable opportunities in basic and secondary education recommend setting up of a regulatory enforcement mechanism to ensure primary education to all; a viable network of schools at each divisional level by creating, restructuring or networking of existing schools; non-formal education facilities for out-of-school children; and, an open learning and a variety of multi-media learning facilities. In addition, in order to improve the quality of basic and secondary education, the TYP includes strategies to modernize primary and secondary education curricular with systematic links between different levels and to establish a comprehensive teacher development framework. There are also some measures outlined to improve governance, efficiency and service delivery in education such as capacity building programmes and performance appraisal schemes for educational personnel, etc.

As outlined in the TYP, efforts to enhance the technical and vocational education sub-sector comprises policy recommendations to improve the quality and relevance of programmes, enrolment in technical and vocational institutions from secondary schools and the workforce, operational and managerial efficiency of technical and vocational education institutions, quality and opportunities for upward career path, uniformity in national standards, the relevance of courses, and operational and managerial efficiency of technical and vocational institutes.

With regard to the higher education sector, several broad policies have been identified in order to formulate strategies such as: 1) increase access by enabling more choices in courses, modes of learning and alternative institutions; 2) enhance quality and upgrade standards with emphasis on employability and social harmony

and to cope with national development needs; 3) foster a culture of scholarships and research and; 4) ensure accountability, sound performance and financial sustainability.

7.2 Assessment of the Proposed Strategies and Policy Options

7.2.1 General education (primary and secondary education)

As correctly identified in the Plan, the challenge for the general education sector is to improve quality and relevance of education while ensuring that existing levels of access to education are maintained or improved. Sri Lanka already has achieved 100 per cent enrolment and completion rate at the primary level. However, at higher levels of general education, these rates are less than perfect. At the same time, the need to improve quality of education - i.e., improving mastery levels of first language and mathematic skills, success rate at O/levels, and competencies in life skills - has come to the forefront. There is also a pressing need to expand and improve science, English and IT education and modernize and diversify school curricula to prepare students for diverse career paths (at present more emphasis is given to prepare students for higher education).

7.2.1.1 Governance and management

As identified in the Plan, there is a pressing need to improve the existing outdated management and governance practices in order to improve delivery of education in an efficient and effective manner. The existing education administration is complex, expensive and un-coordinated. The functions of different education departments at various levels (i.e., national, provincial, district, etc.) should be determined with a view to improving efficiency and effectiveness. Resource allocation should match the responsibilities (e.g., since the 1997 education reforms, there has been a gradual movement towards decentralizing, with greater administrative functions being given to the peripheries). There is a need to rethink resource allocation to match revised responsibilities.

Devolution of education management to school level should be done with proper planning; otherwise existing gaps in education outcomes will persist or increase. International experiences on devolving education management have mixed results. The success of devolved management is dependent on a) the availability of basic resources at school level, b) effective support system for the schools, c) advice to schools on their performance and information on the performance of other schools, and d) the competency and capability of school principals to work towards the education goals of the country. It is important to properly develop these support functions and ensure adequate capacity at the school level, for the school decentralization initiative to be successful (De Grauwe, Anton, 2005).

There is a need to identify new sources of revenue for the sector, in order to improve quality and relevance of education. The existing levels of government investments in Sri Lanka are low compared to those in other countries. Given current budget constraints, it is unlikely that the government can increase investments in the sector substantially over the next decade. This means that the sector will need to identify new ways to generate funds in order to meet existing challenges.

7.2.1.2 Access and quality

Improving enrolment and retention rates at higher levels of secondary education should involve improving returns to education. The opportunity costs of education increases as children age. In order to keep children in school, especially at higher levels of education, the system should ensure higher returns to education. This involves, improving the quality and relevance of education as well as improving the employability of youth (cross reference with youth employment).

The main obstacle in the improvement of language and mathematics skills, and expanding and improving IT, English and science education is the lack of teachers and difficulties in deploying teachers to remote areas. At present, teachers are forced to serve in remote areas. However, this has resulted in high turnover of teachers in these areas. Special incentives should be put in place to retain teachers in remote areas. In providing incentives, it is important to take into consideration the needs of the teachers as well as their families (e.g., some teachers may want to move to urban areas to send children to schools or to find work for their spouses). In some subject areas, it is not easy to train teachers in the short term (i.e., English and IT education). In such instances, the government should consider importing teachers, until properly trained teachers can be produced locally, so that the country can keep up with the changing global demands.

The school curriculum should be modernized and diversified, as stated by MC, so as to equip students with competencies to fit a diverse set of career paths. The present curricula are mainly intended for preparing students for higher education.

There is a need to regulate the standards of private schools. Given the high level of competition and the difficulties in entering good government schools as well as the relaxation of regulation on private schools, there has been a recent upsurge of private schools in the country. There is a need to monitor and evaluate the education delivery of private schools, to ensure that these schools adhere to proper education standards.

Teacher training and retraining and quality assessments should be compulsory to enhance the quality of teachers which is necessary in achieving the specified goals of the development plan.

7.2.2 Higher education

The Ten Year Plan correctly identifies the need to expand access to higher education. The challenge is to do this while improving the quality and relevance of university education. The consistent problem of unemployed graduates is the result of a university system that does not produce graduates who meet the demands of the market. Increasing the current number of graduates, without improving the quality of university education will increase the number of unemployed graduates and could lead to social and political unrest. The need therefore is to expand university education in subject areas that are in demand, and produce graduates who are ready for the world of work.

University education should be reformed to improve employability and research capacity, through improved management and funding. This would involve the following: (i) modernizing existing facilities in universities

to international standards; (ii) curriculum development parallel to global changes; (iii) focusing on skills rather than exams; (iv) development of research capacity; and (v) merit based promotion of university staff taking into account both teaching excellence as well as research outputs. Two major obstacles in this area are the present governance structure of universities and the lack of funds available for implementing changes.

There is a pressing need to improving investments in tertiary education. At present, the government is the main provider of university education in the country. The present levels of funding available for universities are not sufficient to bring about the necessary changes to the university system. Universities should be given the authority to raise funds themselves - through conducting fee based courses, and putting university facilities for commercial use, etc. Part of the cost of education can also be recovered from students who are able to pay.

7.2.3 Technical and vocational training (TVT)

Funding deficiencies and unplanned expansion has plagued the TVT sector with problems of low quality, overlap of courses, lack of relevance, inefficiency, high drop out rates and under-utilization of resources. Various policy documents have pointed out the major challenges for the sector. These include: (i) improving and upgrading courses offered by the sector to meet the demands of the modern market; (ii) improving and modernizing facilities available at the training institutions to increase relevance; (iii) improving the quality of training through recruitment of competent trainers (national or international); and (iv) establishing linkages with industry and universities for the purposes of curriculum and research development.

Government should move away from being the main provider of training. The Plan correctly identifies the lack of coordination amongst the vocational training institutions in the country. However, the need is not to increase the number of training institutions (as envisaged by MC), but to streamline the existing training institutions and to improve the quality and relevance of teaching.

Government should undertake the role of facilitator and regulator for private sector training providers. Private sector vocational training institutes should be regulated. Information about the types of courses offered by them and the success of different institutions in finding jobs for their graduates should be looked at. All private sector vocational training institutions should be made to reveal this information to their students. An accreditation system should be established for vocational training institutions so that students can judge the quality of the training that they will receive.

Little is known about the TVT sector, partly due to lack of information on the sector. More systematic information on the sector should be collected and evaluated so that timely changes can be made to improve the sector. New sources of information on the TVT sector such as Jobsnet should be used effectively to obtain periodic information on the TVT sector for development of the sector. This information should be analyzed regularly (at least twice year) to ensure that vocational training institutions are able to meet the following: (i) attract individuals for their training programmes; (ii) they are able to teach skills

that meet national and international standards; (iii) they produce graduates in areas in demand in the country; and (iv) they are able to secure jobs or further learning opportunities for their graduates.

As correctly identified in the Plan, implementation of National Vocational Qualification (NVQ) system is a significant development in the sector. This has fulfilled the need for quality control within the TVT sector and has also provided avenues. Awareness program about the NVQ system and expansion of the NVQ to occupations that are currently not covered (at present NVQ covers 45 occupations) are recommended to improve the system.

8. Health Sector

8.1 Overall Policy Framework of the Ten Year Plan: An Overview

The main focus of the health sector is to "ensure 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". The development plan for the health sector consists of structural changes, more decentralization of health care services, changing and improving financing and administration and management of health care services.

The main strategies of the government health policy under the Suva Sevana programme can be summarized under 1) preventive and curative services; 2) drugs and pharmaceuticals; 3) health information; 4) health insurance; 5) human resource development; and, 6) indigenous system of medicine.

The strategies to improve preventive and curative services highlights the role of public investment in healthcare, streamlining of preventive care services, effective control of major communicable diseases and non-communicable diseases, expansion of curative care services, introduction of effective and affordable new technologies and innovations, expansion of national cancer prevention and treatment programmes, implementation of quality assurance strategies and a well defined referral system and reforms for organizational structure and management of the healthcare sector on the whole.

Policy directions under drugs and pharmaceuticals sub-sector are aimed at ensuring availability and affordability of effective and good quality drugs, sufficient funding for procurement and supply of necessary medicines, and expansion of local production of drugs. In addition, steps are to be taken to develop a health information policy through an IT enabled health information system connected to all hospitals. The existing health insurance schemes are to be continued with further improvements, while new schemes are also to be introduced. Further, several human resource development programmes will be implemented to improve efficiency, productivity and working norms of the health sector personnel.

Apart from the measures to develop the mainstream healthcare services, some strategies have also been highlighted to develop an Indigenous System of Medicine (ISM) through provision of necessary facilities to Ayurvedic healthcare personnel, support services to encourage traditional medicine system, private

sector investments to strengthen the industrial base of the sector, and specific training programmes to develop human resources.

8.2 Assessment of the Proposed Strategies and Policy Options

Successful implementation relies heavily on the coverage, distribution of resources, access and resource utilization. The primary objective is therefore, to improve the quality and efficiency of the health care service, address the problem of inequity of health care access, while meeting the challenge of resolving the health service delivery problem in a manner that is financially sustainable. The Ten Year Plan has rightly identified the major issues pertaining to health care delivery, including:

- Health financing
- Access to quality and modern health care services for all, especially for low income groups and most vulnerable in society
- Availability of affordable quality medicinal drugs
- Equity in delivery of health care
- Addressing pre-natal and neo-natal mortality
- Epidemiological transition
- Slow progress in combating communicable diseases
- Formalized referral and counter referral needs
- Identifying the scope of preventive facilities, and needs of human resource deployment
- Re-defining the service delivery system by making functional adjustment with an integrated approach to strengthen preventive, curative and welfare services to maintain a healthy society
- Health insurance to vulnerable groups

To achieve the desired objectives, there is a need to phase-in targets and strategies which could be implemented, while maintaining existing services in an uninterrupted manner. Addressing the above issues will strengthen and improve the quality of existing services and will enable the government to identify lapses in health care delivery system and overcome bottlenecks.

8.2.1 Strategies

The most important action that addresses all issues is the need for reforms that incorporate the process of coordinated health and human resource development. This requires the active participation of health policy planners, health sector professionals, civil society and the general public. As a starting point, a critical appraisal of the current state of human resource development in the health sector is recommended.

Health financing needs to be increased. It is recommended that government investment on health is increased to 4 per cent of GDP from the current 2 per cent within the planned period, with an increase of a minimum 0.4 per cent of GDP spending on health annually to provide financial support to meet the proposed development objectives and new health challenges that could emerge with the growth in population projected at 21.9 million by 2016.

The public sector spending on health is a necessary but not a sufficient condition for improving health outcomes of all. The health system consists of parallel public and private sectors, but private provider services are mainly concentrated in urban localities. Over crowding, long waiting list in public hospitals, and channel practices have created demand and drawn the attention of private sector investment in hospital industry in urban areas and not as the primary providers of outpatient care in rural areas. The private sector hospital industry benefits from a range of incentives such as provision of prime land, grant of customs duty exemption for import of sophisticated medical technology under BOI, etc. These incentives have been utilized primarily by urban based institutions that do not provide free service to the poor. Therefore, the burden of providing primary health care is an obligation of the public sector, and providing finance to improve the peripheral level delivery needs serious attention.

Provide access to quality and modern health care services to all, especially to meet needs of low income groups and most vulnerable in society. A strong primary health care system is central to improving the health of the population, and in particular tackling inequalities of health. Health care facilities at primary and peripheral level can be strengthened by ensuring the availability of affordable quality drugs, physician paramedical staff and necessary infrastructure, strengthening the immunization facilities, screening of maternal and infant health at primary level as key areas that need attention.

Further, the key areas that need attention to achieve the set goals in primary care identified in the Plan include the following:

- Identify community-driven initiatives that are achieving results or that have the potential to do so
- Identify ways they can respond to communities' needs and interests
- Advise communities and provide them with health information to help them meet their needs and fulfil their interests
- Help communities to access the optimum mix of resources to achieve their own goals
- Adapt policies, programmes and funding to support successful community initiatives
- Implement programmes to reduce health inequalities

Addressing health inequalities is a major priority identified in the proposed commitments of the Plan. In this context, the most effective means to reduce disparities should focus on the following:

- Inter regional approaches with central MOH and Provincial Health Services (PDHS) as the key players. There is the potential to reduce health inequalities through an improved focus on prevention and management of chronic diseases and their disabling consequences, especially by using health promotion approaches and primary care programmes. Effective action, therefore, relies heavily on strong and effective relationships at Central and Provincial levels. Although many good relationships already exist, these can be widened and strengthened with a view to ensuring the new structural changes continue to contribute to reducing health inequalities. Key relationships should be those within and between the following:
 - Use of prevention strategies, with a population health focus
 - Building on existing initiatives

- Modifying behaviour and lifestyle risk factors through appropriately tailored policies and programmes
- Improving delivery of treatment services through mainstream enhancement and provider development.

The above identifies the necessity to have access to nursing care and midwifery services at primary level as an integral part of service accessibility of the care delivered by the health system. Unfortunately, the situation in backward areas in rural Sri Lanka is being undermined by various issues such as shortage of nursing and midwifery personnel, poor working conditions and mal-distribution. The Ministry of Health is responsible for staffing of health institutions, pursuing longer-term strategies to address nursing shortages, including investing in nurse education and improving working conditions. However, a lack of nursing school capacity remains an important barrier to meeting long-term nursing needs. Although recent attempts to fill all nursing vacancies suggests potential easing of hospital nurse shortages, nurse staffing will likely remain an important issue for health care providers and block access to care, mainly at primary level in the coming years.

Maintaining equity in health financing, human resource allocation, facilities available in order to minimize provincial and inter-district disparities is critical. A high proportion of government funding for the health sector is distributed to the urban centres and tertiary health care services, benefiting a segment of people who possess affordability to obtain medi-care services from private health care providers. Further, the public health care system faces various problems in service delivery. These include inadequate number of staff, particularly paramedical staff at secondary and peripheral level, staff absenteeism, lack of essential drugs and consumables, discriminative staff attention to patients coupled with corruption, etc.

Implement Essential Medicinal Drug Policy. Drug availability is important as drugs offer a simple and cost effective way of treating many health problems. Inadequate drug supplies in public health care institutions lead to lower utilization of the services provided in these institutions. Availability of drugs and distribution of it through primary health care networks including Central Dispensaries (CDs) will enhance functioning of primary health care services. Advance procurement of essential drugs and maintaining a reasonable stock are critical.

Implementation of an Essential Medicinal Drug Policy is vital as there exists an unregulated pharmaceutical market with sub-standard, and sometimes out-dated and high priced medications sold to the unsuspecting consumer. Unregulated markets are often supplied with stolen and diverted drugs from government hospitals.

Effectively address pre-natal and neo-natal mortality. Effective implementation of incidence of pre-and post-natal medical consultation should be given a high priority. Attention should be focused on the provision of health education, informing and motivating on family planning, family health and hygiene. The most challenging task in Sri Lanka is to reduce pre-natal and neo-natal mortality. The reason for such mortality rates could be linked to the mother's health and nutrition status during pregnancy and her access to quality pre-natal care at delivery and post-natal care thereafter. According to the Family Health

Bureau, approximately 83 per cent of reported infant deaths have occurred during the neo-natal period (1-28 days) while 61.5 per cent occurred during the early natal period (1-7 days).

More attention should be aimed at the estate sector as mortality rates are relatively high in the estate sector where nearly one in every 20 infants die in the first year of life. In the estate sector, mortality levels are highest among children born to women below 20 years of age, especially infant mortality where 21.5 out of every 1000 births occur. Post-neo-natal mortality is highest (6.1 per 1000 live births) among women in the 20-29 age group.

Epidemiological transition and combating communicable diseases. Initiate action through public health programmes addressing social determinants of health in order to have a specific public health impact assessment at a population level, such as level and distribution of infectious disease, reproductive health and/or non communicable diseases outcomes.

Formalize referral and counter referral needs. It is important to strengthen the referral system to overcome overcrowding of hospitals and long waiting time. This can also ensure effectiveness of health administration and other health care providers. Awareness at community level also needs to be created.

A key priority in this area is for the Government Hospitals to reduce waiting times for out-patients treatment and elective (non-emergency) hospital surgery and treatment. Appropriate improved access to elective services is highly valued by the public and, therefore, is important to ensure confidence in the public health system generally.

District hospitals and Base hospitals will need to place priority on reducing waiting times, offering patients certainty and ensuring appropriate care for patients seeking treatment. Specifically, the Ten Year Plan strategy to reduce waiting times should be carried out with four key objectives to achieve better outcomes as set out below:

- Nationally consistent clinical assessment
- Giving patients certainty
- Improving the capacity of public hospitals (i.e., NHS,PH,DH,BH)
- Improve liaison, especially between primary and secondary levels.

Provision of health insurance to vulnerable groups. Health spending continues to rise in all countries and, if current trends continue, governments will need to raise taxes, cut spending in other areas or make people to pay from their own pockets in order to maintain their existing healthcare systems. At present, scarcity of essential drugs in hospitals has forced vulnerable populations to purchase pharmaceuticals from private sources at unaffordable prices.

Health insurance coverage should be introduced to the poorer section of the population as every household is spending a significant portion of household income for purchase of medical goods and payment for laboratory services and diagnostic tests from the private sector. Private expenditure consisting of direct out-of-pocket expenditure of households as health insurance is still negligible at 1 per cent of total health

expenditure. It is also important to introduce subsidized health insurance for the informal sector (usually rural) workers and their families, or at least for the poorest.

9. Environment and Natural Resources

9.1. Overall Policy Framework of the Ten Year Plan: An Overview

The major policy objectives that are targeted to be achieved through the strategies proposed here can be summarized as 1) Conserve the natural environment for the protection of essential life support systems; 2) Utilize productive natural assets for human welfare and development in a sustainable manner; 3) Safeguard and enhance the critical natural and ecological processes for the benefit of present as well future generations; 4) Preserve the living comfort, aesthetic beauty and scenic and recreation values of local environments; 5) Minimize the damage to environmental resources due to unplanned development activities and adverse technological interventions ; 6) Minimize the depletion of environmental resources due to poors' struggle for survival; 7) Reduce the vulnerability to increasing risk of natural hazards and minimize the damage from disaster incidents; 8) Face the challenge of global environmental threats through prevention, mitigation and adaptation.

Strategies proposed under the plan can broadly be categorized as follows:

1. System-wide strategies/improvements for integrated management of environmental resources (IMER)
2. Individual sector strategies (within the integrated management framework.). These strategies broadly cover strategies for sustainable production from productive natural assets (i.e., Forestry and wildlife resources; Fisheries, coastal and inland aquatic resources; Mineral resources) and strategies for conservation and protection of environment and natural resources
3. Strategies for mitigation of natural hazards and disaster management
4. Strategies for overcoming the threat of global environmental problems
5. Sustainable implementation of proposed 10 year plan interventions

Specific strategies proposed under each category are discussed with rationale for and their direction of activities in the forthcoming sections.

9.2. Assessment of the Proposed Strategies and Policy Options

9.2.1 System-wide strategies/improvements for integrated management of environmental resources (IMER)

Environmental resources are essentially interrelated with each other, physically as well as socio-economically. Therefore, sustainable development demands an integrated approach for management of environmental resources in the country. Despite significant efforts by the Ministry of Environment and Natural Resources to build a close coordination among different agencies, the system still functions as a non-integrated, sector-based entity which is handled by a large number of agencies with little coordination among them.

Rationalization of existing policies/strategies and action programmes under an integrated framework for environmental management. In Sri Lanka, policies/strategies applicable to different environmental resources are spread over a number of policy statements, legislative enactments, development plans and programs, regulations and procedures, guidelines and protocols which are mandates of agencies coming under several line ministries. The first step towards introducing an integrated system of management should be orientation of this complex arrangement into a workable framework of integration. Therefore, efforts should be undertaken to rationalize existing environmental policies/strategies to achieve a certain level of harmony among them. This will be attained through the following measures.

- a) Review of major environment related policies/strategies to identify the ways to organize them under a coherent integrated framework
- b) Rational alignment of various plans/programmes/projects in line with the integrated framework of policies/strategies
- c) Screening of at least major legislative enactments that affect the environment with the objective of elimination of inconsistencies and removal of barriers for effective implementation

Establishment of a pragmatic institutional mechanism for integrated management of environmental resources. Even though the Ministry of Environment is mainly responsible for the environment sector in Sri Lanka, there are a number of other line ministries, agencies and local authorities with mandates which are strongly related to environment and natural resources. There are also INGOs, NGOs, private sector and community involvements too. Objectives of an integrated system of environmental management cannot be achieved without creating a strong linkage between these agencies and stakeholders. Therefore, new mechanisms that can build a more fruitful coordination between different stakeholder organizations should be introduced. The objective of this mechanism is to form strong, enforceable linkages among relevant government organizations for conservation of environmental resources.

Establishment of a National Integrated Environmental Information System (NIEIS). The success of a modern integrated system of environmental management depends heavily on the availability of comprehensive and reliable data on interconnected resources compiled over spatial and temporal dimensions. Currently, different line agencies gather information on individual resources that are coming under their purview and some have developed own data bases. However, due to limited coordination among agencies, there are limitations to get the maximum benefit out of such information. Therefore, steps will be taken to establish the National Integrated Environmental Information System (NIEIS) and to maintain and update it on a regular basis with the collaboration of all organizations which collect information on environmental resources. Given the establishment of NIEIS is an extensive undertaking, it will be implemented through a consultative process that involves all levels of stakeholders in stepwise manner.

Generating 'green finance' for environmental management. One of the major limitations faced by the environment and natural resources sector in general is lack of sufficient funds to implement policies for sustainable development. However, the world is moving towards management options that are capable of generating 'green' funds from the environment itself. Under the proposed Integrated Environment

Resource Management approach maximum attention will be directed to adoption of suitable self-generation measures of funds from the environmental sector itself. These funds, to the extent possible, will be ploughed back to improvements of the sector itself through an independent, decentralized decision making process.

9.2.2 Individual sector strategies

9.2.2.1 Strategies for sustainable production from productive natural assets

Forestry and wild life resources

Management of natural and plantation forests for wood and non-wood forest products. Natural forests other than strictly protected categories, state and privately owned forest and other plantations will be brought under systematic management to meet the national demand for wood and non-wood forest products as well livelihood needs of local communities. Accordingly, scientific management plans will be developed for all kinds of protected areas, forests and plantations to derive maximum economic benefits from them in a sustainable manner without depleting the stock of resources. Suitable best practices, guidelines, standards and procedures to be adopted in such productive ventures by the state as well as the private sector will be developed and implemented.

Increasing the supply of wood and non-wood products from sources other than natural forests. Presently, sources other than natural forests fulfill the significant share of timber and other wood and non-wood products. Such sources include plantation crops, inter-cropping systems and home gardens. It is certain, with rapidly growing demand and limitations to the supply from natural sources to meet the demand, that this share has to be increased in the future. Therefore, supply of wood and non-wood products from sources other than natural forests will be encouraged through suitable incentive schemes and institutional mechanisms and private-public partnership arrangements and through the removal of the current constraints that operate against private initiatives for growing trees and woodlots, harvesting, transporting and processing of them.

Introduction of new products/technologies and increasing the efficiency of existing industries. Rapid dwindling of natural eco-systems while the demand for products from them is rapidly increasing has encouraged worldwide search for alternative materials, more efficient technologies, reuse of products and utilization of waste and substitute materials. In Sri Lanka, due attention has not still been directed at these alternatives in sufficient scale in spite of certain pioneering efforts undertaken by a few concerned parties. Hence, necessary initiatives to promote such efforts will be undertaken by conducting research on alternative materials/products and technologies, introduction of efficient technologies and by facilitating the establishment of new industries based on them.

Promoting the supply of non-timber forest products through domestication and development of rural industries. Non-timber forest products fulfill significant livelihood needs of peripheral communities while supporting numerous rural industries. Declining natural forest cover has increased the scarcity of such materials thereby prompting illegal and destructive harvesting from protected forests. Therefore,

domestication of such species will be promoted by providing assistance to cultivate them as commercial plantations, agro-forestry systems or as home garden crops. Necessary measures also will be initiated to build the capacity in relevant organizations for research and technology development, training and human resource development and extension.

Exploiting the potential of bio-prospecting for national gain. Modern scientific and technological advancements have opened up enormous prospects for developing value added, commercial products out of this wealth such as life saving drugs, new crops and industrial products, which have scarcely been explored. However, development of this opportunity has largely been backtracked by various attempts on bio-piracy as well as the high risk nature of investments involved. Therefore, a systematic scheme will be initiated to identify, assess and implement potential bio-prospecting ventures with all necessary precautions to safeguard national interests while protecting the rights of local communities too.

Harnessing the recreation value of protected areas. In addition to high bio-diversity, Sri Lankan forests and national parks are well known for high scenic and recreation value and the country can benefit from it by properly managing these sites for eco-tourism. Accordingly, a systematic program will be developed and implemented to improve the current revenue from the protected area network of the country through promotion of eco-tourism. The program will include site specific management plans for each selected site to capture its unique recreation value to the optimum level with suitable measures to safeguard ecosystem values as well.

Fisheries, coastal and inland aquatic resources

Speedy recovery from tsunami damage. Fishing industry is the most affected economic sector due to 2004 tsunami in terms of loss of lives, destruction of crafts/gear and damage to infrastructure. The sector is still struggling to revive from the damage caused by the disaster. Therefore, ongoing rehabilitation efforts will be strengthened to recover from the shock as quickly as possible. Accordingly, priority will be given to rebuild damaged infrastructure, recover the fleet strength, compensate for livelihood damages and personnel losses, provide housing and to reorganize the industry for reducing its vulnerability.

Undertaking resource surveys and census of fishers. Sustainable management of the fishing industry cannot be achieved without adequate information on resource situation, current level of exploitation, potential gains and threats and livelihood conditions of the fishing community. This has created various difficulties in management and enforcement of fisheries regulation in both marine and inland sectors. Hence, steps will be taken to conduct a scientific survey on fisheries resources by relevant line agencies with the support of relevant international scientific organizations too, as an urgent priority. This will be coupled with a 'census of fishers'. Further, necessary steps will be taken to build the capacity of relevant agencies to maintain the continuity of the system.

Introduction of co-management systems for coastal and inland fisheries. Establishment of co-management systems which are designed to match the specific resource and community situations has been recognized as the best strategy to overcome resource management issues as well as livelihood needs of coastal and

inland fishing communities, the world over. The essence of this strategy is the sharing of responsibility between community and the state agencies under non-private, commonly owned or open access rights to use resources. Even though the necessary legislative framework has already been introduced for over a decade, so far it has not been implemented with adequate vigour except in a few pilot locations. Therefore, action will be taken to promote the establishment of co-management systems in both coastal and inland fisheries with necessary commitment. The programme will essentially be undertaken with the participation of the fishing community and other stakeholders attached with resources concerned through a transparent consultation process.

Enhancing the offshore/deep sea fishing. Production from offshore and deep-sea fishing has increased steadily over the last decade and investment on this sub-sector has also increased significantly. However, it suffered a significant damage due to the 2004 tsunami in terms of loss of skilled fishers, infrastructure, vessels and fishing gear. While immediate attention is directed at fulfilling the ongoing recovery programme as early as possible, measures will also be undertaken to bring in an overall improvement in the sub-sector over the long-run by: (a) facilitating more investment on multi-day fishing operations by providing incentives to introduce more vessels, gear etc. (b) promoting public private partnership ventures for development of new and existing infrastructure, (c) introducing new vessels with improved technical facilities for more extensive open sea operations, (d) introducing new technology to reduce onboard and after landing post-harvest losses, (e) promoting long line fishing technology and other better practices of fishing and by, (f) improving the surveillance and monitoring capacity of territorial waters to prevent poaching as well as to assist local fishers.

Promotion of rural aquaculture through community-based nurseries and fish culture in village tanks. Fish being a renewable resource, production from coastal/marine as well as inland water bodies can not be increased indefinitely beyond certain sustainable thresholds. Beyond these thresholds, stocks are susceptible to depletion thereby effecting long run losses. Therefore, over the long run, while managing naturally occurring fish stocks in a sustainable manner for obtaining an optimal harvest, the country has to make a serious effort to develop aquaculture industries. One under-utilized resource with great potential for rural aquaculture development is village tanks with seasonal supply of water during a year. Recent attempts on promoting seasonal tank aquaculture as community-based ventures progressed slowly due to lack of adequate fingerling as well as various socio-economic and institutional constraints. Therefore, current efforts to promote rural aquaculture will be accelerated and enhanced by offering local solutions for scarcity of fingerlings by creating a network of community managed nurseries/hatcheries and by promotion of Farmer Organizations' based fish culture programmes.

Rehabilitation of shrimp industry in the North Western Province and expanding the industry to other potential areas. Among other aquaculture enterprises, shrimp farming has become the most lucrative industry with a secure export market. However, this industry faced significant drawbacks due to haphazard developments, leading to serious disease outbreaks and environmental damages. Currently, the industry has largely been concentrated in the North/Western Province. To overcome the problems faced by the industry necessary steps will be taken by providing required facilities, manpower skills and infrastructure

developments until the shrimp industry in the area will be converted into a sustainable farming cluster with a proper zonal management system. Simultaneously, necessary actions will be taken to promote and expand the industry into other suitable locations in the country under appropriate public-private partnership arrangements to establish infrastructure facilities for farming estates with zonal management systems.

Promotion of small-to-medium aquaculture ventures. Besides shrimp farming, there are a number of other aquaculture enterprises with significant potential in Sri Lanka. Such enterprises include aquarium fish, freshwater prawns, sea bass, milk fish, oysters, red and GIFT Tilapia, crab and beche-de-mer. Steps will be undertaken to promote successfully demonstrated enterprises in a country wide manner by providing technical assistance and training, access to financial and land resources and by creating necessary policy and institutional environment for sustained growth of such industries.

Mineral resources

Intensification of exploration of economic resource deposits. Mineral resources are exhaustible resources. Therefore sustainable development of mineral resource industries depends largely on successful exploration of new economic deposits of different types of mineral resources. Therefore, current efforts of exploration of mineral resources will be improved by enhancing the capacity of the Geological Survey and Mines Bureau (GSMB) to acquire new scientific facilities, modern technologies and manpower skills to upgrade its efforts. Further, investment on exploration of mineral resources by the private sector will also be encouraged by providing them with opportunity to undertake scientific surveys by entering into suitable partnership agreements with the state under mutually beneficial terms and conditions.

Enhancing the scientific-technological base of mineral resources and industries. Development of mineral resource industries depends largely on the adoption of scientific methods survey, exploration, extraction and processing. In this connection, the current level of development in Sri Lanka cannot be considered as adequate. Therefore facilities and resources necessary to enhance this situation will be provided to relevant government line agencies, universities, research organizations as well as to stakeholders of local industry. In addition, mineral resource ventures, which invest on modern technological facilities either as joint ventures or public-private partnerships will be encouraged through suitable incentive schemes.

Increasing of value addition. Investment on value added industries based on mineral resources from both local as well as foreign sources (with local partnerships) will be encouraged to derive more value for local resources than present by elevating them from current primary level production. This process will be facilitated in all spheres of activity from scientific exploration to exporting of final products in value added form from small enterprises to large-scale industries depending on the nature of industries involved.

Revitalizing economic utilization of already discovered resources. Some of the economic deposits that have been discovered of various mineral resources are currently been unutilized or under-utilized due to various reasons. Few are utilized as raw industries without adequate value addition also. To improve this situation a comprehensive plan of national mineral resources will be prepared with the objective of utilizing these resources for their best possible contribution to the national economy under present

conditions. All future developments in the mineral resource sector will be undertaken according to the priorities identified in the plan.

Exploration of the marine mineral resources. Sri Lanka is vested with exclusive rights for mineral and other resources occurring in the seabed surrounding the island covering an area which is equivalent to 23 times of the land area of the country. In addition, Sri Lanka is entitled for exclusive use of all resources including seawater and fisheries within the Exclusive Economic Zone (EEZ). Seabed and seawater have been identified as rich sources of minerals including commercially valuable ones. The country has so far not taken any serious effort to utilize this vast resource base. Extracting minerals from marine sources are usually costly undertakings that need the support of advanced technologies. Accordingly, necessary steps will be taken to enter suitable agreements with local and international partners who have necessary technological capacity to explore marine based mineral resources belonging to Sri Lanka. Based on the outcome of such explorations, necessary further action will be entered upon for productive undertakings.

9.2.2.2 Strategies for conservation and protection of environment and natural resources

Integrated management of land resources

One of the most sensitive environmental issues in the country is widespread degradation of land resources. While soil erosion in central highland areas are particularly alarming with a number of external effects running over several sectors of the economy, land resources in low country areas also are not in a healthy status of management. Therefore, land resources in the country are in a situation that needs immediate policy attention.

Strengthening the necessary legal/regulatory framework for sustainable management of land resources in the country. Legal and regulatory framework relating to the land sector in the country is a quite complex system. Despite that it provides a little support for adopting a scientific land management approach and many legislative enactments such as the Soil Conservation Act have become quite ineffective. Therefore, steps necessary to revise existing land management legislation so that it will be more acquiescent with modern scientific land resource management principles will be introduced. This will be implemented through a consultative process wherein ideas of all relevant, major stakeholders shall be taken into consideration.

Development and implementation of physical planning framework for all development and conservation activities. The foundation of modern land management is planning and it is more imperative for successful land resource management even than legislative/regulatory measures. Hence, necessary measures to bring all development and conservation activities within a proper physical planning framework will be undertaken. This will be commenced by adopting the National Physical Planning Policy and Plan and the National Land Use Planning Policy with due importance and gradually streamlining all types of development activities under corresponding levels of plans applied for respective activities such as zonal plans, regional plans, country and town plans, district plans, division plans etc. In line with the physical planning framework critical areas such as erodible areas, land slide prone areas, special management areas etc. will be identified and declared. Guidelines will be developed for land use and infrastructure

development activities in such areas while minimizing economic activities, which are damaging to local environments. Action will be taken to introduce suitable regulatory measures to enforce such guidelines in a strict manner. Special attention will be given to promote conservation oriented land uses and land management practices such as SALT method, conservation farming, agro-forestry, inter cropping etc. in critical areas. Emphasis will be given to create a more conducive environment for adoption of such practices by introducing suitable incentive structures.

Strengthening necessary institutional capacity for implementation of land management policies in critical areas. The weakest link of the land management system is implementation and monitoring. Even though the country has a large number of land related agencies that are functional at national, provincial, district and division levels, enforcement of even key land management laws are quite weak. The situation cannot be improved without strengthening the institutional capacity of land management agencies with modern facilities, technology, training and skills development. Therefore, action will be taken to strengthen the network of land management agencies in the country by providing necessary facilities, training and necessary skills. These developments will be aimed at effective monitoring of land degradation, ensuring compliance and enforcement against violations in line with proposed improvements in legal/regulatory and planning/policy spheres.

Introduction of guidelines/regulatory measures to prevent abuse of land resources taking place in booming real estate markets. Booming real estate markets in urban, suburban as well as rural areas have adopted a number of abusive practices with long term harmful effects. Indiscriminate clearing of vegetation, removal of top soil, inappropriate division of lands and infrastructure are some them. Guidelines will be developed to prevent abusive land development activities taking place in real estate markets with necessary regulatory measures to implement them.

Prevention of encroachment in critical areas and replacement of shifting cultivation with sustainable highland farming systems. One of the major causes which contribute to land degradation in Sri Lanka is encroachment for shifting cultivation. It has been responsible for significant damage to the environment in the country through its contribution to deforestation and soil erosion. The activity is still flourishing due to lack of attractive alternatives for certain poor communities. Conservation farming and other agro-forestry have been identified as suitable alternatives to replace shifting cultivation with permanent highland cropping pattern. Accordingly, attention will be directed to introduce sustainable farming systems as a participatory solution to address livelihood problems of targeted communities rather than a mere agriculture extension exercise.

Undertaking tree planting projects to stabilize degraded environments. There are various localities with degraded environments due to harmful human activities. They include environments such as eroded stream banks, degraded reservoir catchments, bare patches of sloping lands and deforested watersheds, which are vulnerable to various on-site and off-site losses. In many such locations, the most effective remedial measure is to restore the vegetation cover. Tree planting programs and campaigns will be implemented to rehabilitate such environments. Innovatively designed programs to suit specific conditions in localities will be launched with the support of community organizations, NGOs, private sector,

government agencies, local authorities and school children. In addition, the private sector will be encouraged to invest on such programs with potential high economic gains (e.g., riverine bamboos) by providing suitable incentive schemes and technical support.

Development of mining guidelines and strengthening enforcement and monitoring. Mining/quarrying industries are providing substantial support for the local economy through providing raw materials and foreign exchange. However, certain practices have been identified as responsible for land degradation and damage to local environments in considerable manner. Harmful impacts of gem/sand/clay mining and stone quarries have been particularly noted as they are widely taking place throughout the country in numerous, small-scale, local industries. To overcome this situation, suitable guidelines for location, establishment, operation and transportation of mining and quarrying industries will be developed and enforced.

Protection of watersheds and conservation of water resources

Development and implementation of a water resource planning framework based on scientific management of river basins and watersheds. Emerging challenge of water scarcity cannot be faced without adopting scientific methods of planning and management. To face these challenges, an integrated approach of water resource planning and management based on modern concepts of river basin management will be adopted with the objective of addressing both physical aspects of water management as well as socio-economic requirements in a participatory framework. Necessary steps will be taken to adopt scientific water management systems at all levels from the national to local grass root levels, replacing ad hoc, unplanned interventions.

Prevention of critical watershed areas from further degradation. Sri Lanka has a radial drainage pattern which is comprised of numerous streams and rivers that originate from upper watersheds located in central highland areas. Therefore, these upper watersheds are critical not only for the availability of water in central highlands but for the entire country. Recently, these upper watershed areas have come under various harmful human interventions with countrywide negative consequences. Steps necessary to overcome this harmful trend will be taken by identification and designation of most critical watershed areas under appropriate categories of protected area network.

Participatory management of watersheds. As advocated by the National Watershed Management Policy, programs for participatory management of critical watershed areas will be introduced with community support. Accordingly, suitably designed, area specific management plans will be developed to implement appropriate strategies for conservation of water, soil and vegetation cover in watersheds. Suitable incentives for promotion of conservation oriented activities as well as penalties against non-compliance will be identified with the consultation of stakeholders. Local institutions will be strengthened to obtain community participation in an effective manner.

Planning and management of optimal ground water use. From recent times, utilization of ground water from shallow and deep aquifers for irrigation as well as urban industrial uses has increased significantly. While this has caused serious concerns regarding rate of exploitation over recharge rates, significant

evidence has also surfaced to indicate that ground water resources are under the threat of pollution by chemical agents and sewerage in rural agricultural as well as urban areas. Unlike surface water, ground water can be considered as an unregulated common pool resource and hence susceptible to over-exploitation and pollution. Therefore, necessary tools for optimal planning and management of ground water resources will be introduced as an urgent necessity. Accordingly, existing rules and regulations that are affecting the ground water utilization will be reviewed for necessary amendments while new management measures will be introduced to prevent over-exploitation and pollution of groundwater.

Promotion of harvesting and utilization of rainwater. At the micro level, a number of rain water harvesting solutions have appeared recently. State as well as non-government organizations have taken steps to promote such systems for the benefit of the poor masses in areas with limited access to safe water. These efforts will be further strengthened by providing encouragement and incentives through suitable schemes. Further, support will be provided for community-based organizations which come forward to implement such projects through community participation.

Protection of biodiversity - forestry & wildlife, wetlands, coastal & marine biodiversity, agricultural biodiversity

Declaration of new protected areas and sustainable management. New protected areas will be identified and declared to provide protection for wildlife habitats, critical watersheds, flood retention and detention areas, continuity of special ecological functions (breeding & life cycles) etc. This will be undertaken through a carefully planned, objective, transparent criterion with full consultation of all stakeholders involved. Further, all protected areas will be brought under systematic management according to the modern scientific principles of protected area management. Accordingly, measures will be taken for classification by purpose, internal zoning, preparation of management plans, undertaking stock and biodiversity assessments, monitoring and for establishment of suitable modules of community participation. Management plans will be developed for all protected areas taking specific conditions found in respective sites.

Participatory management of peripheral areas for prevention of encroachment, poaching and for minimization of human-wildlife conflicts. Periphery of protected area network has often been entwined with numerous human-resource conflicts. Certain human-wildlife conflicts (e.g., human-elephant conflict) have extended far beyond forest boundaries into more interior areas of human habitation. These conflicts are responsible for serious welfare losses to local communities while creating threats to achieve conservation goals too. Therefore, special attention will be directed to minimize conflicts in peripheral areas. Further, conflict resolution mechanisms will be made with built-in devices of all protected area management plans. In addition, social protection and compensation schemes will be introduced to address grievances of affected parties. In areas with constant human-conflict history, necessary corrective measures such as establishing electric fences, jungle corridors or offering compensated migration with alternative income sources will be implemented.

Strict enforcement against illegal harvesting of forest and wildlife resources for commercial purposes. Despite numerous rules and regulations against abuse of biological resources for commercial purposes,

increasing evidence has recently surfaced on smuggling of local bio-diversity resources, bio-piracy, illegal importation and exportation of prohibited species and biological materials, violation of quarantine procedures etc. Therefore, enforcement has to be strengthened by updating existing laws and regulations, introducing modern methods of detection and investigation, providing authorities with necessary facilities and manpower skills and by revising current procedures to eliminate inefficiencies. A regular criticism is that complexity of existing regulations and procedures while discouraging genuine operators provide numerous loopholes for bogus players to take advantage of. Therefore, simplification of procedures and consolidation of them under a one-stop-shop mechanism will be introduced to help both legitimate operators as well as the authorities in easy detection and monitoring of violators. There are a number of agencies that share the responsibility of enforcement and monitoring of rules and regulations that affect different aspects of biodiversity conservation in Sri Lanka. In many occasions, there is no proper coordination among these agencies as well as with other legal enforcement bodies such as the judiciary and the police. To overcome this situation necessary capacity building measures to strengthen individual agencies such as enhanced physical facilities, modern scientific approaches, trained manpower, information management systems as well as effective networking between relevant agencies will be introduced.

Sustainable management of wetlands. Wetlands are now recognized as indispensable ecological assets. During the last few decades, however, wetlands in the country have largely been destroyed without giving due recognition for their environmental services. Both coastal and inland wetlands have faced severe threat of degradation due to land reclamation, disposal of waste, discharge of industrial and domestic effluents, over-exploitation for commercial purposes and due to unplanned up-stream developments. Hence, sustainable management of wetlands will be given due priority by taking necessary steps for identification of important wetlands, declaration of them as critical habitats, designing suitable conservation strategies, preparation of management plans and bringing them under sustainable management with community participation. Programmes will be initiated for restoration of important degraded wetland eco-systems. Regulations will be introduced to prevent degradation of wetland systems covering not only the public property but wetlands coming under private ownership too.

Protection of coastal and marine biodiversity. Coastal and marine eco-systems have faced increasing threat due to rapid economic growth experienced in the coastal belt. Among the major causes responsible for this situation are coral and sand mining, encroachments of mangroves, haphazard development of tourism industry facilities, unplanned construction of coastal infrastructure, spread of enterprises such as shrimp farming in an uncontrolled manner and increased coastal and marine pollution from all types coastal enterprises. Therefore, urgent actions necessary for overcoming these disturbances will be undertaken as a priority. Accordingly, enforcement of law and monitoring/regulation of undesirable effects will be strengthened by building necessary capacity in relevant agencies. As the responsibility for coastal/marine area management lies with a number of agencies, a strong mechanism for coordination among such agencies will be established. A participatory approach will be adopted in all management efforts and actions necessary to strengthen local authorities also will be undertaken. Critical coastal/marine habitats will be identified and declared under protected area network as Special Area Management (SAM) zones or coastal/marine parks.

National inventory of endangered and threatened species. Conservation of species is one of the most important aspects of bio-diversity protection and endangered and threatened categories are the most vulnerable for extinction. Even though Sri Lanka has a significant share of endemic species of which some are identified as threatened species too, the country has yet to prepare a National Inventory of Endangered and Threatened Species, an important guide for all types of species conservation efforts, based on a proper scientific assessment. Therefore, a program will be initiated to prepare a national inventory with the assistance of experts on relevant areas of the subject through collection and compiling of essential data.

Conservation of germplasm. The country has already initiated germplasm conservation of agriculturally useful species and this effort will be extended to cover all types of bio-diversity resources. Accordingly, repositories of genetic materials of endemic species, microbial genera, endangered/threatened species etc. will be established. Conserved germplasm will be maintained through ex-situ conservation, captive breeding and propagation and by application of bio-technological means.

Prevention and control of environmental pollution - air, water and waste pollution

Water Pollution

Relocation of environmentally polluting industries from urban centres to dedicated areas. In urban and suburban residential areas, the water pollution is mostly a result of untreated discharge of industrial effluents, poor drainage and sewage disposal structures, haphazard dumping of garbage and irregular domestic sewage disposal. Of all sources of pollutants, industrial effluents from high polluting industries could be the most hazardous for human life as well as eco-systems. Even though environmental standards are now in place for approval of new projects, there are many existing high polluting industries such as tanneries, chemical plants etc. which are contributing to the water pollution significantly. As the best strategy for overcoming the damage from such sources, steps will be taken to relocate high polluting industries into dedicated zones, which are located away from densely populated areas and critical eco-systems and provided with common effluent and waste water treatment plants, environmental quality testing facilities etc.

Adoption of market-based instruments (MBI) for environmentally polluting industries. The present legal framework for prevention and minimizing of pollution is mainly command and control biased. The main weaknesses of regulatory approaches are high administration cost and enforcement failures. Further, excessively restricting environmental laws can make Sri Lanka an unattractive destination for investors in the global competition for foreign investments. Some countries have resorted to MBI for pollution control such as licensing, quota systems, pollution certificates, tradable permits, taxes and various incentive schemes and reaped successful results too. Potential for introducing MBI for controlling pollution in Sri Lanka will be assessed and action will be taken to implement them in suitable industries. Necessary institutional mechanisms and legal support will be provided for them.

Strengthening measures for preventing water pollution due to untreated wastewater, garbage and sewerage from multiple micro level sources. Other than large scale effluents from industrial sources, in urban and suburban areas, water courses are largely polluted due to micro level sources such as domestic waste

water, sewerage, small industries as well as haphazard dumping of garbage. In rural areas, fertilizer and agro-chemicals used in agriculture are major water polluting factors. Despite the small scale nature of sources, they are numerous in number and therefore are capable of overall outcomes comparable with large-scale sources. Therefore, special attention will be directed to overcome this problem through a multi-faceted approach that incorporates educational and participatory measures also with regulatory measures. Therefore, steps will be taken to encourage and mobilize local CBOs and NGOs to develop own local solutions with the backing of state and local authorities.

Air Pollution

Promote cleaner production technologies. Air pollution has gradually increased during the recent period due to rising industrial activities and growing number of vehicles, especially in urban areas. The government, as an accepted principle will promote clean production technologies for all possible industrial sectors. This has already been declared as a policy strategy and in the future, necessary legislative support will also be provided through introducing suitable laws and regulations. Accordingly, appropriate standards, procedures, protocols etc. will be developed to achieve this goal. The government will provide encouragement for adopting Clean Development Mechanism (CDM) to industrialists under various industrial development programmes through incentive schemes.

Adoption of measures to controlling of vehicle emissions. In Sri Lanka, a major source of air pollution is transportation. The number of vehicles on roads have increased rapidly during the last few decades and the influx is continuing. Emission standards will be introduced together with other suitable standards and regulations applying to transportation from importation of vehicles to removal of non-roadworthy vehicles. As the more difficult part is implementation, necessary facilities, technical capacity and manpower skills will be provided to the enforcing authorities.

Establishment of air quality monitoring facilities in strategic locations. Controlling air pollution needs regular monitoring. Sri Lanka has limited air quality monitoring facilities in the Colombo city, which is not sufficient for the effective implementation of an air pollution control programme. Therefore, air quality monitoring facilities will be established in strategic locations in cities and major towns to gather information on air quality and to keep track on changes due to increasing pollution. Information collected from these units will be analyzed regularly and practical management strategies for controlling air pollution will be drawn accordingly.

Solid Waste

Improving institutional capacity of local authorities in proper management of solid waste. The problem of solid waste has become a major environmental issue in many urban areas and is gradually spreading into rural areas as well. Under the present institutional arrangements it is mainly a responsibility of local authorities in respective areas. Their inability to handle the problem in an effective manner worsens the situation further. If correctly approached, many local authorities have the potential to convert local municipal waste for substantial sources of income while helping to reduce expenditure on public health issues too. As a measure to improve this situation a programme will be initiated to strengthen the

institutional capacity of local authorities for proper management of solid waste. Accordingly, the government will provide necessary technical support for local authorities to develop local solid waste management plans with the support of community and local entrepreneurs.

Promotion of reuse, recycling and composting of municipal solid waste. Not only have the accumulation of waste at the source due to poor collection but also improper disposal of collected waste by open dumping, become serious problems. As a measure to overcome this situation, an integrated waste management approach will be adopted, beginning from household level by minimizing waste through re-using/recycling/processing of waste for recycled products and compost to leaving of only a minimum volume for incineration or safe dumping. Recycled products and use of waste materials in industry will be encouraged through suitable incentive schemes. The government will assume a facilitative role rather than a regulatory role with the aim of creating a market for waste based materials and waste processing.

Safe disposal of clinical and toxic solid waste. Certain amount of clinical and toxic waste also is produced by hospitals and industrial establishments. Disposal of these waste needs special precautions and should be done with utmost care. This is one of the areas which attracted minimum attention and clinical and toxic wastes are quite often disposed through unsafe methods without taking any precautions. Necessary measures to overcome this situation will be instituted by introducing a necessary regulatory framework, introducing standards and guidelines for safe disposal, identification of sources and types of waste, providing training on safe disposal and increasing public awareness on potential hazards.

Increasing public awareness on solid waste management. Despite all technical, regulatory and institutional measures, the solid waste problem cannot be solved without public support. Unless there is a conscious and responsible effort from the side of the public, any measures taken to overcome the problem cannot be expected to yield the desired results. Therefore, increasing public awareness and education on solid waste management is an essential prerequisite for the success for any kind of solution. To achieve this, both formal and mass education means will be utilized. In this connection, priority and encouragement will be given to numerous civil society groups that include NGOs and CBOs to make their contributions through creative and innovative ways.

9.2.3 Mitigation of natural hazards and disaster management

Strengthening the institutional capacity for disaster management. Disaster management agencies are relatively new to Sri Lanka and the institutional set-up is still evolving. The existing institutional situation is not well organized and coordination between even national level government agencies is poor. Besides, there are a large number of NGOs and CBOs that make a useful contribution in various ways. Therefore, necessary measures to strengthen organizational and coordinating aspects of disaster management will be undertaken as a priority. These include actions to : (a) organize and increase the coordination between national level agencies, (b) improve the coordination among national and regional level agencies and local authorities and, (c) establish a mechanism to coordinate activities of the state agencies and civil society organizations.

Establishment of a scientific disaster management system. Disaster management in Sri Lanka is still mostly a process of providing post-disaster relief. However, modern disaster management emphasizes pre-disaster risk reduction through proper planning, enhanced preparedness and mitigation measures. Therefore, significant improvements are necessary to convert the disaster management system in Sri Lanka to a modern system.

- Pre-disaster planning and monitoring: Assess the hazard risk and vulnerability, identify suitable prevention and mitigation measures, recognize disaster prone areas, zoning and preparation of hazard maps, regular monitoring of hazards
- Prevention, mitigation and disaster preparedness: Initiate prevention and mitigation measures against identified hazards, reduce the public vulnerability, establish early warning systems, increase the preparedness for facing disasters.
- Post-disaster recovery: Strengthen formal recovery measures such as insurance
- Adaptation: Initiate adaptation measures for long-term hazards such as global climate change
- Increasing Public Awareness and Education: Conduct public awareness, educate the public, support of civil society organizations

Promotion of disaster tolerant infrastructure in risk prone areas to minimize the damage to human life and property. An important component of these losses is damage to infrastructure. Certain countries have developed disaster tolerant infrastructure facilities for reducing economic losses. Therefore, necessary measures to introduce and promote disaster tolerant infrastructure facilities will be initiated. The government will also encourage such efforts by non-state actors such as private sector and NGOs.

9.2.4 Overcoming the threat of global environmental problems

Enhance the capacity for meeting the obligations under international agreements. Sri Lanka is a signatory to many agreements and conventions initiated for cooperation against various global environmental issues and they carry certain obligations to be fulfilled for prevention and mitigation of global threats. Meeting the obligations of several agreements for which Sri Lanka is a signatory is a demanding task. Currently, there is a special division established within the Ministry of Environment and Natural Resources to undertake coordinating activities. Significant capacity building effort in terms of physical facilities, technical skills and human resources is essential to meet the national obligations. The government will seek the assistance of the international community to enhance our capacity in this regard for fulfilling our responsibilities in a successful manner.

Facing the challenge of global climate change. Of all the global environmental issues, impending changes of global climate due to green house effect is the one with most serious repercussions. Sri Lanka being an island located in the tropical belt can be considered as highly vulnerable to impacts of climate change. As a country with negligible contribution to the warming through its green house gas (GHG) emissions, Sri Lanka can only do little to mitigate the disaster. However, the country is certain to face its consequences and therefore the daunting challenge of adapting to its impacts lies ahead.

- Assessing potential impacts through review of scientific information: In line with the role played by Intergovernmental Panel of Climate Change (IPCC) in the global scene, a Multi-disciplinary Expert Panel on Climate Change will be appointed to review the results of locally conducted research as well as to derive potential implications from global models regarding impacts on Sri Lanka (downscaling). They will submit periodical assessments with recommendations to a Committee on Climate Change Policy appointed for the decision making on climate change.
- Initiating actions for adaptation and implementation: The Committee on Climate Change Policy will recommend its policy actions to the President, the Cabinet and the Parliament based on the scientific assessments provided by the expert panel for implementation.
- Monitoring of implementation: Upon the granting of approval, the responsibility for implementation of proposed actions will go to relevant line ministries and agencies, which look after the subjects/sectors concerned. Committee on Climate Change Policy with the assistance of a multi-disciplinary expert panel will also monitor the progress.

10. Macroeconomic Environment

10.1 Overall Policy Framework of the Ten Year Plan: An Overview

The TYP has identified several factors as vital for promoting economic growth in Sri Lanka - including regional development - such as peace, liberal economic regime, capacity expansion in all the sectors by promoting investment, human resource development, infrastructure development and technology and research development. The main focus of the strategies related to enhancing export earnings, including through the promotion of inward remittances, and achieving a broad framework for macroeconomic stability.

The priority theme of the proposed trade and investment policy in the TYP is to achieve and strengthen export growth while promoting both exports and efficient import substitution as broad policy objectives. The strategies outlined in the TYP recommend market penetration through preferential market access while it also suggests devising a mechanism to capture available opportunities under the GSP-plus scheme. The plan envisages strengthening the existing regional integration arrangements (RIAs) while encouraging negotiations for new RTAs with advanced economies.

Export diversification with the emphasis on the SME sector, infrastructure development and policy-support based backward integration for high value added exports have been given high priority under the TYP. In addition, trade in services is to be promoted with higher domestic value addition. Upgrading competitiveness and trade regulatory environment is also among the policy guidelines for the next decade. In the long run, trade policy of the TYP is aimed at developing a hub status for Sri Lanka by setting up of a "Colombo-centred South Asian Economic Hub" with a focus on free port and entrepot trading, financial environment and sea port facilities.

The medium term macroeconomic framework forecasts a gradual reduction of the fiscal deficit to 5 per cent of GDP by 2010 on the back of increased revenue collection and decline in total expenditure. The total public debt is anticipated to decline to 77 per cent of GDP (from 94 per cent) assisted by a reduction in external debt to 36 per cent of GDP (from 48 per cent). Domestic borrowing is forecast to decline to below 3 per cent of GDP. The medium term macroeconomic framework foresees a reduction in the rate of inflation to 4.0-4.5 per cent by 2010.

The fiscal policy is aimed at bringing out a surplus through an expanded tax base, higher non-tax revenue, cost effective expenditure management system with a prudential debt policy, large public investments through concessionary foreign sources, long term funding services and phasing out budgetary transfers to state enterprises. In addition, monetary and financial policy is to focus on avoiding demand-pull inflation, ensuring credit growth and strengthening financial sector stability and its regulatory framework. Furthermore, the TYP has outlined intentions to further liberalize existing policies to enhance capital market development. As outlined in the proposed TYP, the policies to strengthen the country's economic structure comprise of market development strategies, infrastructure development strategies, public services development strategies and administrative service development strategies.

10.2 Assessment of the Proposed Strategies and Policy Options in Export Expansion

The TYP identifies a number of strategies that could be implemented to achieve a higher export growth rate, some of which have been highlighted and expanded in the section below together with other suggestions which could be considered. Most of the strategies identified have been drawn up considering the needs of the export sector. Expanding exports require both an increase in external demand for Sri Lankan made goods and services as well as an increase in the ability to meet this demand. This section will mostly focus on the latter.

10.2.1 Strategies to improve domestic capacity for export expansion

Strengthen existing trade arrangements to ensure market access abroad. Over the years Sri Lanka has entered into a number trade agreements (bilateral/regional) and has negotiated and exchanged tariff concessions to obtain better market access for its produce abroad whilst participating in multilateral negotiations.

Whilst the purpose of entering into trade agreements was to provide greater access abroad for Sri Lankan exports, most of the agreements seem to have fallen short of expectations. Several reasons could be attributed to this, including low product coverage due to exclusion of exports of interests to Sri Lanka through extensive negative/sensitive lists, low levels of preference margins, weak domestic supply capacities, strict and high rules of origin criteria, existence of non-tariff barriers such as quotas, and para-tariffs, etc. In light of the problems faced in utilizing these agreements, there is a need to strengthen these arrangements to address the shortcomings that have been encountered in their implementation. These include further consultations and negotiations to increase the market access for Sri Lankan products by trimming the number of products under negative/sensitive lists (SAFTA, ILFTA, PSFTA), reducing the rules of origin

criteria to reflect the production capacity of the country (GSP scheme), accelerating the liberalization process (SAFTA), identifying and eliminating of non-tariffs barriers and para-tariffs etc. There is also the need to strengthen the capacity of exporters to better exploit the opportunities available under these agreements by properly evaluating the agreements to identify potential products which can be exported on preferential basis and creating awareness amongst exporters of untapped opportunities.

Box 10.1
RTAs of Sri Lanka

Sri Lanka is a party to the Asia Pacific Trade Agreement (previously the Bangkok Agreement), Global System of Trade Preferences, South Asia Preferential Trade Agreement, Indo-Lanka Free Trade Agreement, and Pakistan-Sri Lanka Free Trade Agreement. Following the success of the Indo-Lanka Free Trade Agreement (ILFTA), Sri Lanka and India are in the process of converting the FTA into a comprehensive economic partnership agreement (CEPA) covering trade in services and investment, whilst the South Asia Free Trade Agreement (SAFTA) replaced SAPTA which has been in place since 1995 and BIMSTEC is slated to form a free trade area soon. Sri Lanka has also engaged in the recent past of negotiating an FTA with the US, Singapore and Egypt to name a few, each at different stages of trade negotiations. The Indian Ocean Rim Association for Regional Cooperation (IOR-ARC), which Sri Lanka is a participating member, is also studying the feasibility of a preferential trade agreement amongst the member countries. While the above agreements have been reciprocal in nature, Sri Lanka has also been a beneficiary of non-reciprocal trade agreements such as the Generalised System of Preferences (GSP), which has been providing preferences to exports from developing countries for over three decades.

Improve domestic supply capacity. Obtaining market access alone is not sufficient to ensure export expansion if the domestic supply constraints remain unaddressed. Inability to make use of preferences extended to Sri Lanka also indicates the need to build supply side capacities to trade, an issue which has gained increasing recognition and attention in policy circles. For example, Sri Lanka has not been able to make most out of the trade arrangements and meet the rules of origin criteria due to lack of backward linkages in the economy. Therefore, it is important that improved market access through strengthening of existing trade arrangements should be accompanied by domestic measures undertaken in the country to facilitate the expansion of trade.

There is also the need to not only strengthen existing agreements but also deepen them. In this regard, the movement of the ILFTA beyond trade in goods to include services and investment is a welcome development. Whilst there are benefits from liberalizing Sri Lanka's service sector with reciprocal commitments by India, there are also concerns that need to be addressed. The key issues that need to be addressed include the regulatory capacity of professional bodies and other institutions. Many professional bodies do not have the capacity or parliamentary authority (Sri Lanka Medical Council is one body that has parliamentary authority) to regulate the activities of its practitioners. The government needs to take the lead in urging professional bodies to create or improve upon the regulatory mechanisms that would be required under the CEPA. For mutual benefits through liberalisation there is also a need for Mutual Recognition Agreements (MRAs) to be signed between regulatory bodies in the two countries. So far, this has been a slow process,

and there needs to be a push for this to be expedited. Without proper data in services, it is very difficult to predict the potential impacts of liberalisation, and it would be near impossible to make effective commitments under CEPA. The Department of Statistics needs to place more emphasis in this regard. It is also important to ensure consistency in negotiating teams. Services liberalisation negotiations are a complex process and require a great deal of capacity. The Department of Commerce often sees cadres being posted abroad in the middle of negotiating processes (CEPA with India is an example of this). This undermines continuity and the quality of the negotiating strength of Sri Lanka. For instance, those who work on the CEPA with India need to continue in this role when dealing with other such agreements such as the possible CEPA with Pakistan. It is also important for the private sector to be more knowledgeable about trade agreements such as CEPA. It is essential that trade negotiators deal with domestic stakeholders in an intensive manner in the lead up to negotiating processes. The respective Chambers of Commerce should continue to play a liaising role between the two.

Be selective in negotiating trade agreements. While the Ten Year Plan states the need to negotiate new RTAs with advanced economies and emerging economies, it is also important to bear in mind that the process of negotiating and signing of RTAs has become increasingly complex as these agreements have become deeper and broader in scope. A single agreement absorbs a great deal of resources, both physical and human, over the years taken to complete it. Given this consideration, and the already stretched capacity of the Department of Commerce, it is essential that the pursuit of new RTAs is limited only to those where proven long term economic benefits are abundantly clear. In deciding whether to pursue RTAs it is advisable to first enter into consultations with major local exporters and other domestic business. It is after all the private sector which would benefit from a trade agreement, and it is logical to understand their interest first. Longer term economic interests can then be gathered by discussions with economists/academic experts and undertaking research to examine potential dynamic benefits from such RTAs. If the benefits identified in these stakeholder discussions are shown to override the costs inherent in negotiating a trade agreement, it would be worthwhile pursuing such an agreement. The problem with entering into a large number of agreements is that it would water down the quality, and result in delays in the more meaningful agreements. It would be advisable to concentrate on and complete existing negotiations prior to embarking on any new agreements. In terms of RTAs, quality is far more important than quantity.

Longer-term strategy to implement FTAs should be clear. It is advisable to first iron out present agreements including the Indo-Lanka CEPA, BIMST-EC, APTA and the potential Sri Lanka-Pakistan CEPA. There are many issues that need to be addressed in these agreements. For instance, the potential impacts of services liberalisation in BIMST-EC and the IL-CEPA, the areas of export interest to China via APTA, the complexities in the services negotiations in the IL-CEPA (e.g., denial of benefits) and understanding exactly the long term impacts of the agreement. If the DoC can focus on these before entering new agreements, Sri Lanka would benefit from having a few agreements which are well tuned to the national interest, instead of a multitude of haphazard agreements with little real economic benefit. When considering new agreements in the medium run, it is important to take into account a number of factors. Transaction costs between the two trading partners are a major hindrance to the success of an agreement. Countries with a record of

high non-tariff barriers, weak trade related infrastructure, high transport costs and stringent bureaucratic regulations are unlikely to result in great benefit since tariff liberalization alone is unlikely to yield results and generate trade. When signing new agreements it also important to learn from experiences in past agreements. For instance, the Indo-Lanka FTA has suffered due to non-tariff barriers, and the extent of investment that was expected following the agreement has not materialized. Much of the investment has been in low value added industries with little technology transfer and gainful employment creation i.e., copper.

Lack of diversification of exports and markets remains a cause of concern. As a small island economy, Sri Lanka remains highly dependent on international trade, with trade in goods and services accounting for over 70 per cent of the GDP of the country, indicating a relatively high openness of the economy compared to countries in the South Asian region. Despite the progress made towards opening up of the economy and government's attempts to foster diversification of the export base, Sri Lanka's exports have remained concentrated in few sectors, with garments alone accounting for a substantial share of total exports. The problem of product concentration has been compounded by market concentration, with the US and EU together accounting for 60 per cent of total exports of Sri Lanka. Consequently, Sri Lanka remains highly vulnerable to external developments largely due to high concentration in few products and markets.

Signing of bilateral and regional FTAs has helped to reduce this dependence, for example with the emergence of India as the third largest trading partner after the US and the EU and emergence of export products other than garments. But these will continue to remain important markets and exports for Sri Lanka for the foreseeable future. Given the important role that the garment industry plays in the economy in terms of generation of foreign exchange revenues and provision of employment, it is important to ensure that this sector continues to grow, as diversification is only possible in the context of growing exports. Contrary to expectation, the industry weathered the MFA phase-out in 2005 but it is likely to face a tougher international trading environment, with the removal of safeguard measures imposed by the US and EU. Therefore, it is necessary that the government continues to support this sector (as well as other sectors of the economy) by improving the business working environment of the country as well as continuing to extend incentives offered to exporters.

Trade in services has been a much neglected area but increased exports through this sector could benefit the country in terms of higher export earnings and diversification of exports. In the year 2005, out of a total trade of US\$ 7.9bn, only US\$1.5bn was contributed by trade in services. Sri Lanka continues to rely on traditional services exports such as transport and tourism which made up more than two-thirds of service exports in 2005. It is however encouraging to note that the computer and information services sector, which includes Business Process Outsourcing (BPO) is an expanding sector. It has grown in the last 3 successive years to reach US\$ 98mn worth of exports, up by 19 per cent recorded in the previous year.³⁵ However, telecommunications infrastructure remains a constraint - leased lines are expensive and

³⁵ CBSL *Annual Report (2006)*.

do not penetrate into geographic areas beyond the urbanized Western Province. English language education and training is another area which can be improved in order to expand the scope of the BPO sector. Improved quality of English language education in schools must be considered a highest priority. As a more short term measure, it would be useful to encourage English training centres and ensure some mechanisms of quality assurance and regulation. Specific areas where Sri Lanka can benefit include accountancy, hospital services (laboratory testing etc.), architectural services and computer and related services. It is important to highlight international success stories in BPO in countries similar to Sri Lanka to increase awareness on how opportunities in this sector have been made by firms in countries like Vietnam. Furthermore, there have been stories of mini-BPO sector initiatives even in rural Sri Lanka. Giving such instances more publicity will be a spur for other firms to follow suit. The Sri Lankan diaspora living in developed nations could be encouraged to promote the usage of Sri Lankan outsourcing firms in their own business endeavours and others known to them. Sri Lanka is already late to join the BPO bandwagon, with countries like Bangladesh having already expanded this sector by subcontracting and sharing with India's massive BPO sector. Sri Lanka could do the same, and it is important that the private sector is alerted to the possibilities that would arise particularly in the wake of the CEPA coming into force.

The Board of Investment as the promoter of foreign investments to the country should continue to attract investments that will intensify the use of local resources and factors of production for export purposes, investments which would lead to efficiency improvements and facilitate technology transfer, and investments seeking foreign markets access through preferential agreements such as the ISFTA and PSFTA.

Despite maintaining a relative liberal FDI regime, inflows of FDI to Sri Lanka has been low (around 1 per cent of GDP on an annual basis) and Sri Lanka has never been able to make most of its full potential as a destination for foreign investments. While the country received the highest-ever FDI inflows in 2006, with a total inflow of USD 604mn, surpassing the previous level record in 1997, most of it was re-investments by existing firms operating in the country. The failure to attract FDI at levels seen in East Asia has been mainly attributed to the civil conflict in the country. Until recently FDI into the country has gone into the manufacturing sector, mostly in the textiles and garments related sector. However, lately FDI flows have gone into the services sector i.e., telecommunications. FDI into Sri Lanka has come from a few countries, with Singapore being the largest foreign investor in the country followed by UK, Japan, Korea, Hong Kong and Australia while India and Malaysia have emerged as significant investors recently. The signing of the ILFTA was expected to bring in foreign investment to Sri Lanka with a view to export to the Indian market but the inflow of investments has been so far below what was expected with most of investments limited to low value addition industries with little technology transfer and lack of backward linkages including gainful local employment. Therefore, in attracting FDI into the country it is necessary to ensure that Sri Lanka attracts the 'right' type of investments and also ensure that the approval process is expedited - action in this regard seems to have already been taken.

So far, a lot of attention has been given to attracting foreign direct investment to increase the export capacity and competitiveness of the country, but policy makers should also look into in-country options such as building business alliances among local firms, particularly SMEs. Competition amongst developing

countries for foreign direct investment is likely to intensify further and the chances of success in attracting investments are slim for many countries including Sri Lanka. While the country should work towards ensuring and maintaining a competitive investment regime, the decision to invest finally rests with the foreign investor. The situation is different when it comes to developing export capacity and value addition by promoting in-country partnerships, as it is a matter of working with SMEs and as such the chances of success are greater. Alliances between SMEs, between large and small firms not only help increase export capacity and improve export competitiveness but also address developmental considerations such as rural development, poverty alleviation and geographic diversification of productive capacity.

SMEs should be encouraged to supply large exporters as a means of overcoming problems faced by them in accessing markets abroad such as inadequate export quantities, poor quality of products and inadequate funds for international marketing purposes. The experience of many countries in East Asia indicate that sub-contracting is an effective means of gaining a competitive edge in the world market. However, sub-contracting or use of large exporters is uncommon in Sri Lanka and existing sub-contracting is done on a limited scale and in an ad hoc manner in a few sectors. Bringing together SMEs and large exporters to cooperate amongst themselves would enable them to achieve higher export targets. The EDB could facilitate this linkage by matching small and medium scale producers with large exporters. Export production villages (EPV) represent such a strategy in creating new export capacity. Pioneered in Sri Lanka in 1980s, the model has been successfully replicated in other developing countries. The main objectives were to: effectively use rural raw materials and human skills for export purposes and eliminate middle-men, thereby increasing the returns to the producer. Under this strategy, rural producers are supported through technical assistance from the EDB to form EPV Peoples Companies (EPCs). Each producer is a shareholder in the company. The objectives are to promote export production and give collective strength to individual producer. The EDB has facilitated the formal linkage of the EPC to a suitable exporting company, which markets the product and completes the transaction. EDB acts as intermediary, ensuring fair trade and mutual benefit for the EPV and the exporter, providing advice and supporting services to both parties. As a step in the right direction, the government intends to set up more EPVs to promote exports as well as assist rural development.

Access to reliable and timely information should be improved to all stakeholders. In the current competitive environment, access to information is important and many enterprises in Sri Lanka, especially SMEs lack access to accurate, quality and specific information related to production and exports. Lack of infrastructure to obtain such information has compounded the situation. Although the Chambers and different associations provide trade information and have developed network arrangements in providing such services to rural areas they remain dependent on the government for sources of information. Though the EDB has done a commendable job in terms of collection and dissemination of trade related information, there is room for much improvement in terms of delivery of reliable and timely information to exporters, including the SME sector. There is also an urgent need for comprehensive and up to date trade information covering a wide range of subjects from local customs procedures and documentation to trade agreements and preferential rates, which is capable of meeting exporters' requirements. Since the international market

is dynamic and conditions are ever changing, research should be conducted frequently with the help of Sri Lankan missions abroad and the information should be channelled to reach the intended recipients.

EDB should be strengthened to carry out its mandate more effectively and given the necessary authority to serve as 'one-stop shop' for exporters' needs. Currently, exporters encounter administrative regulations and cumbersome procedures at several points before a consignment can be exported (or imported). The situation has become worse due to the fact that many of the ministries and institutions in Sri Lanka are scattered in a large area in Colombo and suburbs, contributing to considerable amount of frustration, delays and additional costs. Given that the production cost of the country is comparatively higher than its competitors, these additional costs make exports even less competitive. Therefore, there is a need for simplification and rationalisation of trade documentation and administrative procedures in addition to providing all the services under one roof. Since the EDB is the main trade promotion authority in the country, it stands out as the most appropriate institute for this role. However, necessary action should be taken to enhance the efficiency and effectiveness of its service delivery prior to equipping it with such authority. Currently, about two-thirds of funds allocated to the EDB are absorbed by its administrative costs leaving the remaining one-third for export promotion purposes!

There needs to be better coordination amongst the institutions supporting trade. At present a large number of public and private sector institutions, non-governmental organizations and foreign donor agencies are involved in providing support services to exporters. The public sector institutions offer a wide range of services from policy formulation, planning, regulatory and promotional activities while the private sector institutions mainly provide business support services. Although these organizations are presently functioning under severe constraints (both financial and non-financial), certain improvements can be made such as enhancing the coordination amongst these institutions and thereby reducing the duplication of functions with a view to providing effective support to exporters. For example, public and private partnership is important for creating an effective mechanism for information gathering and dissemination. Currently, there are a number of public and private organizations involved in this task but these efforts could be better coordinated for the benefit of exporters by a trade promotion agency such as the EDB. The EDB can play a key role in this regard through such arrangements as the Exporters Forum. The EDB Act provides for such a mechanism in the promotion of goods and services for export.

With increasingly liberal trade regimes and the emergence of China and India in world markets, it is becoming clear that Sri Lanka will struggle to compete in exports on price terms. In this context, it is important that attention is paid to qualitative competition, ensuring the highest standards and maintaining transparency, marketing, product diversification and moving up value chains through greater value addition and branding. One important step in this regard would be to improve standards testing capabilities in the country as well as ensure that local standards are recognized internationally. In order to maintain standards of exports and to provide transparency in this regard for buyers, it is important to have quality standards testing infrastructure. At present, local standards are not recognized internationally in many occasions and the capacity of domestic institutions are inadequate - up to 40 per cent of testing is done outside Sri Lanka in India. If the state could invest in testing facilities which could be used by all exporters, it would

greatly help cost effectiveness. It is encouraging to note that 4 new research units are being established in Sri Lanka with assistance from UNIDO to issue necessary certificates on standards. Moving in this direction could help Sri Lanka move up the value chain in even agricultural exports by moving into sectors such as organic produce, which require extensive standards testing and expensive certification requirements. In the past, support has been given to such endeavours. An example of this was the support given by the Tea Association of Sri Lanka to tea exporters to obtain HACCP certification, with funding from an international donor. It is important that any such support is phased out after the initial period of assistance and once the firm has a foot in the market.

It would also be worthwhile pursuing GI protection (geographical indicator) for certain Sri Lankan products such as Ceylon Cinnamon, and Ceylon Sapphires.³⁶ GI protection will allow a quality stamp to be associated with these products which can not be reproduced by similar products of different geographic origin. The benefit of this would be to allow increased prices based on higher quality reputations associated with the product. Other products with unique geographic associations with quality include Persian carpets, Chinese silk, and sparkling wine from Champagne. A carpet guaranteed to be from Persia can sell for a higher price than an ordinary carpet. Ideally, a similar position can be reached for Ceylon Sapphire, Cinnamon and Tea. There could be potential benefits for rural development as well through such an endeavour, particularly if cinnamon can be marketed in such a manner allowing higher prices to be achieved. GI protection would however need to be supplemented by aggressive promotion and marketing of the products.

Sri Lanka's research and development capacity is low and the research that has been carried out does not meet the needs of the private sector. In most cases exporters are not aware of new technologies available or even if they are, they do not have access to it and there is usually a time lag to get the new technology. A major cause of this weakness is lack of linkages between the private sector and research institutes/universities. While there are a number of research institutions in Sri Lanka such as the Sri Lanka Standard Institution and Industrial Technology Institute (ITI) which have done commendable work, they need to be further strengthened, possibly by tying up with other foreign research institutes and carry out demand driven research. In addition, exporters see much potential for research institutes and universities to engage in human resource development to cater to requirements of the export sector.

The government should seek to further reduce the tariff levels and rationalize the number of tariff bands with the intention of moving to a three band structure for raw material, intermediate and finished goods in the long term in order to improve the transparency and predictability of the tariff regime, which would help the expansion of trade. While Sri Lanka has made considerable progress towards rationalizing its tariff structure and lowering its tariff rates (the current average tariff has come down to 4.2 per cent in 2006 down from 4.3 per cent recorded in 2005),³⁷ there are a number of distortions in the current tariff regime which are in place largely due to revenue reasons. Currently, import tariffs comprise of five bands

³⁶ See Yatawara and Rajapakse (2006), "Gaining Competitive Advantage through the Protection of Geographical Indications: An Analysis of the Tea, Sapphires and Cinnamon Industries of Sri Lanka", IPS 2006.

³⁷ CBSL *Annual Report (2006)*.

(0, 2.5, 6, 15 and 28 percent), with basic raw materials at the lowest tariff band and intermediate and finished goods on higher bands and a number of exemptions. In addition, there are other charges applicable to imports such as surcharges on customs duty, value added tax (VAT), Port and Airport Development Levy (PAL), Social Responsibility Levy (SRL), Excise Duty (for alcohol, tobacco and vehicles and cess on non-essential consumer items), which have been raised and lowered frequently in the past in an ad hoc manner. Export competitiveness would benefit from the implementation of a more coherent and predictable trade policy.

Not only should the government seek to promote exports of the country but also should try to strike a better balance between consumer and producer interests. More often than not, the interests of consumers are not taken into account adequately in determining the tariffs of the country while pressure from protected producers/other interest groups or revenue reasons tends to play out, hurting consumers of the country.

Although export duties have been phased out in almost all sectors, an export cess is levied on exports of tea and coconuts, which is supposed to be re-invested in these industries for research and development, export promotion and provision of support to small scale producers. While the objectives of a cess fund are laudable and most stakeholders seem to agree that such a fund could be potentially beneficial, it seems to have fallen well short of meeting its objectives and failed to benefit the industries from which they have been collected. Thus, it is necessary to ensure that the monies collected from the cess are channelled to the relevant recipients and it is utilized effectively. This would require a greater say of the exporters from whom the cess is collected on how this can be achieved - after all, the cess is supposed to benefit the industry at the end.

Exporters are entitled for a VAT refund but significant delays of over a year have been reported in refunds causing immense difficulties for exporters. The delay not only affects cash flow and inhibits reinvestment of the money due but also imposes significant costs on exporters as they need to borrow from commercial banks at high interest rates thereby reducing their export competitiveness. The situation needs to be addressed on an urgent basis by the Treasury and the Department of Inland Revenue by reforming the procedure of processing VAT refunds to ensure that it is returned within the time allowed.

High cost of transportation due to poor conditions of roads and rail network is a general problem highlighted by the private sector, including exporters. Though the country has the highest road density in the region, the bulk of the roads are in poor condition. It is encouraging to note that necessary actions have already been taken by the government to enhance the existing road network and to build new highways connecting major cities and economic centres. While rail transportation is considered as a much more cost effective mode of transportation compared to road transportation in terms of both passenger and goods transportation, very little has been made to improve the sector. The existing rail network covers a significant portion of the rural areas of the country and the sector should be given a more prominent place in the infrastructure development agenda. Current condition of the railway sector is at a very low stage and the service remains inefficient and unreliable.

Sri Lanka ranks quite low in the world in terms of its engagement in international trade due to the time and cost of moving goods through the ports and customs. It takes on average 27 days and 13 documents to import goods into the country and 25 days and 8 documents to export goods. These procedures and paper work are not only slow but can be costly due to corruption involved to clear or ship goods. By comparison, it only takes 3 days to import and 6 days for exports to clear Customs in Singapore. In addition, container shipments cost roughly half of what they do in Sri Lanka. To improve the situation to allow for expanded exports (and reduction in corruption in customs), the government must move to reduce the red tape in order to improve the efficiency delivery of services at customs as well as address terminal handling charges, which are the highest in the region, by implementing a mechanism or an independent body to regulate the terminal handling charges, as suggested by exporters. A related issue is the need to fast track the port expansion in Colombo due to shortage of container space for shipment of exports, namely to Europe, as well as to maintain its status as a regional transshipment hub port. Garments are particularly affected as many exporters have to meet tight deadlines and just-in-time delivery schedules and failure to find space on container ships mean that exports are forced to air freight their shipments, which can be more than 75 per cent more than sea freight!

Lack of proper facilities to handle high value and perishable cargo at airports and ports is another problem that has hindered the development of a number of export industries such as shrimps and prawns, fruits and vegetables, fish products and cut flowers. Some of these products need cold storage or warehousing facilities just before loading. These products cater for niche markets in developed countries so that the quality and timeliness of delivery is of utmost importance. Initiatives have been taken to establish a green channel at the airport in the recent past but none have been implemented so far.

Cost of utilities is a major concern in the export sector as well as other industries. High electricity costs by raising business costs have potentially weakened Sri Lanka's external competitiveness. Other than the steps taken by the government at present to improve this situation, the exporters see it as a priority to remove the VAT on electricity that was promised awhile back but is yet to be implemented. Cost of utilities is a concern for industries such as ceramics which are intensive in energy use.

There is also widespread consensus that the labour laws of the country do not reflect the economic realities of the present day and remain rigid and complex. While recent changes in the legislation governing overtime provides some flexibility and accommodative environment, it is necessary to reform the labour laws of the country on an urgent basis to ensure that Sri Lanka is able to respond regularly and swiftly to changes in international market conditions. Currently, Sri Lanka ranks at 98th in the world in terms of ease of employing workers - while it is easy to hire, it is almost impossible to fire a worker, with the cost of firing workers being the fourth highest in the world. While the labour laws are intended to protect workers, in fact they end up hurting rather than helping them, namely by pushing workers into the informal sector and stifling new job creation.³⁸ Therefore, reforming the country's labour laws, namely the Termination of Workers Act of 1971 is called for. Ad hoc government mandated wage allowances are

³⁸ World Bank (2007), "Doing Business in South Asia".

also a particular concern for exporters given that each industry is different and there are variations in production, employment and labour benefits, which are set according to the season. External imposition of allowances not taking into account of these factors by the government distorts and adversely affects production and exports.

Create a better macroeconomic environment conducive for export promotion by maintaining a low budget deficit, tighter inflation control and competitive exchange rate. High budget deficits hurt exports by increasing inflation and raising interest rates. Together these have the effect of leading to appreciation of the (real) exchange rate hurting the competitiveness of Sri Lanka's exports. During 2006 the real effective exchange rate rupee appreciated due to relatively higher domestic inflation compared to those of the other countries, deteriorating the competitiveness of Sri Lanka's exports. Therefore, an efficient management of macroeconomic fundamentals which is much more conducive to the production of exports of goods and services is crucial for improving the competitiveness of the country.

If the government would like to achieve rapid export expansion and diversification, significant reforms must be undertaken to reduce and remove constraints which impede such expansion and diversification. While many of these reforms will benefit all entrepreneurs and business whether they are producing for the domestic or foreign markets, some policy moves are particularly important to exporters. Chief among these are VAT refunds and improving the efficiency and reducing the costs associated with the Customs and ports.

10.2.2 International remittances

Migrant labor remittances into Sri Lanka are significant and rising. In 2005, the formal worker remittances to Sri Lanka amounted to US\$1,918 million. The main sources of remittances were Middle East (56.5 per cent), European Union (18.5 per cent), North America (6.5 per cent), other European countries (6.5 per cent), and Far Eastern countries (4.5 per cent). Table 9.1 indicates official worker remittance figures but does not include the informal remittances which are considered to be as much as 50 per cent of official remittances (Ratha, 2005). The stock of Sri Lankan workers abroad is around one million according to official sources, but at least another half a million workers are estimated to be abroad. The official worker remittances accounted for 8 per cent of the country's GDP in 2005. During the last two decades, worker remittances have grown steadily surpassing major foreign exchange earners such as tea, tourism, garments and textiles. Worker remittances have steadily risen which has helped the country to finance a growing import bill and to reduce the burden of servicing foreign debts. This is significant in the context of FDI inflows approximating 1.3 per cent of GDP on average per annum.

Remittance flows will continue to increase as unskilled workers continue to migrate to the Middle East. For the unskilled worker, temporary migration to the Middle East brings in earnings that are 8 times greater than what could be expected at home. The Sri Lanka Bureau of Foreign Employment (SLBFE) estimates that 49 per cent and 21 per cent of Sri Lankans working overseas in 2003 were housemaids or unskilled labour, respectively (Figure 2). Nearly 70 per cent of Sri Lankan temporary migrants are female, and most work as housemaids. Just over 1 per cent of all migrant workers are classified as skilled.

The worker remittances which are the net savings of Sri Lanka workers abroad are received through several different channels. These include: (i) remittances received through banks which are approved foreign exchange dealers; (ii) funds brought personally when travelling into the country; and (iii) remittances that are received through informal channels. With regard to formal channels, there are 25 financial agencies authorized by the Exchange Control Department (ECD) of the Central Bank of Sri Lanka to engage in foreign exchange transactions. In line with the Banking Act, all 22 licensed commercial banks are appointed foreign exchange transaction agents. In addition, three other institutions, the state owned National Savings Bank, Bank of Ceylon and MBSL subsidiary and the Sri Lanka Post Office are authorized to engage in restricted foreign exchange transactions.

There is a strong rationale for promoting international remittances to assist in alleviating poverty.

International remittances represent a flow of income for families in the developing world who might not otherwise receive assistance. Whether it is because of their location or social status, the majority of remittance receivers are the "invisible" poor. Remittances also help to foster a sense of financial democracy. Unlike other official forms of aid, they are distributed directly to an individual who retains full discretion to decide how it will be used. Remittances are non-reciprocal in that they are one-way financial flows with no anticipation of return or reimbursement. The availability of remitted funds may also indirectly help the communities within developing nations where the money is spent. For example, the extra income from remittance transfers may cover the basic needs and free up money which can be spent on education and health care, thereby resulting in a more productive and healthy citizenry. It is estimated that even a 3 per cent increase in the number of temporary visas issued to migrant workers would raise the world income by US\$ 16 billion. It is also estimated that for every 1 per cent increase in remittances as a fraction of a receiving country's GDP, the population living in poverty is reduced by approximately four-tenths of a per cent.

Remittances are also a stable form of external finance, and, unlike other forms of private capital inflows, remittances remain stable and often increase during times of economic hardship. This stability is due, in part, to the altruistic tendencies of those living abroad to send more help when more help is needed, and also because, in general, the remitter is located in a less economically depressed country. It is usually held that the amount of money remitted is inversely related to the strength of the receiver's national economy. That is, remittances increase sharply following economic crises. Remittances, therefore, provide a safety net during sudden economic downturns, financial crises, and unexpected shortfalls. The impact of remittances may be even more pronounced in countries experiencing warfare or unrest.

In order to achieve the targets stipulated in the Ten Year Plan, to increase remittances, there is a need to re-strategize the focus of temporary labour movement from low skilled to highly skilled in order to reap better development targets followed by further penetration to the existing markets as well.

10.2.2.1 Policy options to encourage inward remittances

Enhance the Use of Formal Remittance Systems. The potential of the formal remittance infrastructure is not being maximized. The country remains largely cash dominated. Although the banks report a relative good ratio of 1 checking account per 6 inhabitants, the usage appears low, with only four cashless

payments transactions per capita per year, or approximately 25 per account. On the other hand, many Sri Lankans keep large amounts of cash on hand. An average amount of SL Rs. 5,000 per capita was in circulation with individuals in mid-2004.

Reform efforts should be invested in enhancing the quality of the outreach and quality of the formal financial sector. Lessons learned from other economies such as Mexico, which has a large migrant population, suggest that in order to compete with informal service providers the formal sector should consider the following: greater investment in remittance technology; sharing electronic payments systems platforms; creating payments systems linkages with non-bank financial institutions; negotiating bilateral financial initiatives with remittance source countries; and promoting more financial education of migrant workers (Hernandez-Coss, 2005).

There is a timely need to improve remittance infrastructure for the provision of better facilities via the banking system to repatriate remittances and to attract remittances into the formal system. In particular, this calls for improvement of the rural banking network for broader reach. Banks have low market penetration in migrant communities, plus scarcity of bank branches in receiving areas. Through the informal sector money is normally hand delivered to remote areas within a few days. There is close to one bank branch per 14,000 inhabitants, but this ratio is inadequate to serve the nation given that the financial sector is predominantly cash-based and paper-based. Lessons from other countries show that this ratio should at least be 1:6,000 and ideally 1:3,000 or better, as is the case in most industrialized economies.

Cost reduction of the remittances transmission. When sending remittances, the fees incurred through the use of intermediaries continue to be of significant concern to migrants. Sending money to home countries entails costs of between 4 to 10 per cent of the funds sent. However, there are many options for reducing costs such as the formation of strategic alliance between Sri Lanka and host countries' money transfer companies and banks, the use of debit and credit card technologies to permit more direct transfers, and money transmissions to reduce costs. There is significant scope to reduce the fees on remittance services, especially for the small transfers typically made by poor migrants. Remittance transaction costs are often significantly lower than the fees that most customers pay. Reducing transaction fees will increase the disposable income of poor migrants and increase the incentives to remit (as the net receipts of beneficiaries increase). It may also significantly increase annual remittance flows to Sri Lanka.

A weak competitive environment in the remittance market, lack of access to technology supporting payment and settlement systems, and burdensome regulatory and compliance requirements all tend to keep fees high. Competition in the remittance market could be increased by lowering capital requirements on remittance services and opening up postal, banking, and retail networks to non-exclusive partnerships with remittance agencies (Global Economic Prospects, 2006).

Regulation of fees charged by private recruitment agents for low skilled jobs. Among the largest quantifiable costs to migrants are fees paid to private recruitment agencies, whose role in the international labour market has increased substantially. A major conduit of job opportunities for migrant workers, private recruitment agencies often are instrumental in seeking out new markets for job opportunities abroad. They also provide services such as language training and assistance with settlement. However, they also

can be a source of abuse (ILO, 2003b). Because many migrants lack information on foreign job markets, and some agencies may have considerable market power, there is a need to regulate fees charged for low skilled migrant workers.³⁹

Adoption of flexible banking terms. Many banks have limited product offerings. Some informal channels enable payments in advance (on future earnings), also informal sources provide items in-kind such as capital equipment, etc.

In order to increase the speed with which remittances are channelled through the formal sector, banks need to explore greater linkages with non-bank financial institutions. Speed is a critical consideration. With self-carried courier and Hawala deliveries, funds are available immediately, whereas some formal alternatives may take many days. Sri Lanka can further reduce the cost of remittances by increasing rural access to banking services through partnerships with non-governmental organizations and microfinance institutions. Such institutions may in particular be able to leverage remittance receipts to increase financial literacy and, if connected to payment networks, promote the use of technology in financial retail services. Such efforts would be hindered by the lack of network effectiveness that results from an excess of proprietary systems. Results can only be achieved with financially sound microfinance institutions.

Upgrading of the postal network to receive remittances. As the postal network is well established throughout the country it has a better reach for the low income households. Sri Lanka Postal network has tremendous potential for supporting the remittance industry in Sri Lanka with nearly 4,650 branch offices. Sri Lanka Post has a long tradition in providing financial services, mainly payments and savings, and these services constitute a substantial share of the workflow of the post offices. Sri Lanka Post is not connected to the Automated Clearing House (Lanka Clear), but efforts to increase its remittance capacity are under consideration. As part of the e-Sri Lanka program, Sri Lanka Post has recently launched e-money orders. Although the role of the postal network in domestic money transfers and migrant remittances is limited, there are untapped opportunities to expand these services by connecting the postal network with the local payments systems and international remittances networks.

Introduction of modern technologies for money transfer and innovative banking products. Some innovative arrangements include the following:

- Dual ATM cards - both migrant and beneficiary in the home country get cards
- Cell phone/G-Cash - cell phones turned into an electronic wallet
- Electronic postal money orders - recipient obtains funds at the post office
- Premium interest rate accounts for forex accounts to attract more savings due to higher return.

Making banking more accessible to migrants in the host country. There is evidence that Sri Lankan migrants do not have the necessary knowledge to make informed choices among remittance alternatives. Despite an unusually high literacy rate for a developing country, these workers are often oblivious to the realm of financial products and services available to them. The banking industry as a whole offers many

³⁹ Fees charged by recruitment agencies in Sri Lanka was USD 689 in 1995.

services that enable migrants to better manage their savings, but the country lacks a cohesive strategy for financial education of this vital sector of workers.

- Foreign banks to have more targeted products for migrants such as elimination of minimum balance requirement on accounts.
- Financial literacy awareness upon arrival in the host country.

Promotion of Skilled /Professional migrant workers. There is a need to re-strategize the focus towards skilled labour movement by exploring the labour standards and qualification gaps of the local labour and the government to work with host countries to identify the need for mutual recognition of Sri Lankan qualifications abroad. In addition, there is an urgent need to strengthen the regulatory framework for most of the professional categories in Sri Lanka.

Bilateral initiatives between remitting and recipient countries can enhance the remittances from the professional categories. The US-Mexico Partnership for Prosperity, a private-public alliance launched in September 2001, is perhaps the best example for Sri Lanka to emulate. Recognizing the need for cooperative measures to manage the flow of remittances, the United States and Mexico have worked together to streamline the remittance process and to enhance the productive use of remitted funds.

Remittances should also be channelled to the most productive use. Evidence shows that families with migrants invest more in physical assets, and have a higher level of enterprising activities. Therefore, an indirect avenue to encourage remittances is to facilitate more investments in the home country such as new enterprises etc. Some policy initiatives for consideration include the following:

- GOSL to introduce special incentives to facilitate investment activities originated from remittances.
- Provision of special rates to attract transfers into local savings and investment funds.
- Linking remittances to SME development - rather than trying to transfer migrants into entrepreneurs, it may be more realistic to introduce financial intermediaries that capture remittances as deposits and channel them to existing micro and small businesses.
- Preferential loans for business ventures using migrant remittances and provide access to capital for recent ventures.
- Tax holidays for capital imports of ventures using remittances.
- Awareness building of the different investment opportunities available.
- Business counselling and training programmes - Enterprise training programmes to pay attention to attract return migrants or members of migrant households for training.

Attention should also be paid to improve migrant welfare. Some policy options include:

- Sri Lankan embassies abroad to play a greater role in helping the temporary migrants. This needs to be taken up at the highest level of foreign policy formulation.
- Improvement of the welfare of the children left behind by the migrant parent/s. - establishment of child welfare centres for counselling etc. These child welfare centres can direct children with problems to registered homes if the existing arrangement is not satisfactory.
- Introduction of a special scholarship scheme for children of migrant parents.

Box 10.2

Collective Remittances through Hometown Associations and Matching Schemes

Many migrants are increasingly pooling their resources and investing collectively in development-related activities in home communities, either through hometown associations (HTAs) or other migrant group schemes. HTAs are the most prominent, because of their proliferation among the Latin American and Caribbean diaspora in Canada and the United States since the late 1990s. Similar associations exist in France (some 1,000 *organizations de solidarite internationale issues de migrations* or OSIMs), the United Kingdom, and Africa. The activities of HTAs are mixed and poorly documented, but they range from diaspora support in the host country to community investment projects in villages in the home country.

Collective remittances via HTAs currently account for only 1 per cent of all remittances in Central America, but it is estimated that they could rise to 3-5 per cent in ten years if their management and institutional capacity improves (IFAD, 2005). Most HTAs tend to be small scale and philanthropic in orientation, and they invest in projects of no more than \$10,000. They have traditionally focused on infrastructure and social projects (schools, churches, recreational parks, medical outreach clinics, and household support) and on channelling post-disaster humanitarian aid (for example, in El Salvador). In Africa, there is evidence that the more sustainable projects tend to facilitate household distribution of consumer goods (as in general stores or grain banks) or the purchase of farming equipment (Gubert, 2005). In Latin America, it is observed that when at least 30 per cent of households in a town receive remittances, HTAs can help improve the quality of life of households (IOM, 2005). But the focus of HTAs is expanding to include more investment in economic infrastructure and income generating projects managed by the community and local NGOs or banks (Orozco, 2003).

Governments have, on occasion, offered matching grants for remittances from diaspora groups or HTAs to attract funding for specific community projects. The best known of these matching schemes is Mexico's 3-for-1 program, started in 1997, under which the local, state, and federal governments all contribute \$1 for every \$1 of remittances sent to a community for a designated development project. By 2002, the 3-for-1 program had established projects totalling \$43.5 million, two thirds of which benefited labour-intensive agricultural economies in four high migration states (IOM, 2005). In the period 2002-4, more than 3,000 such projects benefited some 1 million inhabitants in 23 Mexican states.

Evidence from Mexico suggests, however, that HTAs have not been very successful. But in some cases (for example, Zacatecas) where HTAs have exchanged or debated project ideas and investment climate issues with the local and state governments, they are believed to have been successful.

On the positive side, HTA involvement in projects is argued to ensure that programs are focused on community needs. Resources have gone primarily to rural areas, where they have increased the supply of essential services (health, education, roads, and electricity). Donations by HTAs are often as much as or more than the municipal budget for public works, particularly in towns with small populations (Orozco, 2003). HTAs can promote higher standards of transparency and accountability among local authorities, and higher labour standards.

There are obviously limitations on the potential for HTAs to serve as conduits for broader development projects. They may not have the best information about the needs of the local community, or they may have different priorities. The capacity of HTAs to scale up or form partnerships is limited by the fact that their members are volunteers, and their fundraising ability finite. They can also become divided and weaken their own advocacy potential (Newland and Patrick, 2004). When matching funds come from fiscally constrained governments, there is also the problem that they may be diverted from other-perhaps higher priority-development projects, or from other regions with a greater need for assistance.

Source: Global Economic Prospects, 2006.

Box 10.3
Smart's Phone-based Remittance System in the Philippines

The largest mobile phone company in the Philippines, Smart Communications, has developed an innovative remittance system based on cell-phone text messaging. Cell phones are widespread in the Philippines, in use by at least 30 per cent of the 84 million Filipinos. A standard Smart remittance works like this: A Filipino in Hong Kong, China, deposits money to be remitted with one of Smart's remittance partners, which then sends a text message to the beneficiary in the Philippines, informing him or her of the transfer. The remittance is credited into a Smart Money "electronic wallet" account by any Smart mobile customer. The money can be withdrawn from an ATM using the Smart Money cash card, which can also be used as a debit card for purchases. Smart's partners in the Philippines-among them McDonald's, SM malls, SeaOil gas stations, 7-Eleven stores, and Tambunting pawn shops-will also pay out cash to Smart customers.

Smart has already formed remittance partnerships with Travelex Money Transfer; Forex International Hong Kong; Dollar America Exchange in California; CBN Grupo in Greece, Ireland, Japan, Spain, and the United Kingdom; New York Bay Remittance; and Banco de Oro Bank in Hong Kong, China. The system's simplicity keeps fees down. Fees at origination vary from country to country. In Hong Kong, China, it is about \$2. In the Philippines, it is 1 per cent plus the cost of the text message. The Smart system also appears to be secure. The use of different PINs for the cell phone and the Smart account make it difficult for a thief to access the funds. An ID is required when collecting cash.

Source: Global Economic Prospects, 2006.

10.2.3 Macroeconomic environment

Maintaining a stable macroeconomic environment is critical for sustained long-term growth. This is all the more important in view of the fact that Sri Lanka's recent growth spurt to some degree reflects a cyclical boom generated by a relatively loose fiscal and monetary policy stance. The economy is displaying some symptoms of overheating: consumer price inflation has risen to an annualized rate of 14 per cent, the current account deficit has widened from 2.8 to 5 per cent of GDP between 2005 and 2006 - implying that demand is rapidly outpacing supply. While monetary authorities have gradually tightened monetary policy, including through the use of higher interest rates, inflation has continued to rise with total credit growth expanding by 20 per cent. Low real interest rates and a sharp rise in bank credit have been fuelling the acceleration in growth to some extent.

The Sri Lankan economy will be hard pressed to sustain the higher growth momentum without further igniting inflation because of its relatively low investment rate. The higher growth momentum can be sustained if there are significant productivity gains - effective utilization of existing investment and/or higher volumes of productive investment. As the growth momentum gathers pace, the economy can be expected to increasingly run up against supply-side constraints, primarily in the form of infrastructure bottlenecks. However, a trade-off between growth and inflation can be avoided if the economy is able to increase potential output by improving its supply-side performance.

In this respect, the government anticipates a significant increase in investment, particularly in infrastructure. Total investment is expected to increase to 35 per cent of GDP (from the current 30 per cent). It is likely that any substantial increase in capital infrastructure investment will involve some increase in government spending.

The challenge will be to finance higher spending without further weakening public finances. The ability to raise government savings (revenue minus current expenditures) for investment from its current deficit position remains constrained. It would require a sharp increase in revenue and/or cut-backs on current spending. While there may be some scope for a gradual increase in government revenues on the back of higher economic growth and improved tax administration, increases in revenue in the short to medium-term will be limited. Nevertheless, there is room to improve revenue generation by simplifying the tax regime and eliminating exemptions - which can also be a means of reducing corruption in tax administration. Easing the means of payment of taxes such as making electronic filing and payment available to businesses can also assist in improving tax collection.

The most prudent option to achieve and maintain a stable macroeconomic environment is to pursue structural reforms that will release more funds for investment in critical areas of infrastructure, education and health. Rationalization in current spending will require consolidation primarily in the areas of salaries and pensions to the public sector, interest payments, and transfers and subsidies. Total expenditure on these three components already exceeds total revenues available to the government leaving limited room to increase capital investment spending. While it is recognized that most expenditure is hard to cut and if radical changes are not feasible, reforms will still need to be phased-in in the medium to longer-term if Sri Lanka is to address the underlying structural weaknesses in fiscal management.

In the short to medium-term, the urgent need of the government is to boost investment in infrastructure spending. While private investment is expected to take the lead in higher investment, involving private investors in infrastructure investment has proven to be difficult, not least due to the uncertainty of earning a reasonable return on their investments. Access to concessionary development finance from multilateral lending organizations may also be subject to 'conditionalities' requiring certain reforms such as the restructuring of state owned enterprises, public sector reforms, etc. that may not be a priority in the overall development agenda set by the government.

In this context, the key question remains whether Sri Lanka can afford to adopt an approach that allows a degree of flexibility in public finances in order to leave some room for manoeuvre in macroeconomic policy to achieve the country's broader development goals. Such a strategy is not without inherent risks, particularly given that it will not be an anti-cyclical deficit increase. Sri Lanka already suffers from an accumulated weak fiscal position with a stock of public debt accounting for around 95 per cent of GDP and persistent deficit financing requirements fuelling inflationary pressure in the economy. The large fiscal deficit does limit room for fiscal manoeuvre. If new spending implies the creation of net additional spending - i.e., an increase in the fiscal deficit - it can burden the economy with more debt in the long run.

The options available to Sri Lanka realistically to raise additional finances for investment purposes are limited. Further pressure on domestic borrowing remains difficult in view of the volume of funding that may be required, placing further upward pressure on interest rates. The absence of a deep and liquid capital market capable of handling domestic instruments means that governments may opt for foreign

financing (official bilateral and multilateral institutions and private sources). Foreign borrowing appears set to play a bigger role in public financing in Sri Lanka. In 2006, for example, the government raised US\$ 580 million by issuing 2-3 year maturity dollar bonds or Sri Lanka Development Bonds at rates of 120-140 basis points above LIBOR.

Sri Lanka's external debt has been on the rise in recent years and accounts for over 40 per cent of GDP. While this is significantly higher than the average for developing Asian countries, Sri Lanka's debt service obligations have remained fairly low in view of the fact that much of the accumulated foreign debt has been obtained largely on concessionary terms. Nevertheless, external debt service payments have crept up significantly in 2006 in view of both post-tsunami deferred payment obligations having to be met as well as increased reliance on short-term commercial debt. Although there are no set rules as to what is an adequate level of debt, the simplest policy proposition for debt sustainability is that the debt/GDP ratio should either stabilize or decline. It is, therefore, of concern that Sri Lanka's external debt/GDP ratio has been on an upward trend since 2000, creeping steadily upwards from 43 per cent to 49 per cent of GDP (with 2005 being an exception due to the tsunami response).

The only reasonable argument that can be put forward in favour of adopting a more flexible policy towards accessing international financial markets is if it can be justified on the grounds of generating significant economic benefits. It could, for example, be argued that it is appropriate for a government to borrow in order to invest in the future. Public spending on areas that clearly represent investment in the future has an advantage to the economy in terms of both a short-run stimulus and long-run investment, both public and private (on the assumption that public investment can act as a stimulant to private investment). To the extent that an investment makes the economy more productive, increased tax revenues may be available to pay off the loan. This would also require that attention is paid to the cost-effectiveness of government spending - for example, by ensuring that public investment in infrastructure is responsive to the most critical needs.

There are significant downside risks to external borrowing on commercial terms that have also to be borne in mind. Large amounts of external public debt, especially short-term un-hedged foreign denominated debt can lead to greater financial risk exposure for governments. The impact of sovereign credit ratings on access of developing countries to capital markets and on the terms of borrowing is significant. Worsening ratings can have adverse consequences on debt sustainability. As the ratio of short term debt to GDP increases or the amounts falling due increase, there will be more questions about the viability of rolling over existing external debt.

While such risks are more inherent under fixed or pegged exchange rate regimes, governments operating under floating exchange rate regimes are also not immune since a loss in market confidence can trigger exchange rate depreciation. If deemed desirable, monetary authorities may intervene using foreign exchange assets and/or increase interest rates to defend a currency. Hence a currency depreciation could trigger an increase in domestic interest rates. Governments, especially those with large external public liabilities that are not hedged appropriately could experience significant increases in debt-servicing costs.

Particular attention must also be placed to the balance between minimizing debt servicing charges and minimizing exposure to risks such as refinancing and market risks - essentially a trade-off between minimizing risks and minimizing costs has to be established. Long average-term maturity debt reduces risks but can be very costly if the yield curve is shaped positively. Short average-term maturity foreign denominated debt is appealing from a debt servicing cost perspective but can be very risky and increase a government's fiscal vulnerability. Relying too much on floating rate securities or short-term instruments - even if they are cheaper - might increase vulnerability because of the impact that higher interest rates could have on debt servicing costs. While improved debt management practices can reduce fiscal vulnerability, there is a limit to what debt and risk management practices can achieve if faced with weak macroeconomic fundamentals.