



The Study of Economic Significance of Coastal Regions of Sri Lanka in the Context of Environmental Changes of Pre and Post Tsunami



Ministry of Environment
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Preface

At present, the coastal region contribute to the national economy is not fully estimated in Sri Lanka. Studying the economic Significance of the coastal region of Sri Lanka in the context of environmental changes of Pre and Post Tsunami is much helpful for developing Sustainable Development programmes to ensure the Socio Economic states of the coastal community and environmental sustainability of the country. Many economic activities are concentrated in the coastal region in Sri Lanka. Estimation of coastal GDP will help to allocate resources in an efficient and effective manner. At present 59% of the Sri Lanka population live in the coastal districts with maritime boundaries.

The main objective of this study is to examine the current economic changes that have occurred in the recent past and to quantify these contributions in terms of economic activities to the national economy. The other objective is to estimate the impact of the tsunami disaster on the economy and environment in the coastal region.

The study shows that manufacturing, trade and tourism, banking, insurance and fisheries are the important economic sectors in the coastal region. The largest contribution to the national economy from the coastal region has been made by coastal trade and tourism.

The highest tsunami damage was recorded in Trincomalee, Ampara, Hambantota, Matara and Galle districts. 66,801 fishing persons affected and 23,206 fishing crafts were damaged. It was also reported that the heaviest damage occurred in tourism and agricultural sectors. Four percent of the fishing and tourism sector contribution to the GDP was lost in the 2005.

This study estimates the coastal GDP in 2004 at 1996 constant prices. The total national GDP value in 2006 was Rs.980,720 million. Of this value Rs.426,998 million was contribution from the coastal region amounting 44%. The ecosystem can be extended to a further extent in the hinterland beyond 50 kilometers of the boundary demarcation in this study. Because of the coastal habitats are heavily susceptible to depletion and degradation due to unplanned development activities.

This study used input-output techniques to examine the relationship between inputs of the coastal region and its outputs to the country. This can be used for predicting/forecasting future outputs. Also, the study provides the useful data and information that are enabling for assessing the damage in the coastal region and the lost of GDP from the coastal region due to the Tsunami.

This study was carried out by the Coast Conservation Department on request of the Ministry of Environment. The study is a component of the programme developed by the Ministry of Environment under the 'Strategic Planning and Developing Market Based Instruments for the medium to long term Strategic Planning of the Implementation of the Sri Lanka's National Program of Action (MBI/NPA)-2008'.

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Dr. R.H.S.Samaratunga
Secretary
Ministry of Environment

Foreword

This report evaluates coastal economic activities within the coastal region. Since there is no standard or well accepted definition for the coastal economic region, the coastal region is defined as the Divisional Secretariat having a maritime boundary. This area includes the coastal zone as well as the adjacent lands belong to a particular Divisional Secretariat Division. The coastal GDP estimated in this study includes the economic activities in the coastal zone and the neighboring area of Coastal Divisional Secretariat Divisions with maritime boundaries. There is a strong link between the coastal zone and the adjacent area in term of service supply factor and the product markets. Therefore, the boundary used for coastal region used in this analysis is appropriate.

It is important to examine the changes in coastal economy at different time tags and evaluate them with the current policies and practices in the coastal zone. The economic significance of the coastal region has studied first in 1994. The current study has also referred to examine the impacts of Tsunami 2004 in the coastal economy. Since the Tsunami hit nearly 2/3 of the coastal regions of the Island, the exercise is timely step for the decision making on rebuilding, updating coastal policies, and regulations.

Eng. Bandula Wickramaarachchi

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Executive Summary

The coastal region is the interface between the land and sea in area of great ecological sensitivity and vulnerability. The coastal region is relatively productive than that of other eco systems and important than other areas especially to the island nations.

Sri Lanka is an island nation well endowed with a variety of coastal resources. The contribution from the coastal resources in the coastal region to the national G.D.P. at present has not estimated and is useful in formulating development plans for the coastal region and to uplift the socioeconomic condition of the coastal population.

The objective of this study is to examine the current economic changes that have occurred in the recent past and to quantify these contributions in terms of economic activities to the GDP. The other objective is to estimate the impact of the tsunami disaster on the GDP in the coastal region.

The coastal region defined in this study is the Divisional Secretariat Divisions with maritime boundaries of the coast. The length of the coastal region may extend to 50 kilometers limit. Hence there is no standard definition for the coastal region and this nomenclature was used by the previous study in 1992. The GDP at national level published by the Central Bank of Sri Lanka for the year 2004 is disaggregated into Divisional Secretariat level for all economic activities using allocations and then aggregate only for the coastal D.S. divisions is the method used to estimate GDP in the coastal region. The study also estimates the impact of Tsunami to the coastal region in terms of monetary values to the GDP.

The study shows that the GDP of the coastal region in 2004 was 44 percent of the national GDP. This value is about 4 percent higher than the estimation of GDP in 1989 indicating an increasing trend. The estimated tsunami damage is only 1 percent and the coastal GDP in 2005 is 43 percent of the national GDP.

The study shows that manufacturing, trade and tourism, banking, insurance, fisheries are the important economic sectors in the coastal region. Many trade, service and manufacturing activities are concentrated in the costal cities while coastal tourism and marine fishing are the conventional economic activities in the coastal region.

Acceleration of economic growth, reducing poverty, and regional disparity are the primary challenges confronting the Sri Lankan government. Since a majority of Sri Lanka's population live in the coastal region strategies meeting these objectives has become a great challenge.

Fishing, tourism, trade and manufacturing are the key sectors in coastal region relative to others and have comparative advantage. The growing use conflicts between development and use of coastal resources have to be minimized through increasing awareness to achieve sustainable development in the coastal region.

SECTION - I

Introduction, Objectives,
Review of Studies and
Methodology

1.1 Introduction

Estimating regional/sub national accounts has become increasingly popular as well as an important pre-requisite in many of the developing economies. The Gross Domestic Product is the major measure used in national accounts and it measures the incremental/value addition to the economy in terms of goods and services for a specific period of time. Sri Lanka has estimated its provincial/regional accounts in the recent past and this has proved useful in formulating development plans and directing the economy for sustainable development.

Sri Lanka is an island nation and well endowed with a variety of coastal resources. The importance of estimating Coastal Gross Domestic Product in the coastal region goes back to the early 90's. The first attempt at estimating Coastal GDP was conducted in 1992 with the assistance of the USAID Cooperative Programme. The findings of the study were very useful and incorporated in formulating coastal resources development projects and various other programmes in the subsequent period. The concept of Special Area Management Programmes (SAM) also benefited from these findings and commenced to be implemented subsequently after these studies.

The pace of development in the coastal region since 1992 has been very rapid and has a significant impact on the natural resources of the coastal zone. Since 1992 various development programmes in the areas of fisheries, tourism, industries etc. have been implemented and there is a significant impact of these programmes on the coastal region.

1.2 Justification for the Study

- ❖ The coastal region is the interface between the land and sea in an area of great ecological sensitivity and vulnerability. Sri Lanka is situated in a strategic location on the international sea route between the West and East and also influenced by economic and cultural interactions for thousands of years. The demographic, industrial and development activities in the recent decade have brought in its wake a variety of threats to the stability and sustainability of the coastal zone.
- ❖ Many economic activities are concentrated more in the coastal region than in other areas of Sri Lanka. The contribution of these economic activities to the coastal GDP is a pre-requisite to formulate a development plan. No coastal GDP estimation has been conducted since 1992. Estimation of coastal GDP in different time intervals will help to allocate resources in a more efficient and effective manner.
- ❖ It has been revealed that the coastal region is heavily populated. At present 59 percent of the Sri Lankan population lives in coastal districts with maritime boundaries. Infrastructure facilities, employment opportunities, service facilities etc. are key areas demanded by them and proper planning in the coastal region is the only way to meet these challenges. Economic planning is based on accurate, updated/latest data and information. The estimation of GDP at appropriate time intervals is therefore a very useful tool in meeting the needs of development planning.

- ❖ The disaggregation of coastal GDP into different sectors will show the contribution of each sector to the coastal GDP. This estimation is useful and will guide the identification of large contributors and small contributors as well as potential sectors and help to make necessary adjustments.
- ❖ The economic activity of the coastal region is primarily based on the natural resources in the coastal region. The pace of development in the recent years has consumed more natural resources. However, the contribution of these resources to coastal GDP is not estimated. The contribution of these economic activities to the GDP needs to be carefully managed for sustainable development.
- ❖ The Tsunami disaster which occurred on 26th December 2004 created severe damage to the coastal resources and economic activities. The damage to the coastal GDP has not been estimated and is unknown.

1.3 Objectives

The primary objective of this study is to examine the current economic changes that have occurred in the recent past and to quantify their contribution in terms of economic activities to the GDP. The other objective is to estimate the impact of the tsunami disaster on the Gross Domestic Product in the coastal region.

1.4 Organization of the Study

The economic significance of the coastal region of Sri Lanka in the context of environmental changes of pre and post Tsunami is presented in four sections:

Section one sets out the background, the need for the study, the objectives, a review of studies and the methodology.

Section two presents the coastal region and Sri Lanka, GDP of Sri Lanka and GDP in the coastal region according to different sectors.

Section three provides an analysis of the coastal GDP in the post-Tsunami period

Section four presents the analysis, conclusion and recommendations for future sustainable development in the coastal region.

1.5 Review of Studies

There are not many studies that have been undertaken of economic significance on the coastal region. In the case of Sri Lanka, only one study has been done (Savundranayagam, Lal, Siripala 1994) on the economic significance of the coastal region. Many studies have been conducted in Sri Lanka for different aspects of coastal resources management. These studies also provide some assistance to identify and take necessary action for the sustainable management of coastal resources. The review of literature on the economic significance of the coastal region is useful as it gives some basic guideline for the selection of relevant variables and for the specification of functional forms to evaluate the contribution to Gross Domestic Product.

The first study relating to the economic significance of the Sri Lanka Coastal Region was conducted by Savundranayagam, Lal, Siripala in 1994. It was entitled The Economic Significance of Sri Lanka's Coastal Region. The objective of this study was to assess the contribution of the coastal region to the national economy and to give a measure of economic output and related measures of economic activity in this region. This document explains why the study needs a broader definition of the coastal zone to evaluate its contribution to national economy. At that time there were 14 districts and 67 divisional secretariats covering the coastal region with maritime boundaries. This study was the first one in estimating GDP for a coastal region as whole by disaggregating GDP at national level. Part two of the study analyses the economic significance of the coastal zone. The study provides a summary of the Gross Domestic Product at national and coastal for 1984 and 1989 which is given in table 1.1.

Table 1.1 Proportionate to GDP

	1983		1989	
	National	Coastal	National	Coastal
Agriculture Forestry and Fishery	28.3	12.7	24.6	10.0
Mining and Quarrying	2.5	1.1	3.0	1.4
Manufacturing	14.0	14.0	17.2	17.4
Construction	8.6	6.7	7.4	6.0
Electricity	1.3	1.5	1.4	1.6
Services				
Transport and Communication	11.0	12.9	11.2	12.7
Wholesale and Retail Trade	19.1	30.6	19.4	31.8
Banking and Insurance	3.7	6.6	4.0	6.8
Ownership and Dwelling	3.2	3.6	2.9	3.1
Public Administration & Defence	3.6	3.4	4.8	4.1
Services n.e.s	4.8	6.8	3.9	5.0
	100.0	100.0	100.0	100.0

Source: *Saundranayagam, Alwis, Joseph and Nimal Siripala, The Economic Significance of the Coastal Region in Sri Lanka (1994). The Coast Conservation Department, Colombo*

According to this table, the largest contribution was made by the wholesale and retail sector. Manufacturing, transport, storage and communication and fisheries are other important sectors that contributed to the Coastal Gross Domestic Product. Electricity, Gas and Water and sanitary service sector has contributed the smallest percentage. During the period of 1983 to 1989, the structure of contribution to the coastal sector changed significantly in the wholesale and retail trade. The contribution of agriculture, forestry and fisheries declined while banking and manufacturing increased. After this study in 1994, for a period of about 16 years no study has been undertaken. A massive change in the economic activities in the coastal region has been experienced in the recent past but no study has been conducted to examine the exact change.

The economic significance of the Coastal Region has been emphasized by including it in the Coastal Zone Management Plan. The first Coastal Zone Management Plan (CZMP) was prepared

in 1990 and is reviewed about once in four years. The Coastal Zone Management plan (CZM) emphasizes the need for integrated Coastal Zone Management to conserve, develop, and use in sustainable manner the resources in the coastal region. The scope and goals of the Coastal Zone Management Plan basically provides an insight into the status of the coastal environment identifying the nature and magnitude of the problems and issues to be addressed in the coastal zone. An outline of the existing plan, policies and programmes, laws institutional mechanisms, enforcement and present objectives, policies, strategies and proposed actions are the sections in the coastal zone management plan. The CMZ plan does not define the coastal region. The Coastal Zone, defined by the Coast Conservation Act is that area lying within a limit of 300 meters landwards of the mean high water lines etc. which is reflected in Annex I. The coastal region in a country like the Maldives is different from that of other island nations. For instance, the entire island belongs to the coastal zone or coastal region. With the increasing development activities and interrelated nature of coastal zone activities, the coastal region is a useful concept to be used in the CZM of island nations.

Coastal 2000 (A Resources Management Strategy for Sri Lanka's Coastal Region.) is an important study in relation to the economic significance of the coastal region. The study was conducted by a collaborative effort of the URI/USAID and the Coast Conservation Department. The main objectives of this study were to formulate policies and strategies for the second generation of coastal resources management. The study identified two generations in the coastal resources management strategies as first generation and the second generation coastal resources management strategies. Coastal 2000 also emphasized that the definition of Coastal Zone is narrow and should be widened.

The first generation efforts of coastal management were pioneered by the Coast Conservation Department. Coastal 2000 is the second generation effort and designed to respond to the coastal people's needs to sustain and improve the quality of life in tangible terms.

Coastal 2000 has two volumes. Volume 1 concentrates on the environmental and social context of the coastal management, brief history of coastal management in Sri Lanka and primary issues to be addressed in a coastal management programme. Volume two presents the policies to be addressed in coastal management in the second generation.

1. The coastal management programme will proceed simultaneously at the national, provincial, district and local levels with the collaboration required to achieve effective and participatory resource management by governmental and non-governmental agencies,
2. It will implement a programme to monitor the condition and use of coastal environmental systems and the outcomes of selected development and resource management projects through collaboration of the Coast Conservation Department (CCD), National Aquatic Resources Development Agency (NARA), Central Environmental Authority (CEA), Irrigation Department (ID), Ministry of Fisheries and Aquatic Resources (MFAR) and other agencies.
3. It will implement a research programme of direct relevance to Coastal Resources Management (CRM) through NARA, national universities and other institutions which

will provide a better understanding of ecological processes and social and cultural issues as well as provide information of critical importance to the formulation and implementation of coastal resources management plans.

4. It will implement a programme to strengthen institutional and human capacity to manage coastal ecosystems.
5. It will update and extend the scope of the master plan for coastal erosion management.
6. It will implement a programme to create awareness, both by national and provincial government personnel and NGOs, of the strategies for coastal resources management and the issues they address

Coastal 2000 can be viewed as a useful document in designing and identifying the current study of the economic significance of the coastal region.

Another important study relating to the economic significance of the coastal region was conducted by a survey of the Coastal Zone of Sri Lanka by Prof. Madduma Bandara (1989). It was undertaken by the University of Colombo at the request of the Coast Conservation Division of the Ministry of Fisheries in 1989. The field studies were conducted along the entire coastal zone of Sri Lanka. The Coastal Zone covered in the study was the Western Coastal Zone, the North-Western Coastal Zone, The Northern Coastal Zone, the Eastern Coastal Zone, the South-Eastern Coastal Zone, and the South Western Coastal Zone. The specific objective of this study was to observe the maps and prepare an inventory of the natural resources and man-made coastal structures through field observations. It also identified the land use and land forms in the coastal region. This study collected a considerable quantity of information on the nature of the coast line, dominant vegetation types, dominant human types, water front structures, land utilization (agriculture, recreation, commercial, residential,) and land uses relating to transport and mining.

Another important study relating to the economic significance of the coastal region was the coastal and marine resources management and poverty reduction in South Asia. The Sri Lanka, Component was conducted by Prof. Madduma Bandara (2000). The study was financed by the Asian Development Bank (2002) and IUCN (International Union for Conservation) executed the project. The overall objective of the project was to promote Regional Cooperation among four countries namely India, Pakistan, Maldives, and Sri Lanka. It also assisted in the formulation of strategies for Regional Cooperation in integrated coastal zone management planning, capacity building, and information exchange. It also aimed at identifying ecologically sensitive areas requiring priority investment support for consideration and pilot testing in selected countries in order to address environment poverty linkage efforts. The report provides the overall perspective on integrated coastal zone management in Sri Lanka with technical input addressing related issues. The important areas relevant to the present study are the latest classification of Divisional Secretariats which have maritime boundaries, definition of the coastal region, land use coastal eco system, habitats by districts, socio-economic conditions and economic analysis of the coastal region.

The System of National Accounts prepared by the United Nations in 1993 is a useful document in estimating GDP and other national accounts. It provides guidelines in preparing the new system of

National Accounts. National accounts is a comprehensive term covering national products and expenditure accounts, input output table, flow of funds, and national balance sheets. This new system is a revision and extension of the conventional system. The National Accounting System which was formulated is 1952 revised once in every 15 years. It describes the techniques of compilation of national accounts. The main objective of this book is to provide comprehensive and detailed framework for the systematic and integrated recording of the flows and stocks of an economy. It supplies guidance relating to the framework in which countries may systematize, expand and use their national accounts and coordinated basic accounts. The framework of the national accounting system is elaborated into full definitions and classifications in order to standardize the compilation of national accounts in the member countries. These definitions and classifications are designed to be adaptable by countries for use in their national accounting and gathering, and for compiling aligned bodies of economic financial and other statistics. The building bricks of these accounts are provided by almost all areas of economic statistics. This document suggests various ways in which developing countries can adapt and build the new SNA in the light of their own needs and circumstances.

The Finance Commission of Sri Lanka has compiled the Provincial Economic Accounting Statistics (GDP) over the period of 1998 to 2004. It shows the economic accounts in terms of production approach at provincial as well as at district level for the eight Provinces. The report describes the quantity of production, value of production, and cost of intermediate inputs in twelve sectors of the economy. Both primary and secondary data were used for compilation of GDP over the period 1998-2004. This report also provides the sectoral value added ratio. It was computed using primary data and information.

1.6 Review of Studies: Environmental Changes of Pre – Post Tsunami

The other section of this study is the Environmental Changes of Pre- Post Tsunami. Several important studies have been conducted by different Line Ministries during early 2005 with the assistance of donor/ international agencies to assess the damage and for restoration of the coastal resources due to Tsunami disaster. Of these studies, Tsunami Mapping Programme conducted by Geological Survey and Mines Bureau (2005), Ministry of Fisheries (2005), the Ministry of Tourism Survey on Tsunami damage (2005), Rapid Assessment of Damage to Natural Ecosystems in the Coastal and Associated Terrestrial Environment (United Nations and the Central Environmental Authority, 2005) and the Rapid Environmental Assessment on Post-Tsunami Brown Environment by the same agencies are important studies for this report.

The Geological Survey and Mines Bureau (GSMB) conducted the first scientific study in order to assess the morphological and geological effects and impacts, sea water penetration and inundation levels along the entire coastal belt except the Mullaitivu District. According to the findings of the report, the effect of the tsunami waves especially, the degree of physical destruction and the limit of inundation varied from location to location in different parts of the island. They assessed the degree of destruction of tsunami under four classes as severe, moderate, slight and no damage. The highest damage was recorded in certain highly populated coastal strips in Trincomalee, Ampara, Hambantota, Matara and Galle districts. There was no direct control of coastal, geographical and

off-shore bathymetry in this context. The report stated that the distance of inundation varied considerably from few meters to about 3.5 kilometers into the island. On the Eastern coast a maximum inundation limit of 2 km inland was reported off Batticaloa and also Kuchchavali near Trincomalee. On the Southern coast in areas around Udamalala, Kalametiya and Gurupokuna the sea water intruded through the inland lagoon systems. On the Southern Coast, at Peraliya and Akurala, inundation was reported for about 2 km inland. It has been reported that the sea water penetration was stopped when there were sand dunes and mangrove forests in certain locations along the Southern Coast.

The Statistical Unit of the Ministry of Fisheries prepared an important set of statistics in 2006, on the summary information on fisheries affected by the Tsunami of 26th December 2004 on the findings of Fisheries Sector Damage Assessment Survey 2005 conducted by them. According to this the total number of fisheries persons affected due to the tsunami was 66,801 and the total number of fishing crafts damaged was 23,206 in all the coastal districts. The report is very useful in assessing the damage and estimating the impact on the Gross Domestic Product of the Tsunami.

The Ministry of Tourism has conducted an island wide survey to assess the impact of the Tsunami to the tourism industry. The survey was conducted under two categories, Hotels and Industries valued over Rs. 10 million and below Rs. 10 million. According to the survey under category I (Hotels valued over Rs. 10 mn), 56 hotels were damaged in a sum of Rs. 3622.6 million. Nine industries under this category were damaged in a sum of around Rs. 232.84 mn. With regards to hotels valued below Rs. 10 mn, 466 hotels were damaged in a sum of Rs. 1466.5 mn. Also 217 industries under this category were damaged in um of Rs. 269.7 mn.

The impact and damage caused by the Tsunami on agriculture was assessed by the Ministry of Agricultural Development with the assistance of the Food and Agricultural Organization in 2005 and a workshop was conducted in March 2006. It has been revealed that the direct impact and damage caused by the tsunami on agriculture in term of assets lost is small compared with other sectors such as fisheries and tourism. However, tsunami sea water intrusion into coastal districts has caused damage of around Rs. 509 million. The report also provides the breakdown of damage into different crops (paddy, field crops, perennials) etc in 12 administrative districts. The total no. of farms damaged due to the tsunami was 8,366 with paddy 3520 ha, O.F.C. 269.5 ha, vegetables 242.6 ha, fruits 242 ha causing a damage of Rs. 509.4 million.

The Survey was not conducted for Kilinochchi, Gampaha and Colombo. Sea water intrusion has also caused damage to soil and water resources. In some instances, Tsunami waves resulted in salt fixation in the top soil and saline sea deposits which cause soil salinity. The report provides useful data and information for the damage assessment for incorporation in coastal GDP estimation.

The Ministry of Environment and Natural resources with the assistance of United Nations Environmental Programme has conducted two studies in 2005 to assess the Tsunami damage. The first study was on Rapid Assessment of Damage to Natural Ecosystems in the Coastal and Associated Terrestrial Environments. The objective of this study was to identify the extent of damage to natural ecosystems (habitats), evaluate policy relevance of findings, and assess the impacts on the terrestrial environment associated with the coastal ecosystems, identify possible impacts of existing relief and reconstruction measures on the coastal habitats etc. The study used a

sampling at intervals of one kilometer along the coastline in all affected districts. Geo- reference data were collected for damage to coastal ecosystems, the associated terrestrial environment and the inundation pattern. On Damage in the field was observed and recorded. Damage to beaches, sand bars and spits, estuaries, lagoons and bays, sand dunes, mangroves, green belts, agricultural crops, other vegetation, protective structures were photographed and the damage evaluated. The findings of the report were useful in the restoration of coastal habitats in the subsequent period.

The other study covered the Brown environment assessment. The Brown environment study covered 11 sectors namely the general economic and post-Tsunami activities, health sector, security related activities, transport, tourism, industry, agriculture etc. The damage in each sector was assessed under four headings as very low, low, moderate, high and very high. The total number of locations under all these sectors assessed in this study was 170. Of these locations, 106 were moderate while 9 were high. There was no very high ranking and the number of items in the very low category were seven. The findings of this study are very useful in developing a method to assess the impact of Tsunami damage to the coastal GDP.

The Preliminary Damage and Needs Assessment of Sri Lanka - 2005 Post-Tsunami Recovery Programme prepared by the ADB, JBIC and World Bank is one of the important studies in damage assessment and rehabilitation and reconstruction needs of the Tsunami disaster. The study report provides the damage in various sectors of the economy in terms of physical damage and monetary valuation which is useful in GDP loss estimation.

1.7 Theoretical background and the Methodology Used

The most common summary measure of national economic activities is Gross Domestic Product (GDP). It may be defined as the value of the final goods and services newly produced in a country and not resold as input during an accounting period. Gross Domestic Product is a total value added in all resident producing units. GDP includes only new production. The sale of existing assets (e.g. used car etc.) is a private transfer that does not add to current production and is therefore, not included in GDP.

There are three traditional ways to estimate the aggregate production of the economy.

- Production or Value added method
- Income method
- Expenditure method

In the production method, gross output or sale of goods and services produced by the private economic enterprises in various industrial sectors, by the government sector, and private households are estimated; then the purchases of all intermediate goods, use using the production process are subtracted to obtain the total domestic value added.

In the income method, the aggregate income before taxes received by the factors of production is estimated by adding remuneration of employees and the operating surplus of all producing unit.

In the expenditure method, final expenditure for private consumption, gross private investment, public consumption, net increase in inventories and net export are all added together. Because these

three alternative methods of estimating the value of domestic product rely on different data sources, statistical discrepancies may occur. As a principle, the value of GDP estimated by these three methods should be consistent.

There is no institute or any one who divisionalized National Accounts into DSD (Divisional Secretariat Division) level. Therefore, a researcher who attempts to disaggregate GDP into DSD level can apply two approaches as follows.

- (a) A long-term approach which involves the revision of all collection vehicles (such as Census and Survey forms etc;) in all areas pertaining to the national accounts in order to ensure incorporation of divisional dimension in them. Subsequently data processing should capture and incorporate the divisional elements. This is a major task likely to take between 3 to 5 years and it is a long time consuming and expensive one.
- (b) A short term approach involves establishing a system of divisionalized economic indicators in the form of related or explanatory variables, and using such indicators to disaggregate the GDP in term of Production, Income and Expenditure into Divisional Secretariat Divisional level (DSD).

In this study, the second approach (b) was used because of the time and cost constraints. GDP at national level published by the Central Bank of Sri Lanka in 2005 was disaggregated into DSD levels for all economic sectors using allocators. These indicators were constructed using the variables related to gross output ,revenue or employment, in the sector or industry which served as 'indicators' of divisional distribution of value added (GDP). In our estimates, using the related indicator variable was the second best procedure, if the actual value added was not available by division. However, every effort was made to ensure that the divisional allocators used the best related information for the purposes. Nevertheless, disaggregation of national data (GDP) into divisional level had certain limitations as further disaggregation would result in loss of integrity of the numbers.

For the disaggregation, indicators for different sectors are given in Annex III. Production, Revenue and employment are the types of indicators used in this study (see annex III).

Estimation of the Coastal GDP in the Post-Tsunami period

The following assumptions and steps have been followed to estimate the Tsunami damage in terms of coastal GDP is described as follows.

- There is no standard method or procedure to integrate this type of damage into GDP estimation.
- Based on data and information of the Tsunami damage and intensity of the damage, the link between damage and the GDP of different sectors will be examined.
- Damage assessments in different sectors will be estimated by using this relationship.
- Coefficients are developed to link the GDP and the correlation of different sectors.
- Using coefficients and damage impacts, Coastal GDP are estimated.

- The coefficient is average value of GDP in the sector per indicator (eg. A bus, a lorry, a three wheeler, a van etc; for Transport, a boat for fishing sector, a hotel and a trade centre for Tourism and Trade sector, an acre for paddy).
- Tsunami affected GDP in a sector equals to the GDP coefficient in a sector times number of indicator in the tsunami affected sector.(eg. In the paddy sector, GDP coefficient in the paddy sector is multiplied by the number of tsunami affected paddy acres.)

Annex II

Uses of GDP

(a) As a framework for coordinating of economic activity

The compilation of GDP requires large quantities of data accounts and these building bricks for these accounts are provided by almost all areas of economic activities and statistics. The use of economic statistics in these accounts provides check on the compilation of data and reveals gaps in the available statistics when the gap exists compilation of GDP will render significant help in evaluating their importance and priority in deciding the allocation of resources among competing demand.

(b) As a system of presenting information

It is difficult to have a proper and clean understanding of an economy unless data are presented in a systematic manner. In this connection, GDP presents a summary of economic activity by drawing a distinction between, form of economic activity, type of transaction, sectoral and sub divisions for the type of accounts.

(c) As an analytical tool in economic policy formulation

GDP serve as an important guidance in policy formulation for achieving given objectives for growth rates over period of time.

(d) As a media to introduce basic macroeconomic concept

The data presented by the GDP help to analyze important aspect of economy which relate to the field of macroeconomic variables.

Annex III

Description of Indicators used for the study, Methodology

(a). Production.

This is the second best type of divisional allocators and it provides a close relation to the value added (GDP) or gross output.

(b). Revenue as a indicator of gross output

Revenue as an indicator for disaggregating value added of Electricity industry, Gas and Water is used because these are distributed through national network from a generating centre or water deserver.

(c). Labour input as an indicator of gross output.

This is the third and the weakest type of indicator used as a proxy for value added or gross output. In the case of government service sector and private service sector, there is fundamentally no choice. No other type of indicator is available to allocator service sector activity except employment. In the case of banking and insurance, trade and tourism, transport, and construction sector, employment was used as supporting indicator when the type (1) indicator is insufficient.

Labour input as an indicator of gross output is weak because labour has to be combined with the other factors of production. The labour input bears a direct relationship to production. In the case of government and private services where land, capital and technology play a very small part but wages and salaries of labour comprises 90 % of the cost of production.

In this study, in the case of more than one indicator of industry for aggregating national level GDP into divisional level, weight is given to each indicator on the proportion to value of GDP in the industry. Weight is depending on the indicator which is closer relation to the industry.

GDP by Industry and Indicators.

(a). Agriculture, Forestry, Fisheries and Livestock.

Industry	Indicators
1. Crops	- Value of production by crops - Area under cultivation by each crops
2. Forestry	- extend of forested land - Number of logs harvested by species and broad feet. - Quantity of fire wood gathered
3. Fisheries	- Number of fishery harbour, - Number of boats, - No. of lagoons - No. of shrimp farms and hatcheries - Quantity of fish caught both sea and inland
4. Livestock	- Size of herds, by the type of livestock in the Division - Poultry and eggs Numbers/ quantity.

(b). Mining & Quarrying

Industry	Indicators
1. Mineral Sands	- No. of deposits - Revenue of gross sales - Alternative: Number of workers.
2. Ceramic Raw Material	- Consumption of Ceramic Raw Material
3. Construction Material	- No. of licensed mines and quarries - No. of trading licenses - No. of applications for mining explosive.
4. Other Minerals	- exploration licenses

(c). Manufacturing – by sub industry

Indicators
- No. of industries, size of industries, (small, medium, large) - No. of factories - revenue of gross sales - workers in each factories

(d). Construction

Industry	Indicators
1. Residential	- No. of new houses built in the division by type of materials and size. - No. of permits issues for building the houses - Alternative: No. of constructors and No. of production workers
2. Non- residential	- No. of new buildings or structures (industrial, commercial , public buildings, farm structure) - No. of permits issued - Alternative: No. of constructors and No. of production workers
3. Infrastructure	- No. and miles of new/upgraded high ways/roads - No. type of new bridges, other public works Including dam, major irrigation projects

(e). Utilities (Electricity, Gas and Water)

Indicators
- Electricity sales in DSD by type (residential, commercial, factory etc.) - No. of consumers in Electricity, Gas and Wate

(f). Transport and Communication

Industry	Indicators
(1) Land Transport (operating in the Division)	
Buses	- No. of buses, revenue by buses
Lorries	- No .of lorries, Dual and Land vehicles, lorries,
Dual Purpose Vehicles	- No. of Three Wheelers
Three wheelers	- Alternatives: No. of employees
Land vehicles	
(2) Water transport (operating in the Division)	
	- Port: cargo loaded/unloaded in the port
	- No. of Containers out going and in coming
	- No. of ferries and employees
(3) Air Transport	
	- Katunayake International Airport
	- no. of passengers /flights
	- regional local airports; No. of domestic flights/ passengers.
	- helicopter service No. of flights/passengers.
	- Alternatives: No. of employees
(4) Rail transport	
	- No. of Stations in the division, revenue collected by the Stations.
	- Miles of rail track within the division.
	- Alternatives: No. of employees
(5) Post office	
	- No. of Post offices and sub post offices in the division. (Govt. and Agency)
(6) Telecom	
	- No. of residential /Commercial phones in the division
	- Revenue from phone bills in the division.
	- No. of telephone lines in the division.

(g). Trade & Tourism

Industry	Indicators
(1) Wholesale and Retail trade	
	- Number of retail or wholesale trade outlets or stores in the division.
	- Public market and trading centres
	- Alternatives: employees or self employed in trade

(2) Tourism

- Number of hotels, motels guest houses in the division.
- bed capacity of each
- No. of restaurants ,caterers, pubs
- Gross revenue of each
- No. rivers, cannels
- area of forest
- No. of archeological places.
- Alternatives: no. of employees or workers

(h). Finance, Insurance, Real Estate and Business Service

Industry	Indicators
(1) Banks	- No. of bank branches, Total deposits; - Alternatives: Bank employees of the bank branches in the division.
(2) Other financial institutions (Rural and Development Banks, Co-ops, credit societies) same as above (1).	
(3) Insurance Companies	- No. of Insurance Company branches and agents in the division; No. of policies issued by type; gross revenues
(4) Real Estate Companies	- No. of real estate companies and agents or Employees; - Gross value of commissions and sales.
(5) Professional and Business Services	- No. of officers, engineers, architects, accountants, Business or consultants, lawyers,

(i). Private Services

Indicators
All other private service firms such as - Repair shops for clothes, shoes, appliances, electronics - Entertainment and amusement services such as video rentals, cinemas, night clubs, sports clubs - Media –TV and radio stations newspapers, and magazines - Household services – no. of servants; plumbers, electricians - Religious services - No. of workers in churches, and temples, charity or welfare organizations, civic clubs, NGO's - Health and beauty services- beauty parlours, barbershops, spas, massage parlours - Services incidental to agriculture, mining, manufacturing, construction, utilities.

(i). Public Services

Industry	Indicators
(1) Education	- including private and public school at all levels (elementary, secondary, universities, colleges, technical and vocational institutes), private school of dance, music, fashion, computer, marital arts, etc. - number of teachers, no. of students in the division, - public expenditure on education in the division
(2) health	- no. of public and private hospitals, clinics in the division - no. of beds in hospitals, no. of doctors, nurses, dentists, opticians and other health practitioners workers (incl. self employed and revenue)
(3) Public Administration	- amount of public expenditure, no. of public agencies, no of government employees.

Estimation Procedure

Guidance Notes and worked examples

For disaggregation of GDP at national level into the Divisional Secretariat level (DSD) short term approach (as described in methodology) was applied.

The economic sectors can be categorized into two major sectors viz; The sectors (Tea, Rubber,) which not consists of sub-sector, which consists of sub sectors (Transport sector).

Disaggregation of National value into district level

- a. Economic sector which not consists of sub sectors

GDP value at national level of these economic sectors can be disaggregated directly into the districts.

1. Estimation of District value

District proportion of GDP to the GDP national value was computed using district indicators as follows (eg.this study assumes that the indicator for tea sector is number of acres under tea cultivation)

$$d_i = \frac{INDD_i}{TOTINDN}$$

d_i = i^{th} district proportion to national total

$$\sum_{i=1}^n (i = 1, 2, 3, \dots, n^{th} \text{ Districts}) \quad \text{so } d_i < 1$$

$$DGDPS_i = d_i * GDPS_i$$

$INDD_i$ = number of acres under (tea) cultivation in District

$TOTINDN$ = Total number of acres under (tea) cultivation in the country

$GDPS_i$ = Sectoral GDP at National level

$DGDPS_i$ = Sectoral GDP at i^{th} district level

2. Estimation of Divisional Secretariat Division (DSD) value

To disaggregate the district value into DSD level, following method was applied.

$$dv_i = \frac{INDDIVI}{INDD_i}$$

dv_i = i^{th} DSD proportion to i^{th} District

$$\sum_{i=1}^n dv_i = 1$$

$$DVGDPS_i = DGDPS_i * dv_i$$

$DVGDP_i$ = GDP value at i^{th} DSD

- b. Economic sector which not consists of sub-sectors.

For this type of economic sector, value of sectoral GDP is disaggregated into sub- sectors using allocator (weight).

The weight is applied to sub sector to break down the sector GDP from main sector (eg.Transport sector comprises land transport, air transport, water transport, railway etc.)

1. Sectoral proportion at national level

Scw_i = weight (coefficient)

$$\sum_{i=1}^n swc_i = 1 \quad \text{so} \quad swc_i < 1 \quad (i = 1, 2, 3 \dots n) \quad n^{\text{th}} \text{ sector}$$

$$SUBGDPS_i = GDPS_i * swc_i$$

$GDPS_i$ = Sectoral GDP at national level

$SUBGDPS_i$ = Sub –sector GDP at national level

2. Estimation of sub-sector proportion at district level

$$sd_i = \frac{SINDD_i}{SINDN}$$

$$SGDPD_i = SUBGDPS_i * sd_i$$

$$\sum_{i=1}^n sd_i \quad \text{so} \quad sd_i < 1$$

$SINDD_i$ = Number of value of Sub sector indicator (Number of vehicles) at district level

$SINDN$ = Number of value of sub sector indicator at national level

3. Subsector proportion at DSD level

$$sdv_i = \frac{SINDDIV_i}{SINDD_i}$$

$$DVSUBGDPS_i = sdv_i * SGDPD_i$$

$SINDDIV_i$ = Number of value of sub-sector indicator at i^{th} DSD

$DVSUBGDPS_i$ = Sub sector GDP at i^{th} DSD

sdv_i = divisional proportion to district

4. Disaggregation of Activity level

GDP of some economic sectors consists of major activities as a example, GDP value of land transport is shared by different activities such as activity of buses, dual purpose vehicles three wheelers etc.

In this exercise, these sector GDP were broken down to each activity to minimize errors.

aw_i = given weight (allocator)

$$\sum_{i=1}^n aw_i = 1 \quad \text{so} \quad aw_i < 1$$

$$ACSGDPS_i = SUBGDPS * aw_i$$

$ACSGDPS_i$ = Sub sector GDP in activity level

The estimated activity level GDP can be disaggregated from district level to DSD level using above described proportionate method.

Disaggregation of GDP at national Level into Districts.

Assume A country has four district namely A,B,C and D. Main cultivation is JUTE.

There are 240 acres in Jute and GDP in Jute is Rs. 500 mn. GDP in jute is broken down in to district as follows;

Assume that the indicator is the number of acres under Jute Cultivation by district

District	No. of acres (indicator)	Proportion to total acres
A	60	0.25
B	40	0.17
C	120	0.50
D	20	0.08
Total	240	1.00

Allocate the value of GDP to District proposition.

District	No. of acres (indicator)	Proportion to total acres
A	$500 * 0.25$	125.00
B	$500 * 0.17$	85.00
C	$500 * 0.50$	250.00
D	$500 * 0.08$	40.00
Total		500.00

Sub sector proportion

Sector values are disaggregated into sub sector. Assume Transport sector in Avancia consists of 4 sub sectors viz; Road, Rail, Air and water Transport. In the case of this, weight is given to sub-sector on the basis of importance of the sub sector. Assume that GDP in Transport sector at national level is Rs. Mn 750

Sub sector	Given Weight	GDP calculation
Road	0.60	$0.60 \times 750 = 450.00$
Rail	0.16	$0.16 \times 750 = 120.00$
Air	0.14	$0.14 \times 750 = 105.00$
Water	0.10	$0.10 \times 750 = 75.00$
Total		750.00

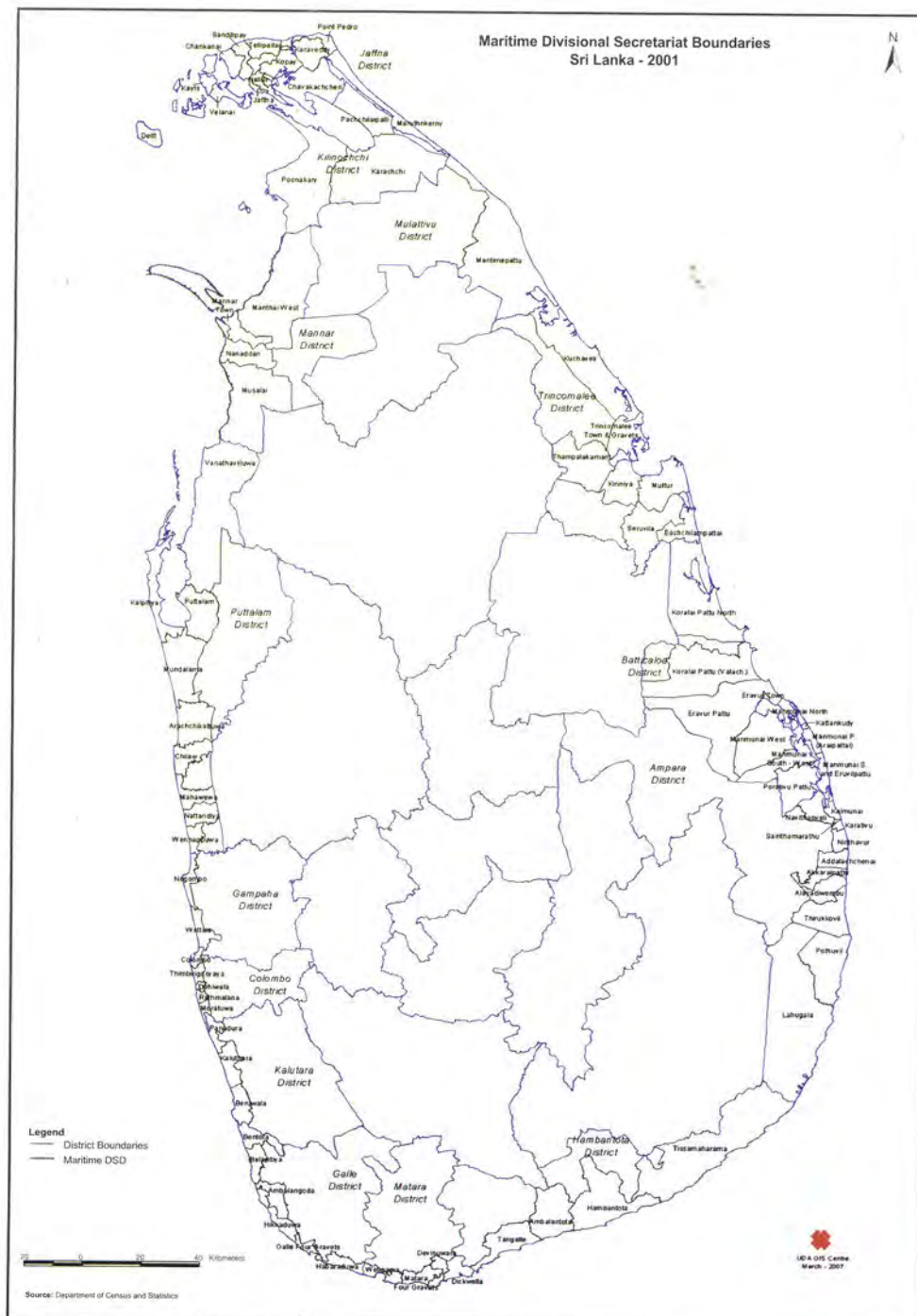
Allocation of sub sector value into activities

Road transport sector comprises Buses, dual purpose vehicles, land vehicles and Three Wheelers. Calculated GDP in Road Transport is Rs 450 mn

Activity	Given weight	GDP
Bus	0.80	$0.8 \times 450 = 360$
Dual purpose	0.12	$0.12 \times 450 = 54$
Land Vehicles	0.05	$0.05 \times 450 = 22.50$
Three Wheelers	0.03	$0.03 \times 450 = 13.50$
Total	1.0	450.00

Annex IV

Maritime Divisional Secretariat Boundaries – Sri Lanka



Coastal Districts, DS Divisions with maritime boundaries of Sri Lanka

District	D.S. Division
1. Colombo	1. Dehiwela- Mount Lavinia 2. Ratmalana 3. Moratuwa 4. Thimbirigasyaya 5. Colombo
2. Gampaha	6. Negambo 7. Wattale
3. Kalutara	8. Panadura 9. Kalutara 10. Beruwela
4. Galle	11. Bentota 12. Balapitiya 13. Ambalangoda 14. Hikkaduwa 15. Galle Four Gravets 16. Habaraduwa
5. Matara	17. Weligama 18. Devinuwera 19. Dickwella 20. Matara Four Gravets
6. Hanbantota	21. Ambalantota 22. Hanbantota 23. Tissamaharamaya 24. Tangalle
7. Puttalam	25. Kalpitiya 26. Vanathawilluwa 27. Puttalam 28. Mundalama 29. Arachchikattuwa 30. Chilaw 31. Mahawewa 32. Natthandiya 33. Wennappuwa
8. Jaffna	34. Chankanai 35. Chawakachchari 36. Jaffna 37. Point Peduru 38. Nallure 39. Kopay 40. Tellipalai

District	D.S. Division
	41. Velanai 42. Delf 43. Kayts 44. Sandelipai
9. Trincomalee	45. Kinnya 46. Eachchelanpattu 47. Thampalagamuwa 48. Town gravets 49. Muthur 50. Seruwila 51. Kuchchiweli
10. Amparai	52. Alaydiwembu 53. Akkaraipattu 54. Kalmunai 55. Karative 56. Lahugala 57. Thirukkivil 58. Sainthimaru 60. Potuvil 61. Navithanveli
11. Batticaloa	62. Korala Pattu North 63. Kathankudi 64. Eravur Pattu 65. Manmunai North 66. Manmunai West 67. Varachchenai 68. Manmunai Eruvilpattu 69. Porative pattu 70. Manmunai South 71. Manmunai Pattu (Araipattu) 72. Eraour Town
12. Killinochchi	73. Poonkerney 74. Kandavalai 75. Pachchilaipalli
13. Mannar	76. Musali 77. Nanandan 78. Manthai West 79. Mannar Town
14. Mullativu	80. Maritime Pattu

Annex V

1. Gross Domestic Products (GDP) 2004 by province	V-1
2. Coastal and Non coastal GDP by Province	V-2
3. GDP by Divisional Secretariat Division	V- 3
1. Ampara District	V-3.1
2. Batticaloa District	V-3.2
3. Trincomale District	V-3.3
4. Jaffna District	V-3.4
5. Mannar District	V-3.5
6. Mulative District	V-3.6
7. Kilinochchi District	V-3.7
8. Puttalam District	V-3.8
9. Galle District	V-3.9
10. Matara District	V-3.10
11. Hanbantota District	V-3.11
12. Colombo District	V-3.12
13. Gampaha District	V-3.13
14. Kalutara District	V-3.14
4. Coastal and Non coastal GDP by Province and District	
1. Western	V-4.1
2. Southern	V-4.2
3. North- Western	V-4.3
4. Eastern	V-4.4
5. Northern	V-4.5

GROSS DOMESTIC PRODUCT 2004 Constant 1996 price

	WP	NWP	SP	EP	NP	UVA	CP	SAB	NCP	National
1. Agriculture, Forest and Fishing	15,992.5	26,601.0	24,474.8	17,211.4	6,112.4	15,491.1	35,605.1	14,098.3	20,264.4	175,851.1
1.1 Agriculture	10,998.4	18,945.1	15,284.0	11,762.0	3,825.3	13,952.4	32,150.8	12,257.5	16,888.6	135,964.1
Tea	425.0	4.9	3,432.0	-	-	1,007.5	3,991.0	3,454.5	-	12,315.0
Rubber	911.4	95.4	687.0	-	-	50.5	253.4	1,372.4	-	3,370.0
Coconuts	3,085.1	6,895.7	480.0	76.0	66.7	255.1	415.0	460.3	479.0	12,212.9
Paddy	663.1	3,401.8	2,457.0	6,274.0	1,524.4	1,911.5	917.7	761.4	7,240.6	25,151.6
Other agriculture	5,813.8	8,547.3	8,228.0	5,412.0	2,234.2	10,737.1	26,537.9	6,143.2	9,201.0	82,914.6
1.2 Forestry and Firewood	1,237.5	3,238.9	1,715.0	1,695.0	679.1	1,446.6	3,435.3	1,830.8	1,831.5	17,109.5
1.3 Fishing	3,856.6	4,417.0	7,475.8	3,754.4	1,608.0	92.1	19.0	10.0	1,544.4	22,777.4
Coastal	3,798.6	4,329.0	7,454.4	3,682.4	1,562.0	-	-	-	-	20,826.4
Inland	58.0	88.0	21.4	72.0	46.0	92.1	19.0	10.0	1,544.4	1,951.0
2. Mining and Quarrying	832.0	2,506.9	993.8	577.6	788.3	3,657.9	98.0	7,129.1	361.4	16,944.9
3. Manufacture	108,774.4	26,731.7	10,179.0	2,236.9	2,401.3	1,835.1	2,123.1	4,493.3	946.3	159,721.0
4. Construction	42,847.4	3,258.0	4,812.0	2,053.0	1,219.1	4,211.8	3,555.4	3,265.9	3,109.7	68,332.3
5. Electricity Gas & Water	11,600.0	780.0	499.0	361.8	117.3	148.7	250.2	99.4	430.5	14,286.8
6. Transport, Storage and Communication	90,268.1	22,299.8	11,969.7	1,428.6	2,047.1	2,091.6	6,795.8	3,100.1	2,726.9	142,727.8
Road	66,492.4	16,581.9	9,899.7	1,207.0	1,614.9	1,662.4	5,169.3	2,886.0	1,480.4	106,994.0
Rail	8,473.2	1,284.0	1,140.8	111.5	131.8	363.6	1,406.5	-	1,150.0	14,061.5
Air	2,732.0	-	13.3	3.0	23.0	-	-	-	-	2,771.3
Water	1,014.0	39.6	232.0	57.8	233.2	-	21.4	-	-	1,598.0
Communication	11,556.5	4,394.4	683.9	49.3	44.2	65.6	198.7	214.1	96.5	17,303.0
7. Trade & tourism	160,275.1	24,059.5	16,930.7	5,902.4	3,941.2	1,594.5	3,108.5	1,864.2	1,364.1	219,040.3
Trade	156,828.0	23,417.9	14,998.1	5,809.1	3,899.9	1,522.6	2,868.5	1,797.9	1,268.6	212,410.6
Tourism	3,447.0	641.7	1,932.7	93.3	41.2	71.9	240.0	66.3	95.5	6,629.7
8. Banking, Insurance and Real Estate	54,734.5	7,410.6	2,957.0	1,232.6	296.3	1,830.2	2,196.3	2,196.3	1,098.1	73,952.0
9. Ownership & Dwelling	23,421.2	6,744.9	2,443.0	855.6	375.4	1,498.8	2,248.1	1,873.4	1,249.0	40,709.3
10. Public services	19,205.5	3,862.8	3,927.9	2,647.0	2,976.9	1,430.2	3,248.7	2,220.8	3,405.0	42,985.4
Defence & Admin	13,417.7	2,786.1	2,750.0	1,985.0	2,644.0	1,102.7	2,409.2	1,469.8	2,499.1	31,063.6
Health	1,047.9	154.6	157.0	52.0	76.8	58.1	100.5	91.7	178.6	1,917.1
Education	4,739.9	922.2	1,020.9	610.0	256.1	269.4	739.0	659.3	787.9	10,004.6
11. Private services	14,910.0	6,000.0	1,742.0	777.8	1,441.3	401.2	538.1	138.2	220.5	26,169.1
GDP	542,860.5	130,255.3	80,928.9	35,284.6	21,716.5	34,191.0	59,767.6	40,479.1	35,236.5	980,719.8
	0.6	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	1.0

COASTAL GDP BY PROVINCE 2004

	Western Province				North-Western		Southern		Eastern		Northern		Total	
	Western Province		North-Western		Southern		Eastern		Northern		Total			
	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal
1. Agriculture, Forest and Fishing	4,705.5	11,287.0	8,004.8	1,744.8	10,290.1	14,184.7	9,194.2	8,017.2	4,067.7	1,669.1	36,262.3	36,902.8		
1.1 Agriculture	716.9	10,181.5	2,919.8	1,388.9	2,582.5	12,701.5	4,635.8	7,126.2	2,161.1	1,383.8	13,016.0	32,782.0		
Tea	0.7	424.3	-	-	41.3	3,390.7	-	-	-	-	41.9	3,815.1		
Rubber	36.3	875.1	-	-	45.6	641.4	-	-	-	-	81.9	1,516.5		
Coconuts	217.2	2,867.9	633.0	301.1	140.6	339.4	51.4	24.6	49.1	15.7	1,091.2	3,548.8		
Paddy	29.7	633.4	266.1	126.6	616.0	1,841.0	2,351.5	3,922.5	821.8	688.7	4,085.0	7,212.2		
Other agriculture	433.0	5,380.7	2,020.7	961.2	1,739.0	6,489.0	2,232.9	3,179.1	1,290.3	679.3	7,715.9	16,689.4		
1.2 Forestry and Firewood	189.0	1,048.5	748.2	355.9	251.5	1,463.5	827.8	867.2	324.8	265.8	2,341.2	4,000.9		
1.3 Fishing	3,799.7	56.9	4,336.9	-	7,456.1	19.7	3,730.6	23.8	1,581.8	19.5	20,905.1	119.9		
Coastal	3,798.6	-	4,329.0	-	7,454.4	-	3,682.4	-	1,562.0	-	20,826.4	-		
Inland	1.1	56.9	7.9	-	1.7	19.7	48.2	23.8	19.8	19.5	78.7	119.9		
2. Mining and Quarrying	575.0	257.0	2,021.0	110.0	882.9	110.9	473.6	104.0	394.6	128.4	4,347.1	710.2		
3. Manufacture	49,182.5	59,591.8	23,765.7	866.0	6,733.3	3,445.7	2,019.0	217.9	1,848.4	191.6	83,548.9	64,313.1		
4. Construction	13,306.1	29,541.3	926.0	537.2	1,510.8	3,301.2	882.6	1,170.4	563.5	524.8	17,189.0	35,075.0		
5. Electricity, Gas & Water	8,820.1	2,779.5	380.4	13.9	392.4	106.6	274.8	87.0	69.9	32.2	9,937.4	3,019.1		
6. Transports, Storage and Communication	46,994.3	43,273.8	7,869.6	34.4	6,517.9	5,451.8	1,018.0	410.5	1,441.0	372.1	63,840.9	49,542.7		
Road	33,910.9	32,581.5	5,770.0	14.1	4,836.5	5,063.2	848.8	358.2	1,099.9	307.4	46,466.1	38,324.3		
Rail	6,078.7	2,394.5	148.1	-	1,140.8	-	85.5	25.9	63.6	48.6	7,516.8	2,469.1		
Air	2,732.0	-	-	-	13.3	-	3.0	-	23.0	-	2,771.3	-		
Water	1,014.0	-	24.0	15.6	232.0	-	49.1	8.7	233.2	-	1,552.3	24.3		
Communication	3,258.7	8,297.8	1,927.5	4.7	295.2	388.7	31.5	17.7	21.3	16.1	5,534.3	8,725.0		
7. Trade & tourism	92,726.3	67,546.7	12,160.5	1,020.4	14,254.6	2,676.2	5,538.2	364.2	3,111.1	124.6	127,792.6	71,732.1		
Trade	89,577.3	67,250.7	11,765.2	1,005.7	12,626.9	2,371.2	5,449.1	360.0	3,070.3	124.2	122,488.8	71,111.8		
Tourism	3,151.0	296.0	395.3	14.7	1,627.7	305.0	89.1	4.2	40.8	0.4	5,303.8	620.3		
8. Banking, Insurance and Real Estate	31,548.1	23,186.4	1,901.9	1,832.2	2,500.4	456.6	958.6	274.0	239.8	43.0	37,148.8	25,792.3		
9. Ownership& Dwelling	10,730.2	12,691.0	2,161.2	1,238.8	1,148.8	1,294.2	723.4	132.2	279.5	49.4	15,043.1	15,405.5		
10. Public services	7,060.1	12,145.4	489.1	71.4	1,328.8	2,599.1	1,667.6	979.4	1,886.7	768.7	12,432.3	16,563.9		
Defence & Admin	4,793.5	8,624.2	323.0	47.1	900.5	1,849.5	1,189.5	795.5	1,666.1	700.8	8,872.6	12,017.1		
Health	655.8	392.1	47.4	6.9	82.7	74.3	38.1	13.9	56.1	13.1	880.1	500.3		
Education	1,610.8	3,129.1	118.6	17.3	345.7	675.2	440.0	170.0	164.5	54.8	2,679.6	4,046.5		
11. Private services	13,184.7	1,726.0	3,060.0	1,440.0	1,513.1	228.9	557.8	220.0	1,140.5	111.2	19,456.1	3,726.0		
GDP	278,834.9	264,025.9	62,740.1	8,909.2	47,073.2	33,855.7	23,307.7	11,976.8	15,042.7	4,015.1	426,998.6	372,782.8		
		542,860.7		71,649.3		80,928.9		35,284.6		9,057.9				

AMPARA DISTRICT - GROSS DOMESTIC PRODUCT 2004
Constant price 1996

	1. Addaichenai	2. Akkaraipattu	3. Amparai	4. Damana	5. Dehatukandiy	6. Irakkamam	7. Kaimunai-Mu	8. Kaimunai-Ta	9. Karaitive	10. Labugala	11. Maha oya	12. Navithanveli	13. Nintavur	14. Padayatalawa	15. Petuvil	16. Samanthurai	17. Sainthamaru	18. Thirukkovil	19. Uthana	Coastal	Non Coastal	District
1. Agriculture, Forest and Fishing	457.0	135.9	1354.0	857.5	1247.4	228.2	359.7	435.6	151.1	161.2	519.4	143.0	146.7	401.1	288.4	296.0	193.3	193.2	289.6	7568.8	5193.2	12762.0
1.1 Agriculture	15.0	124.6	1323.9	814.8	1185.7	170.1	108.8	85.8	54.8	122.4	332.6	130.6	137.4	368.2	147.6	270.5	165.2	111.4	259.4	5669.3	4725.2	10394.4
Tea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coconuts	0.2	0.9	1.9	1.4	0.0	1.6	1.2	0.7	1.0	0.6	0.8	0.7	0.4	1.2	0.8	0.0	0.2	0.3	0.0	13.9	7.0	20.9
Paddy	0.7	103.4	1263.3	592.1	582.6	62.4	6.1	34.8	13.5	37.2	53.2	71.8	57.9	48.4	45.3	203.3	112.7	76.0	87.5	3364.5	2892.8	6257.3
Other agriculture	14.1	20.4	58.8	221.3	603.0	106.0	101.5	50.3	40.3	84.6	278.6	58.0	79.1	318.6	101.5	67.2	52.3	35.2	171.8	2290.9	1825.4	4116.3
1.2 Forestry and Firewood	23.4	9.9	26.2	41.9	61.7	57.3	15.3	8.5	6.5	35.3	185.2	11.0	9.2	32.9	13.7	25.6	27.5	28.4	28.6	619.6	459.4	1079.0
1.3 Fishing	418.6	1.4	3.9	0.8	0.0	0.8	235.6	341.4	89.8	3.4	1.6	1.4	0.0	0.0	127.1	0.0	0.7	53.4	1.6	1279.9	8.7	1288.6
Coastal	414.5	0.0	0.0	0.0	0.0	0.0	233.6	341.4	89.8	0.0	0.0	0.0	0.0	0.0	125.8	0.0	0.0	52.0	0.0	1257.0	0.0	1257.0
Inland	4.1	1.4	3.9	0.8	0.0	0.8	2.1	0.0	0.0	3.4	1.6	1.4	0.0	0.0	1.4	0.0	0.7	1.4	1.6	22.9	8.7	31.6
2. Mining and Quarrying	7.8	3.5	6.7	9.4	12.6	2.4	2.4	3.4	3.2	38.6	11.2	13.5	7.8	18.9	27.6	3.6	0.4	16.9	7.1	190.1	72.0	262.1
3. Manufacture	4.8	214.8	51.2	2.5	13.9	15.5	98.1	776.6	110.6	3.4	2.9	4.7	22.7	27.8	27.3	26.3	13.3	4.9	0.7	1421.4	140.9	1562.3
4. Construction	9.2	21.5	64.0	78.8	54.2	14.8	55.4	40.0	27.7	46.2	103.5	24.6	21.5	93.6	24.6	64.0	24.6	15.4	69.0	783.8	541.9	1325.7
5. Electricity, Gas & Water	7.1	13.2	3.7	4.3	5.6	0.8	12.1	22.0	6.9	1.2	1.9	3.3	13.9	4.2	3.2	1.9	3.7	8.6	2.5	117.7	25.0	142.7
6. Transport, Storage and Communication	166.5	49.6	48.4	45.0	59.8	10.4	82.9	3.6	8.1	3.9	10.0	4.7	34.7	25.7	26.3	31.8	38.0	23.6	47.2	673.2	278.4	951.5
Road	165.9	48.1	37.8	44.4	57.9	10.1	81.9	2.9	7.7	2.3	8.1	3.8	33.9	22.9	18.5	31.1	37.6	23.0	46.6	637.8	259.0	896.8
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	14.5	8.7	23.2
Communication	0.6	1.5	1.9	0.5	1.9	0.4	1.0	0.8	0.4	1.6	2.0	0.9	0.9	2.8	2.0	0.7	0.4	0.6	0.6	20.9	10.7	31.6
7. Trade & tourism	76.0	196.6	32.3	12.5	14.6	6.2	215.6	120.6	76.0	203.1	16.6	57.0	101.6	18.7	219.8	6.8	101.6	57.0	11.4	1532.5	109.2	1641.6
Trade	76.0	196.6	30.0	12.0	8.0	14.0	215.6	120.6	76.0	203.1	15.0	57.0	101.6	10.0	215.6	5.0	101.6	57.0	11.0	1514.5	2767.5	4282.0
Tourism	0.0	0.0	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.2	0.0	0.0	0.0	0.0	8.4	4.2	12.6
8. Banking, Insurance and Realstate	0.0	41.8	22.1	13.9	22.1	0.0	51.2	41.8	0.0	41.8	13.9	0.0	0.0	22.1	51.2	13.9	0.0	0.0	4.1	335.9	112.1	447.0
9. Ownership & Dwelling	14.9	25.3	9.6	7.9	11.3	2.5	31.0	21.2	11.7	6.3	8.7	14.0	19.3	6.8	15.4	5.9	13.9	56.1	11.5	281.7	64.2	345.9
10. Public services	51.7	60.4	140.6	98.5	81.8	30.4	117.4	51.1	25.0	33.2	65.9	33.3	36.1	27.5	47.9	97.5	35.3	42.9	109.1	1076.7	651.4	1728.0
Defence & Admn	32.9	39.6	117.5	79.5	54.4	26.4	95.1	27.1	17.5	28.6	59.5	24.0	23.0	14.2	40.1	73.0	21.2	30.9	84.3	804.6	508.9	1313.5
Health	1.2	1.6	1.8	1.1	3.1	0.2	3.0	8.4	0.4	0.4	0.6	0.1	0.7	2.1	0.7	1.4	0.8	1.2	0.8	28.7	11.1	39.8
Education	17.6	19.3	21.4	17.9	24.4	3.8	19.3	15.6	7.1	4.2	5.8	9.1	12.4	11.1	7.2	23.1	13.4	10.8	23.9	243.4	131.4	374.8
11. Private services	21.7	20.5	14.1	11.3	15.3	3.7	26.4	17.4	9.7	4.6	5.1	11.7	14.8	6.2	10.5	14.6	11.7	8.9	14.8	228.0	85.0	313.0
GDP	816.7	783.1	1746.8	1141.6	1538.6	314.9	1052.2	1533.2	430.0	543.5	759.3	309.8	419.0	652.6	742.4	562.4	435.8	427.7	567.0	14209.5	7273.2	21482.7

BATTICALOA DISTRICT - GROSS DOMESTIC PRODUCT 2004

Constant price 1996

	1.Arayampattu	2.Chenkalady	3.Eravur Town	4.Kalavanchikudy	5.Kattankudy	6.Mannar North	7.Oddamavady	8.Paddipalai	9.Vakarai	10.Valachena	11.Vavuniattu	12.Vellavelly	13.Kirari	14.Koralapattu-central	Coastal	Non Coastal	District GDP
1. Agriculture, Forest and Fishing	71.8	216.5	529.7	166.2	470.3	454.5	251.5	176.0	272.7	472.1	296.2	33.5	572.2	160.5	3159.4	968.5	4128.0
1.1 Agriculture	64.1	199.2	37.7	155.9	142.5	439.5	216.8	155.8	32.1	227.2	35.2	18.1	523.5	127.1	1507.4	851.8	2359.1
Tea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coconuts	3.2	0.0	0.0	0.1	0.1	0.1	0.5	1.3	0.0	0.0	0.0	0.1	2.2	0.0	4.9	2.7	7.6
Paddy	5.8	135.8	1.6	137.1	106.0	239.4	109.3	140.3	8.0	225.1	21.0	8.0	291.9	35.9	1028.0	437.0	1465.0
Other agriculture	55.2	63.4	36.1	18.7	36.5	200.1	107.0	14.2	24.1	11.3	14.2	9.9	229.5	75.6	474.5	412.0	886.6
1.2 Forestry and Firewood	7.6	15.2	6.9	9.6	3.0	14.2	34.7	18.8	58.0	233.6	251.5	13.2	42.2	31.2	167.4	108.1	275.5
1.3 Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	192.5	233.6	251.5	2.2	6.5	2.2	1484.7	8.6	1493.4
Coastal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	179.7	233.6	251.5	0.0	0.0	0.0	1473.2	0.0	1473.2
Inland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.2	6.5	2.2	11.5	8.6	20.2
2. Mining and Quarrying	8.5	9.8	5.3	15.2	2.0	10.8	9.0	6.3	62.5	16.0	10.2	10.8	4.0	7.1	157.3	20.0	177.3
3. Manufacture	1.6	1.6	1.2	82.2	107.5	6.7	61.0	4.0	5.1	98.1	5.6	20.7	2.1	1.8	334.4	85.0	399.4
4. Construction	17.6	26.4	38.1	23.5	55.7	20.5	34.7	17.6	20.5	23.5	14.7	11.7	60.8	95.5	269.8	191.0	460.7
5. Electricity Gas & Water	0.3	24.4	0.5	20.8	23.0	5.3	34.5	0.8	0.8	0.4	0.8	3.4	8.1	13.3	80.5	56.0	136.5
6. Transport, Storage and Communication	4.8	35.5	43.3	6.0	16.3	10.5	14.3	2.2	3.5	21.5	4.0	11.8	5.1	4.0	159.3	23.4	182.7
Road	4.5	34.9	18.5	5.1	14.2	9.7	14.2	1.7	2.8	0.9	3.1	10.9	4.4	3.1	106.5	21.7	128.1
Rail	0.0	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0	19.4	0.0	0.0	0.0	0.0	36.6	0.0	36.6
Air	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	5.8
Communication	0.2	0.6	1.8	0.8	2.2	0.7	0.2	0.5	0.7	1.1	1.0	0.8	0.7	0.8	10.4	1.7	12.2
7. Trade & tourism	19.3	109.6	77.0	19.3	188.7	79.3	14.5	38.5	70.8	74.6	64.4	19.3	82.2	48.3	760.6	145.0	905.6
Trade	19.3	109.6	77.0	19.3	186.6	64.4	14.5	38.5	64.4	38.5	64.4	19.3	82.2	48.3	701.2	145.0	846.2
Tourism	0.0	0.0	0.0	0.0	2.1	14.8	0.0	0.0	6.4	36.1	0.0	0.0	0.0	0.0	59.4	0.0	59.4
8. Banking, Insurance and Realstate	28.3	28.3	101.5	28.3	101.5	28.3	4.6	56.6	28.3	64.9	28.3	36.6	5.9	4.6	531.1	15.0	546.1
9. Ownerships & Dwelling	20.7	42.6	21.0	38.7	34.0	19.8	13.9	16.5	13.8	18.1	16.5	31.5	15.6	14.5	273.2	44.0	317.2
10. Public services	32.6	45.1	38.3	47.3	94.9	34.1	25.7	113.2	23.5	29.4	25.9	37.6	28.2	43.1	521.8	97.1	619.0
Defence & Admin	21.9	19.2	26.5	21.9	68.5	23.8	15.2	102.8	15.9	20.9	16.6	22.9	20.2	34.4	360.9	72.7	433.6
Health	1.0	0.8	0.4	1.8	2.4	0.4	0.9	0.1	0.1	0.1	0.3	0.3	0.1	0.1	7.6	1.1	8.7
Education	9.7	25.2	11.5	23.6	24.0	9.9	6.7	10.2	7.4	8.4	9.0	14.5	7.9	8.7	153.4	23.2	176.6
Private services	14.7	36.2	17.1	27.8	28.7	14.8	25.2	12.3	10.0	13.8	15.3	23.1	15.7	18.1	213.8	59.0	272.8
GDP	220.1	575.9	873.2	475.2	1122.8	684.4	489.0	443.9	511.5	832.3	481.8	239.9	799.8	410.7	6461.2	1684.0	8145.2

TRINCOMALEE DISTRICT - GROSS DOMESTIC PRODUCT

	1.Gomarakadawala	2.Kantalai	3.Kinniya	4.Kuchchavelly	5.Morawewa	6.Padavi srupura	7.Serwila	8.Thampalakamam	9.Muttur	10.Verugal	11.Town Graves	Coastal	Non Coastal	District GDP
1. Agriculture,Forest and Fishing	308.7	713.7	459.1	466.1	458.9	374.1	267.8	428.4	566.5	416.2	765.5	3,369.7	1,855.4	5,225.1
1.1 Agriculture	280.2	665.0	228.8	448.6	304.0	300.2	205.0	202.4	239.2	205.7	395.1	1,925.0	1,549.3	3,474.3
Tea	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coconuts	-	4.0	2.3	0.3	-	10.9	0.7	28.4	5.3	2.3	0.4	39.7	14.9	54.6
Paddy	136.7	273.4	30.9	420.1	84.4	98.3	73.3	55.0	84.9	72.5	27.4	764.2	592.7	1,357.0
Other agriculture	143.5	387.6	195.7	28.1	219.6	191.0	131.0	119.0	149.0	131.0	367.3	1,121.1	941.7	2,062.7
1.2 Forestry and Firewood	25.0	47.3	100.2	14.6	153.5	73.9	61.3	82.2	82.2	120.0	11.1	471.6	299.6	771.3
1.3 Fishing	3.6	1.4	130.1	2.9	1.4	-	1.4	143.7	245.1	90.5	359.3	973.1	6.5	979.6
Coastal	-	-	125.8	-	-	-	-	143.7	233.6	89.8	359.3	952.2	-	952.2
Inland	3.6	1.4	4.3	2.9	1.4	-	1.4	-	11.5	0.7	-	20.9	6.5	27.4
2. Mining and Quarrying	2.7	2.7	13.8	63.5	3.6	2.9	6.1	4.0	28.0	9.4	66.3	191.1	12.0	203.1
3. Manufacture	0.2	10.6	7.9	3.0	0.8	0.3	103.5	3.5	2.1	0.7	282.7	403.4	12.0	415.4
4. Construction	114.9	93.0	23.5	14.7	82.0	147.7	85.0	14.7	46.9	17.6	99.7	302.0	437.6	739.6
5. Electricity, Gas & Water	0.4	4.8	22.3	9.6	0.2	0.6	10.8	13.6	13.1	2.8	26.8	99.1	6.0	105.1
6. Transports, Storage and Communication	3.2	63.8	76.0	13.8	9.9	31.8	32.4	30.0	51.4	21.8	191.2	416.7	108.8	525.5
Road	2.3	36.8	71.9	13.3	8.5	30.0	21.9	29.1	34.8	21.4	124.5	316.9	77.5	394.4
Rail	-	25.9	-	-	-	-	-	-	-	-	49.0	49.0	25.9	74.9
Air	-	-	-	-	-	-	-	-	-	-	3.0	3.0	-	3.0
Water	-	-	3.1	-	-	-	8.3	-	14.5	-	11.6	37.5	-	37.5
Communication	0.9	1.1	1.0	0.5	1.4	1.9	2.3	0.8	2.2	0.5	3.1	10.3	5.3	15.6
7. Trade & tourism	32.1	25.1	526.7	267.4	25.4	27.4	552.6	211.9	713.3	173.4	907.7	3,352.8	110.0	3,462.8
Trade	32.1	25.1	526.7	250.4	25.4	27.4	552.6	211.9	713.3	173.4	899.3	3,327.4	110.0	3,437.4
Tourism	-	-	-	17.0	-	-	-	-	-	-	8.5	25.5	-	25.5
8. Banking, Insurance and Real estate	27.9	45.6	36.6	-	27.9	45.6	44.9	-	36.6	-	81.5	199.6	147.0	346.5
9. Ownership & Dwelling	2.8	14.8	41.3	17.9	2.3	4.2	22.8	20.4	41.1	13.1	64.5	221.2	24.0	245.2
10. Public services	44.6	75.0	73.9	32.8	38.0	73.4	116.1	32.8	137.0	34.0	184.8	611.3	230.9	842.3
Defence & Admin	41.2	68.8	47.5	22.9	35.4	68.4	102.9	23.3	106.3	26.8	119.0	448.6	213.9	662.5
Health	0.1	1.1	0.6	0.3	0.3	0.1	1.1	0.3	0.9	0.3	8.7	12.1	1.6	13.8
Education	3.2	5.1	25.8	9.7	2.3	4.8	12.0	9.2	29.9	6.9	57.1	150.6	15.4	166.0
11. Private services	7.4	49.1	35.9	21.2	7.2	12.3	17.7	15.7	30.8	9.8	55.1	186.2	76.0	262.2
GDP	544.9	1,098.2	1,317.0	909.9	656.3	720.2	1,259.7	774.7	1,667.0	698.8	2,725.8	9,353.0	3,019.6	12,372.7

JAFFNA DISTRICT - GROSS DOMESTIC PRODUCT 2004 Constant price 1996

	Islands North Kays	Valikamam West Chankana	Valikamam South-West Sandalp	Valikamam North	Valikamam East Kopay	Vadamarudchi North Point Peduru	Thennarudchi Chavakach	Nallur	Jaffna	Island South Velanai	Delft	District Coastal GDP	Valikamam South Uduvil	Vadana S/ West	Vadamarac East	Non Coastal	District
1. Agriculture, Forest and Fishing	14.0	61.8	72.5	800.2	21.4	19.6	155.5	37.4	13.8	37.6	19.1	1,253.0	28.9	97.4	18.7	145.0	1,398.0
1.1 Agriculture	9.7	60.0	70.1	16.8	13.6	15.7	148.0	35.0	4.9	34.3	6.2	414.5	22.9	94.6	11.4	129.0	543.5
Tea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coconuts	-	0.6	13.8	-	-	-	-	6.8	-	11.5	1.8	34.5	3.0	-	-	3.0	37.5
Paddy	-	36.7	39.2	-	8.3	5.2	142.5	10.6	0.3	10.2	1.2	254.2	8.7	66.1	-	74.8	329.0
Other agriculture	9.7	22.6	17.1	16.8	5.2	10.6	5.5	17.6	4.6	12.7	3.2	125.7	12.9	27.7	10.6	51.3	177.0
1.2 Forestry and Firewood	3.7	1.6	2.1	2.2	6.9	3.4	6.6	2.1	7.9	2.9	11.4	50.9	5.5	2.6	6.7	14.7	65.6
1.3 Fishing	0.5	0.2	0.3	781.3	0.9	0.4	0.9	0.3	1.0	0.4	1.5	787.6	0.5	0.2	0.6	1.3	788.9
Coastal	-	-	-	781.0	-	-	-	-	-	-	-	781.0	-	-	-	-	781.0
Inland	0.5	0.2	0.3	0.3	0.9	0.4	0.9	0.3	1.0	0.4	1.5	6.6	0.5	0.2	0.6	1.3	7.9
2. Mining and Quarrying	3.2	8.6	2.2	5.6	1.8	7.4	42.2	9.2	3.9	3.2	3.9	91.0	13.5	6.8	8.7	29.0	120.0
3. Manufacture	-	97.1	23.2	-	63.8	-	558.5	287.2	58.6	216.4	-	1,304.8	-	57.1	38.1	95.2	1,400.0
4. Construction	12.7	23.7	27.2	-	46.2	5.8	89.5	21.5	9.8	39.5	9.8	285.6	57.4	88.4	97.0	242.8	528.3
5. Electricity, Gas & Water	0.1	5.1	6.8	2.0	11.9	7.7	4.0	4.9	7.2	0.8	0.1	50.6	7.8	15.4	1.2	24.4	75.0
6. Transports, Storage and Communication	5.6	26.4	55.7	202.2	107.1	121.9	141.9	252.3	124.7	26.7	0.5	1,064.9	37.8	67.2	59.7	164.7	1,229.6
Road	5.6	26.9	56.7	-	100.3	124.2	144.5	257.0	100.7	27.2	0.5	843.8	29.9	66.9	59.5	156.2	1,000.0
Rail	-	-	-	-	6.5	-	-	-	19.6	-	-	26.1	6.3	-	-	6.3	32.4
Air	-	-	-	23.0	-	-	-	-	-	-	-	23.0	-	-	-	-	23.0
Water	-	-	-	163.0	-	-	-	-	-	-	-	163.0	-	-	-	-	163.0
Communication	-	-	-	-	2.3	-	-	-	6.8	-	-	9.0	2.2	-	-	2.2	11.2
7. Trade & tourism	159.0	117.6	93.6	141.5	132.8	213.4	222.1	189.4	331.8	117.6	50.1	1,768.9	7.6	15.4	12.0	35.0	1,803.9
Trade	159.0	117.6	93.6	141.5	132.8	213.4	222.1	189.4	311.4	117.6	50.1	1,748.5	7.5	15.4	12.0	35.0	1,783.5
Tourism	-	-	-	-	-	-	-	-	20.4	-	-	20.4	-	-	-	-	20.4
8. Banking, Insurance and Real Estate	13.3	-	-	-	13.3	39.9	-	26.6	79.8	-	-	172.9	-	-	-	-	172.9
9. Ownership & Dwelling	5.4	30.7	16.8	8.3	25.3	17.5	46.8	22.4	18.0	5.9	3.5	200.6	4.6	3.9	0.9	9.4	210.0
10. Public services	36.4	193.4	112.5	49.8	166.4	119.6	301.9	155.0	144.2	41.0	23.0	1,343.2	151.8	129.7	29.0	310.5	1,653.7
Defence & Admin	32.4	182.8	100.1	49.2	150.7	104.2	278.7	133.7	107.3	35.0	21.1	1,195.3	138.1	117.7	27.1	282.9	1,478.2
Health	1.4	2.5	1.2	0.6	2.3	4.6	1.6	1.4	25.5	1.3	0.3	42.7	1.5	0.3	2.4	4.2	46.9
Education	2.6	8.1	11.2	-	13.3	10.8	21.6	19.9	11.4	4.7	1.6	105.1	12.0	11.4	-	23.5	128.6
11. Private services	22.2	125.2	68.5	33.7	103.2	71.4	190.8	91.5	73.5	23.9	14.4	818.3	39.9	34.0	7.8	81.7	900.0
GDP	271.8	689.4	478.9	1,243.4	693.2	624.2	1,753.2	1,097.4	865.2	512.5	124.5	8,353.8	349.2	515.3	273.1	1,137.7	9,491.4

MANNAR - GROSS DOMESTIC PRODUCT 2004

	Mannar Town	Manthai West	Nanaddam	Musalai	Coastal GDP	Madhu Non Coastal	District GDP
1. Agriculture, Forest and Fishing	835.8	73.6	77.2	91.9	1,078.5	110.6	1,189.2
1.1 Agriculture	122.0	37.6	46.2	74.7	280.5	73.1	353.6
Tea	-	-	-	-	-	-	-
Rubber	-	-	-	-	-	-	-
Coconuts	1.7	0.0	0.1	0.0	1.9	0.1	2.0
Paddy	4.2	2.6	5.5	1.7	14.0	5.5	19.5
Other agriculture	116.0	35.0	40.7	73.0	264.6	67.5	332.1
1.2 Forestry and Firewood	10.1	33.5	28.8	16.1	88.5	35.5	124.0
1.3 Fishing	703.7	2.5	2.2	1.2	709.6	2.0	711.6
Coastal	702.9	-	-	-	702.9	-	702.9
Inland	0.8	2.5	2.2	1.2	6.7	2.0	8.7
2. Mining and Quarrying	83.5	15.7	13.4	14.1	126.7	33.7	160.4
3. Manufacture	58.8	89.7	133.5	79.3	361.3	36.7	398.0
4. Construction	60.5	38.7	24.2	7.4	130.8	84.5	215.3
5. Electricity, Gas & Water	5.8	4.2	3.2	2.0	15.2	0.2	15.4
6. Transports, Storage and Communication	220.3	4.6	62.3	17.0	304.2	25.7	329.9
Road	123.8	4.6	62.3	17.0	207.6	12.4	220.0
Rail	19.6	-	-	-	19.6	9.9	29.5
Air	-	-	-	-	-	-	-
Water	70.2	-	-	-	70.2	-	70.2
Communication	6.8	-	-	-	6.8	3.4	10.2
7. Trade & tourism	296.9	145.9	121.9	161.1	725.9	70.4	796.3
Trade	276.5	145.9	121.9	161.1	705.5	70.0	775.5
Tourism	20.4	-	-	-	20.4	0.4	20.8
8. Banking, Insurance and Realstate	13.4	-	-	-	13.4	8.6	22.0
9. Ownership & Dwelling	31.7	6.7	6.7	1.4	46.5	3.5	50.0
10. Public services	220.3	45.5	45.6	10.0	321.5	27.0	348.5
Defence & Admin	188.9	40.1	39.7	8.4	277.1	23.4	300.5
Health	5.4	1.1	1.1	-	7.6	0.5	8.1
Education	25.9	4.4	4.8	1.7	36.8	3.1	39.9
11. Private services	129.3	27.4	27.2	5.7	189.6	10.4	200.0
GDP	1,956.2	452.1	515.1	390.1	3,313.5	411.4	3,724.9

MULLATIVE - GROSS DOMESTIC PRODUCT 2004

	Mari pattu	Thunukkai	Manthai East	Puthukudiyiruppu	Oddusudan	Coastal GDP	Non Coastal GDP	District GDP
1. Agriculture, Forest and Fishing	301.4	205.7	127.7	245.1	287.5	301.4	866.0	1,167.4
1.1 Agriculture	203.8	157.6	95.4	206.5	256.3	203.8	715.9	919.7
Tea	-	-	-	-	-	-	-	-
Rubber	-	-	-	-	-	-	-	-
Coconuts	0.8	0.7	0.7	0.3	0.7	0.8	2.4	3.2
Paddy	95.2	104.6	16.9	141.1	175.2	95.2	437.8	533.0
Other agriculture	107.9	52.3	77.8	65.1	80.4	107.9	275.6	383.5
1.2 Forestry and Firewood	17.4	43.4	29.2	34.8	28.2	17.4	135.6	153.0
1.3 Fishing	80.1	4.7	3.1	3.7	3.0	80.1	14.6	94.7
Coastal	78.1	-	-	-	-	78.1	-	78.1
Inland	2.0	4.7	3.1	3.7	3.0	2.0	14.6	16.6
2. Mining and Quarrying	55.7	4.4	3.8	5.2	6.0	55.7	19.5	75.2
3. Manufacture	152.6	3.2	6.7	2.6	1.0	152.6	13.4	166.0
4. Construction	24.9	19.6	17.8	43.3	6.9	24.9	87.6	112.5
5. Electricity, Gas & Water	4.0	2.0	3.0	1.0	2.0	4.0	8.0	12.0
6. Transports, Storage and Communication	14.1	39.7	25.3	16.5	67.8	14.1	149.4	163.5
Road	14.1	39.7	5.6	16.5	44.2	14.1	106.0	120.1
Rail	-	-	14.7	-	17.7	-	32.4	32.4
Air	-	-	-	-	-	-	-	-
Water	-	-	-	-	-	-	-	-
Communication	-	-	5.0	-	6.0	-	11.0	11.0
7. Trade & tourism	167.7	1.1	2.4	2.5	4.0	167.7	10.0	177.7
Trade	167.7	1.1	2.4	2.5	4.0	167.7	10.0	177.7
Tourism	-	-	-	-	-	-	-	-
8. Banking, Insurance and Real estate	13.4	-	10.2	-	20.4	13.4	30.6	44.0
9. Ownership & Dwelling	12.8	9.2	2.9	9.0	4.1	12.8	25.2	38.0
10. Public services	87.5	92.9	32.4	97.1	45.2	87.5	267.5	355.0
Defence & Admn	76.1	90.6	28.9	88.0	40.5	76.1	248.0	324.1
Health	2.3	2.3	1.0	1.3	-	2.3	4.6	6.9
Education	9.1	-	2.5	7.7	4.7	9.1	14.9	24.0
11. Private services	52.1	0.6	0.2	0.6	0.3	52.1	1.6	53.7
GDP	886.0	378.5	232.5	422.8	445.1	886.0	1,478.9	2,364.9

KILLINOCHCHI - GROSS DOMESTIC PRODUCT 2004

Constant price 1996

	Pachchilaipalli	Kandavalai	Poonkerny	Coastal GDP	Karachai Non Coastal	District
1. Agriculture, Forest and Fishing	299.6	689.1	446.1	1,434.8	547.4	1,982.2
1.1 Agriculture	221.0	656.0	385.3	1,262.3	465.8	1,728.1
Tea	-	-	-	-	-	-
Rubber	-	-	-	-	-	-
Coconuts	5.0	6.1	0.9	12.0	10.1	22.1
Paddy	46.1	247.4	164.9	458.4	170.6	629.0
Other agriculture	169.9	402.5	219.5	792.0	285.0	1,077.0
1.2 Forestry and Firewood	76.5	32.3	59.2	168.0	80.0	248.0
1.3 Fishing	2.0	0.9	1.6	4.5	1.6	6.1
Coastal	-	-	-	-	-	-
Inland	2.0	0.9	1.6	4.5	1.6	6.1
2. Mining and Quarrying	7.6	12.7	100.9	121.2	46.2	167.4
3. Manufacture	1.5	23.6	4.6	29.7	46.3	76.0
4. Construction	13.6	27.8	81.0	122.3	110.0	232.3
5. Electricity, Gas & Water	-	0.0	-	0.0	0.0	0.1
6. Transports, Storage and Communication	12.5	29.4	15.9	57.9	33.3	91.2
Road	12.5	18.8	3.1	34.4	32.8	67.2
Rail	-	8.2	9.8	17.9	-	17.9
Air	-	-	-	-	-	-
Water	-	-	-	-	-	-
Communication	-	2.5	3.0	5.5	0.5	6.0
7. Trade & tourism	61.0	150.3	237.4	448.6	9.2	457.8
Trade	61.0	150.3	237.4	448.6	9.2	457.8
Tourism	-	-	-	-	-	-
8. Banking, Insurance and Realstate	-	26.8	13.4	40.2	3.8	44.0
9. Ownership & Dwelling	3.3	9.0	7.4	19.7	11.2	30.9
10. Public services	23.5	60.0	51.0	134.6	163.6	298.2
Defence & Admn	19.6	54.0	44.1	117.6	146.5	264.1
Health	0.9	1.2	1.4	3.5	3.8	7.3
Education	3.0	4.9	5.6	13.5	13.3	26.8
11. Private services	13.4	37.0	30.2	80.5	17.5	98.0
GDP	435.9	1,065.7	987.8	2,489.5	988.6	3,478.0

PUTTALAM DISTRICT **GGROSS DOMESTIC PRODUCT BY DIVISIONAL SECRETARIET DIVISIONS**

	Vanathawilluwa	Puttalam	Kapitiya	Mundalama	Archikattuwa	Chilaw	Mahawewa	Nathandiya	Wennapuwa	Coastal GDP	Nawagath	Anamadawa	Pallama	Makubukra	Karuweligasw	Madsampe	Dankotuwa	Non Coastal GDP	District
1. Agriculture, Forest and Fishing	706.3	349.9	2249.7	483.5	755.2	918.6	1002.1	730.5	809.1	8004.8	96.3	279.8	202.6	277.6	150.9	339.4	398.3	1744.8	9749.7
1.1 Agriculture	519.7	146.5	2294	201.9	359.0	280.7	441.2	417.4	323.9	2919.8	73.5	220.2	164.5	246.6	114.5	269.5	300.1	1388.9	4308.7
Tea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coconuts	1.5	3.7	7.5	3.8	3.5	129.9	162.4	159.6	161.2	633.0	3.4	4.3	10.8	3.6	2.0	137.8	139.2	301.1	934.1
Paddy	23.9	19.1	0.0	52.6	71.7	25.5	33.5	38.2	1.6	266.1	21.8	34.3	7.4	17.2	26.9	11.1	7.9	126.6	392.6
Other agriculture	494.3	123.7	221.9	145.5	283.9	125.3	245.4	219.6	161.1	2020.7	48.3	181.6	146.3	225.8	85.6	120.6	153.0	961.2	2982.0
1.2 Forestry and Firewood	25.8	98.8	107.8	81.5	63.4	88.6	77.6	90.5	114.2	748.2	22.8	59.5	38.1	31.0	36.4	69.8	98.2	355.9	1104.1
1.3 Fishing	160.8	104.5	1912.4	200.2	332.7	549.3	483.3	222.6	371.0	4336.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4336.9
Coastal	160.8	101.3	1912.4	196.1	332.7	549.3	482.8	222.6	371.0	4329.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4329.0
Inland	0.1	3.2	0.0	4.1	0.0	0.0	0.5	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
2. Mining and Quarrying	533.8	147.4	211	0.0	0.0	1027.9	0.0	290.7	0.0	2021.0	1.1	0.0	0.8	2.0	0.0	0.0	106.1	110.0	2131.0
3. Manufacture	856.1	3727.3	1214.8	1154.0	3075.5	2570.1	1793.5	4092.2	5282.2	23765.7	59.1	72.6	45.1	32.8	50.5	143.5	462.4	866.0	24631.7
4. Construction	39.1	101.3	64.2	47.5	58.0	111.1	140.5	147.5	216.6	926.0	47.3	69.9	54.6	49.8	33.8	133.3	148.5	537.2	1463.2
5. Electricity, Gas & Water	30.1	77.8	18.9	6.8	21.7	68.7	39.1	24.8	92.4	380.4	3.0	1.5	1.8	2.4	1.5	1.7	2.0	13.9	394.2
6. Transports, Storage and Communication	69.7	1657.7	419.0	93.1	357.0	1930.8	962.1	1041.1	1339.1	7869.6	0.2	1.2	0.5	0.2	0.3	5.2	6.7	14.1	5784.0
Road	28.8	1155.9	329.5	61.6	248.7	1419.7	706.2	780.7	1038.8	5770.0	0.2	1.0	0.5	0.2	0.3	0.0	0.0	0.0	148.1
Rail	30.3	24.0	0.0	16.0	12.5	24.4	8.2	24.0	8.7	148.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	0.0	2.0	8.0	4.0	0.0	6.0	1.0	0.0	3.0	24.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	15.6	39.6
Communication	10.6	475.8	81.5	11.5	95.8	480.7	246.7	236.4	288.6	1927.5	0.0	0.2	0.1	0.0	0.0	2.0	2.3	4.7	1932.2
7. Trade & tourism	417.6	560.0	2110.5	1357.9	991.7	1341.3	1545.6	1656.7	2179.2	12160.5	90.0	78.4	97.9	101.7	125.3	217.6	309.6	1020.4	13180.9
Trade	417.6	494.2	2057.9	1357.9	991.7	1209.6	1519.2	1617.2	2100.1	11765.2	90.0	74.2	97.9	101.7	125.3	213.3	303.3	1005.7	12770.9
Tourism	0.0	65.9	52.7	0.0	0.0	131.8	26.4	39.5	79.1	395.3	0.0	4.2	0.0	0.0	0.0	4.2	6.3	14.7	410.0
8. Banking, Insurance and Realstate	22.4	231.0	168.5	59.6	96.7	326.1	280.7	352.5	364.4	1901.9	67.7	375.6	184.2	67.0	83.7	426.8	627.2	1832.2	3734.1
9. Ownership & Dwelling	74.7	285.4	311.4	235.3	183.1	255.9	224.1	261.3	330.0	2161.2	79.3	207.3	132.6	108.0	126.8	243.1	341.9	1238.8	3480.0
10. Public services	29.1	23.5	52.4	57.2	36.9	59.2	92.4	76.1	62.2	489.1	7.3	9.8	5.6	11.4	6.9	14.8	15.6	71.4	560.4
Defence & Admn	17.1	11.1	35.9	40.2	24.0	37.6	61.5	54.6	41.0	323.0	4.7	5.5	4.6	6.9	4.4	10.3	10.8	47.1	370.1
Health	2.1	4.2	3.2	5.7	3.5	4.6	9.2	8.1	6.7	47.4	0.5	1.3	0.1	1.5	0.4	1.3	1.9	6.9	54.4
Education	9.8	8.2	13.4	11.4	9.4	17.0	21.7	13.4	14.4	118.6	2.1	3.0	0.9	3.0	2.1	3.2	2.9	17.3	136.0
11. Private services	153.8	136.4	319.3	349.0	198.4	429.8	488.7	522.3	462.2	3060.0	101.3	211.1	105.2	247.5	132.2	286.2	356.6	1440.0	4500.0
GDP	2932.7	7298.0	6949.9	3843.9	5774.2	9039.7	6568.8	9195.7	11137.2	62740.1	552.6	1307.3	830.9	900.4	711.8	1829.2	2777.2	8909.2	71649.3

GALLE DISTRICT - GROSS DOMESTIC PRODUCT BY DSD 2004
Constant price 1996

Rs. Mn																					
	Ambalangoda	Balapitaya	Bentota	Galle Four Gravies	Habaraduwa	Hikkaduwa	Coastal GDP	Akmeemana	Baddegama	Bope Poddala	Elipitaya	Imaduwa	Karamdeniya	Nagoda	Neluwa	Niyagama	Thawalama	Welivithya Divithura	Yakkalamulla	Non Coastal	District GDP
1. Agriculture, Forest and Fishing	375.0	1,101.0	223.8	687.0	911.5	957.8	4,256.0	459.7	768.6	218.8	623.9	355.4	269.7	755.4	421.6	596.1	548.0	238.9	923.5	6,179.7	10,435.8
1.1 Agriculture	170.0	69.8	223.8	65.7	153.7	196.4	879.3	459.7	767.7	218.8	621.7	353.0	269.6	674.7	381.9	508.0	331.4	228.1	888.9	5,703.7	6,593.0
Tea	3.1	1.6	1.0	7.9	3.9	0.3	17.8	97.8	211.3	41.9	138.4	141.0	9.6	293.9	179.7	131.9	188.9	88.0	215.8	1,738.2	1,756.0
Rubber	2.7	3.8	20.3	1.8	1.7	2.0	32.3	9.3	36.5	2.1	112.5	10.7	8.5	101.2	15.3	54.9	13.1	23.5	20.0	407.7	440.0
Coconuts	4.0	1.2	1.4	0.8	2.3	8.4	18.0	3.7	9.0	2.4	2.0	3.3	2.1	6.6	1.4	1.9	1.8	3.3	3.4	41.0	59.0
Paddy	32.3	11.1	27.1	1.3	17.9	20.8	110.4	38.0	78.9	15.4	94.7	58.4	68.7	51.3	27.0	74.2	29.7	50.0	37.3	623.6	734.0
Other agriculture	127.8	52.0	174.1	54.1	127.8	164.9	700.8	310.9	432.0	157.1	274.1	139.6	180.8	221.7	158.5	245.0	97.9	63.3	612.4	2,893.2	3,594.0
1.2 Forestry and Firewood	-	-	-	-	-	1.1	1.1	-	0.9	-	2.1	2.4	-	80.7	39.7	88.1	216.6	10.7	34.6	475.9	477.0
1.3 Fishing	205.0	1,031.2	-	621.3	757.8	760.4	3,375.7	-	0.0	-	-	0.0	0.0	-	-	-	-	-	-	0.1	3,375.8
Coastal	205.0	1,031.0	-	621.3	757.8	760.4	3,375.5	-	-	-	-	-	-	-	-	-	-	-	-	-	3,375.5
Inland	-	0.2	-	-	0.0	-	0.2	-	0.0	-	-	0.0	0.0	-	-	-	-	-	-	0.1	0.3
2. Mining and Quarrying	58.6	13.6	83.7	27.2	56.5	70.1	309.8	0.9	5.0	1.8	4.2	5.2	1.8	4.2	5.9	3.5	8.5	6.8	-	48.0	357.8
3. Manufacture	489.0	319.1	432.4	265.9	852.2	26.8	2,385.3	54.4	4.2	34.0	26.2	8.8	7.6	13.9	8.0	11.2	1.1	25.9	22.6	217.7	2,603.0
4. Construction	231.5	63.5	238.2	221.5	267.7	204.2	1,226.6	165.6	76.4	484.4	80.3	213.8	232.4	173.0	364.9	139.3	41.6	542.5	109.2	2,623.4	3,850.0
5. Electricity Gas & Water	32.6	27.3	19.4	39.8	24.6	41.0	184.7	3.8	3.9	2.7	3.4	2.4	3.3	2.5	1.1	1.8	1.4	1.3	2.1	29.7	214.4
6. Transports, Storage and Communication	693.3	313.8	218.6	1,176.0	421.3	655.8	3,478.7	272.7	300.9	281.8	331.3	187.8	305.6	235.7	125.3	201.7	122.9	81.3	170.8	2,617.9	6,096.6
Road	525.2	227.7	132.2	643.8	258.6	451.8	2,239.4	257.2	281.5	271.0	286.1	180.5	284.9	220.2	119.7	192.3	115.6	75.1	162.5	2,446.6	4,686.0
Rail	138.0	72.9	74.1	252.4	131.8	184.5	853.7	-	-	-	-	-	-	-	-	-	-	-	-	-	853.7
Air	-	-	-	-	13.3	-	13.3	-	-	-	-	-	-	-	-	-	-	-	-	-	13.3
Water	-	-	-	232.0	-	-	232.0	-	-	-	-	-	-	-	-	-	-	-	-	-	232.0
Communication	30.2	13.1	12.3	47.7	17.6	19.5	140.4	15.6	19.4	10.8	45.2	7.3	20.7	15.5	5.6	9.4	7.3	6.1	8.2	171.2	311.6
7. Trade & tourism	668.7	1,103.9	1,281.9	1,672.5	1,903.9	1,676.1	8,306.9	7.7	16.1	18.0	55.9	3.9	7.7	47.6	48.2	-	3.9	-	16.1	225.0	8,531.9
Trade	662.7	868.0	682.3	1,406.5	1,784.3	1,627.4	7,031.3	-	-	-	-	-	-	-	-	-	-	-	-	-	7,031.3
Tourism	5.9	236.0	599.6	265.9	119.6	48.6	1,275.6	7.7	16.1	18.0	55.9	3.9	7.7	47.6	48.2	-	3.9	-	16.1	225.0	1,500.6
8. Banking, Insurance and Realstate	161.3	103.7	195.9	368.8	138.3	195.9	1,163.9	0.5	0.7	0.7	0.7	1.1	0.5	0.4	0.4	0.7	0.4	0.5	0.7	7.1	1,171.0
9. Ownerships& Dwelling	91.3	77.1	57.6	99.0	93.5	131.7	550.2	59.9	67.4	37.3	56.8	39.4	27.2	51.3	22.7	33.8	28.4	26.5	40.1	491.0	1,041.2
10. Public services	98.7	84.0	66.6	150.7	101.2	125.6	626.8	112.3	139.9	79.8	118.0	88.1	73.6	99.2	44.2	63.3	62.0	56.0	85.1	1,021.6	1,648.4
Defence & Admn	70.7	59.8	44.6	76.7	72.4	102.0	426.2	88.9	100.0	55.4	84.4	58.5	40.4	76.1	33.8	50.1	42.2	39.4	59.6	728.8	1,155.0
Health	3.8	4.5	2.0	35.1	1.7	1.4	48.6	0.9	2.8	5.2	1.5	2.2	3.6	4.6	1.3	1.0	3.1	1.8	1.3	29.4	78.0
Education	24.2	19.7	20.0	38.9	27.0	22.2	152.0	22.5	37.1	19.2	32.1	27.4	29.6	18.4	9.1	12.2	16.8	14.9	24.2	263.4	415.4
11. Private services	88.9	127.3	94.1	24.5	205.0	155.8	695.5	9.5	13.3	7.1	13.3	8.1	14.9	7.3	4.4	6.6	6.5	5.7	8.1	105.0	800.5
GDP	2,989.9	3,334.3	2,912.2	4,732.8	4,975.6	4,240.7	23,184.5	1,147.2	1,396.5	1,166.4	1,314.2	914.1	944.3	1,390.4	1,046.7	1,057.9	824.8	985.4	1,378.1	13,566.1	36,750.6

MATARA DISTRICT - GROSS DOMESTIC PRODUCT BY DSD 2004

Constant price 1996

Rs. Mn

	Welligama	Matara Four Gravets	Devnawara	Dickwella	Coastal GDP	Piabadara	Kotapola	Pasgoda	Muliyana	Athuralliya	Akuressa	Welipitiya	Malimbada	Kamburupitiya	Hakmana	Kirinda - Pabulwella	Thihagoda	Not Coastal	District GDP
1. Agriculture, Forest and Fishing.	845.7	511.5	729.0	1,476.9	3,563.2	708.6	911.5	610.7	352.8	330.2	623.9	349.5	270.8	328.3	232.5	167.6	245.4	5,131.8	8,695.1
1.1 Agriculture	146.9	95.8	96.9	210.2	549.8	512.1	820.5	553.7	296.9	319.8	425.3	347.4	267.9	312.2	209.8	152.0	236.6	4,454.2	5,004.0
Tea	0.8	-	-	22.6	23.5	304.3	562.9	367.6	80.5	77.5	159.4	45.8	10.0	15.3	0.4	0.4	0.6	1,624.5	1,648.0
Rubber	1.1	-	3.5	8.8	13.3	10.1	1.6	9.5	42.7	45.5	28.2	28.6	6.8	35.1	1.9	10.6	10.0	230.7	244.0
Coconuts	33.9	21.3	18.6	34.8	108.5	23.8	8.4	14.1	15.9	37.9	16.5	41.0	18.7	13.2	24.7	9.4	7.0	230.5	339.0
Paddy	17.7	5.7	13.9	18.5	55.8	46.7	50.1	73.6	59.8	63.7	78.9	66.2	46.1	65.0	38.4	29.7	84.9	703.2	759.0
Other agriculture	93.4	68.8	61.0	125.5	348.7	127.2	197.5	88.9	97.9	95.2	142.3	165.8	186.4	183.5	144.4	101.9	134.1	1,665.3	2,014.0
1.2 Forestry and Firewood	-	-	12.4	15.8	28.2	196.5	91.0	57.0	55.8	10.4	198.4	2.1	2.8	16.1	22.7	15.4	8.6	676.8	705.0
1.3 Fishing	698.9	415.7	619.7	1,250.9	2,985.2	-	0.1	-	0.1	-	0.2	-	0.0	0.0	-	0.2	0.2	0.9	2,986.1
Coastal	698.7	415.6	619.7	1,250.9	2,985.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2,985.0
Inland	0.2	0.1	-	-	0.2	-	0.1	-	0.1	-	0.2	-	0.0	0.0	-	0.2	0.2	0.9	1.1
2. Mining and Quarrying	75.3	38.1	67.7	42.3	223.4	1.1	1.5	0.9	0.7	-	1.5	0.6	1.3	1.1	1.5	1.7	0.9	12.9	236.3
3. Manufacture	786.2	203.0	428.4	526.0	1,943.7	339.1	175.9	197.7	209.1	233.8	-	-	200.4	200.4	543.0	32.9	73.0	2,205.3	4,149.9
4. Construction	6.2	64.3	32.0	49.7	152.2	34.3	68.3	30.3	47.2	12.7	44.4	20.5	34.4	82.6	39.7	23.9	34.5	472.8	625.0
5. Electricity Gas & Water	31.0	53.3	23.0	25.2	132.5	5.8	6.3	6.2	6.5	4.3	6.6	6.7	4.5	6.0	4.3	2.6	5.0	64.8	197.3
6. Transports, Storage and Communication	631.3	792.9	258.0	165.4	1,847.6	63.4	95.8	182.9	119.3	93.4	184.8	153.6	114.9	169.8	125.6	81.5	161.2	1,546.2	3,393.8
Road	495.0	580.3	248.7	138.7	1,462.7	50.3	76.6	164.6	110.3	83.2	172.3	144.2	101.9	153.8	115.8	77.6	152.2	1,402.8	2,865.5
Rail	115.6	171.5	-	-	287.1	-	-	-	-	-	-	-	-	-	-	-	-	-	287.1
Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communication	20.7	41.1	9.3	26.7	97.8	13.1	19.2	18.3	9.0	10.2	12.5	9.4	13.1	16.0	9.9	3.8	9.0	143.4	241.2
7. Trade & tourism	579.0	688.0	629.9	805.4	2,702.3	173.1	224.8	245.5	169.8	65.8	318.9	127.4	115.5	271.3	128.7	70.1	99.4	2,010.2	4,712.5
Trade	505.8	649.6	627.4	732.0	2,514.8	173.1	224.8	245.5	169.8	65.8	318.9	127.4	115.5	271.3	128.7	70.1	99.4	1,970.2	4,485.0
Tourism	73.2	38.4	2.5	73.5	187.5	-	-	-	-	-	-	-	-	-	-	-	-	-	227.5
8. Banking, Insurance and Realstate	184.5	299.7	138.3	161.4	784.0	26.9	32.9	17.9	23.9	20.9	14.9	23.9	20.9	29.9	20.9	23.9	17.9	275.0	1,059.0
9. Ownership & Dwelling	71.9	122.1	55.5	63.9	313.4	43.4	57.5	53.2	47.6	28.8	53.4	45.7	32.3	38.3	31.8	18.9	35.2	486.1	799.5
10. Public services	84.3	174.0	60.7	74.0	393.0	81.8	108.7	105.8	91.1	56.5	100.8	79.1	65.9	83.7	65.7	41.0	65.7	945.9	1,338.9
Defence & Admin	58.7	99.6	45.3	52.2	255.7	60.6	80.2	74.2	66.4	40.2	74.5	63.7	45.1	53.5	44.4	26.4	49.2	678.3	934.0
Health	4.0	16.6	2.1	1.8	24.5	2.2	2.6	3.6	1.4	1.0	1.0	1.0	1.7	4.3	3.0	1.4	1.2	24.5	49.0
Education	21.7	57.8	13.4	20.0	112.8	19.1	25.9	28.0	23.3	15.3	25.3	14.4	19.1	26.0	18.3	13.2	15.3	243.1	355.9
11. Private services	92.8	119.1	79.5	111.7	403.1	3.4	4.6	12.9	3.8	2.0	8.3	3.2	3.9	5.7	4.3	3.1	2.7	57.9	461.0
GDP	3,388.3	3,066.0	2,502.0	3,502.0	12,458.4	1,481.0	1,687.8	1,464.0	1,071.9	848.4	1,357.6	810.1	864.9	1,217.2	1,198.1	467.1	740.9	13,208.9	25,667.3

HAMBANTOTA DISTRICT - GROSS DOMESTIC PRODUCT BY DSD 2004

	Ambalantota	Hambantota	Tangalle	Thissamahattaya	Coastal GDP	Angunakolapalassa	Reliatta	Katuwana	Lunugavehera	Okevela	Sooriyawewa	Weraethiya	Walasmulla	Non Coastal	District GDP
1. Agriculture, Forest and Fishing	638.0	730.1	601.5	501.3	2,470.9	463.6	262.7	292.5	623.6	193.0	545.4	259.2	233.3	2,873.1	5,344.0
1.1 Agriculture	373.9	310.5	220.0	248.9	1,153.3	439.1	262.7	200.3	488.5	193.0	478.8	251.8	229.5	2,543.7	3,697.0
Tea	-	-	-	-	-	-	-	4.8	-	-	-	-	23.2	28.0	28.0
Rubber	-	-	-	-	-	-	1.9	0.6	-	0.6	-	-	-	3.0	3.0
Coconuts	3.1	2.8	6.7	1.5	14.0	4.3	21.9	6.2	0.7	4.2	1.2	23.1	6.4	68.0	82.0
Paddy	157.2	101.7	46.8	144.1	449.8	85.7	49.4	15.1	107.9	36.3	50.1	99.0	70.7	514.2	964.0
Other agriculture	213.6	206.0	166.6	103.4	689.6	349.2	189.5	173.6	379.9	151.9	427.5	129.7	129.2	1,930.4	2,620.0
1.2 Forestry and Firewood	5.3	192.0	-	25.0	222.3	24.3	-	92.2	118.5	-	64.5	7.4	3.8	310.7	533.0
1.3 Fishing	258.8	227.6	381.5	227.3	1,095.2	0.1	-	-	16.6	-	2.0	-	-	188	1,114.0
Coastal	258.6	227.3	380.8	227.3	1,094.0	-	-	-	-	-	-	-	-	-	1,094.0
Inland	0.3	0.2	0.7	-	1.2	0.1	-	-	16.6	-	2.0	-	-	18.8	20.0
2. Mining and Quarrying	66.3	104.7	66.9	111.7	349.7	13.8	1.7	8.7	-	5.2	8.7	3.3	8.7	50.0	399.7
3. Manufacture	1,233.3	820.1	229.3	121.7	2,404.3	558.0	239.8	10.1	61.6	41.8	21.1	57.7	32.6	1,022.7	3,427.0
4. Construction	23.3	31.8	55.8	21.2	132.1	19.5	24.4	17.0	31.2	8.8	47.6	30.9	25.6	204.9	337.0
5. Electricity, Gas & Water	20.0	15.1	21.6	18.5	75.2	1.2	2.9	1.7	0.6	0.7	0.7	1.9	2.2	12.1	87.3
6. Transports, Storage and Communication	532.1	156.1	241.3	262.1	1,191.6	179.7	225.1	222.1	39.3	69.3	210.8	159.5	181.9	1,287.7	2,479.3
Road	521.6	144.1	219.8	249.0	1,134.5	173.3	209.6	212.3	32.3	64.9	205.2	146.4	169.7	1,213.7	2,348.2
Rail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communication	10.4	12.0	21.5	13.1	57.1	6.5	15.5	9.7	7.0	4.4	5.6	13.1	12.3	74.0	131.1
7. Trade & tourism	1,094.8	446.8	637.5	1,066.1	3,245.3	86.5	74.6	56.7	95.7	32.5	-	29.9	65.1	441.0	3,686.3
Trade	1,091.4	426.1	569.9	993.4	3,080.8	54.5	74.6	48.7	95.7	32.5	-	29.9	65.1	401.0	3,481.8
Tourism	3.4	20.7	67.7	72.8	164.6	32.0	-	8.0	-	-	-	-	-	40.0	204.6
8. Banking, Insurance and Realstate	126.6	126.6	161.2	138.1	552.6	19.7	33.8	22.5	14.1	25.3	16.9	22.5	19.7	174.4	727.0
9. Ownerships & Dwelling	82.4	66.5	60.6	75.6	285.2	47.3	58.3	43.5	29.0	12.1	44.6	39.9	42.5	317.1	602.3
10. Public services	92.3	69.3	67.7	79.7	309.0	92.1	115.8	86.0	53.7	28.9	77.4	86.5	91.2	631.6	940.6
Defence & Admin	63.1	51.0	46.5	58.0	218.6	65.9	81.3	60.7	40.4	16.8	62.2	55.7	59.3	442.4	661.0
Health	1.3	3.6	2.8	1.9	9.6	3.5	3.9	1.8	1.3	1.0	1.6	3.9	3.6	20.4	30.0
Education	27.9	14.7	18.4	19.8	80.8	22.8	30.6	23.5	12.0	11.0	13.7	26.9	28.3	168.8	249.6
11. Private services	152.1	56.0	98.6	107.7	414.4	8.9	17.4	8.6	5.2	3.9	4.9	12.8	4.3	66.0	480.4
GDP	4,061.3	2,623.3	2,241.9	2,503.8	11,430.2	1,490.3	1,056.3	769.4	954.0	421.4	978.0	704.1	707.1	7,080.7	18,510.9

COLOMBO DISTRICT - GROSS DOMESTIC PRODUCT BY DIVISIONAL SECRETARIET DIVISIONS

Constant price 1996

	Mortuwa	Colombo	Dehiwala	Ratmalana	Thibirig'ya	Coastal GDP	Kolonnawa	Kaduwa	Homagama	Hanwella	Padukka	Maharagama	Kesheva	Sri Jayaw	Non coastal	District GDP
1. Agriculture, Forest and Fishing	309.3	505.8	31.8	171.3	25.1	1,043.3	67.5	337.6	468.7	423.5	349.0	150.2	182.6	25.4	2,004.5	3,047.3
1.1 Agriculture	28.9	-	-	-	-	28.9	46.4	166.3	447.1	396.0	302.3	131.2	165.8	0.1	1,655.2	1,684.1
Tea	-	-	-	-	-	-	-	-	1.2	5.2	2.1	-	-	-	8.5	8.5
Rubber	-	-	-	-	-	-	0.6	2.4	13.8	84.0	59.0	2.2	1.9	-	164.0	164.0
Coconuts	4.0	-	-	-	-	4.0	9.1	25.0	129.1	93.1	51.2	19.2	34.9	-	361.6	365.6
Paddy	-	-	-	-	-	-	0.8	11.1	51.7	9.3	26.1	9.8	10.4	0.1	119.3	119.3
Other agriculture	24.9	-	-	-	-	24.9	35.9	127.8	251.2	204.5	163.8	100.1	118.5	-	1,001.8	1,026.7
1.2 Forestry and Firewood	17.1	11.2	31.8	19.6	25.1	104.9	21.1	167.5	21.6	26.2	46.7	15.6	15.4	25.4	339.5	444.4
1.3 Fishing	263.4	494.5	-	151.7	-	909.6	-	3.7	-	1.3	-	3.3	1.3	-	9.7	919.3
Coastal	263.4	494.5	-	151.7	-	909.6	-	-	-	-	-	-	-	-	-	909.6
Inland	-	-	-	-	-	-	-	3.7	-	1.3	-	3.3	1.3	-	9.7	9.7
2. Mining and Quarrying	-	-	-	-	-	-	5.9	20.6	-	19.1	-	7.4	20.6	-	73.5	73.5
3. Manufacture	21,274.6	2,464.8	2,935.5	3,115.3	230.0	30,020.2	2,404.7	63.5	74.6	11,056.9	67.2	2,782.6	130.2	2,928.1	19,507.8	49,528.0
4. Construction	1,454.2	2,492.9	1,699.1	1,869.7	1,209.1	8,725.0	182.9	1,819.9	647.5	1,856.5	1,097.3	1,766.5	1,059.9	2,559.4	10,990.0	19,715.0
5. Electricity Gas & Water	732.5	1,720.4	563.9	631.8	1,222.9	4,871.5	154.6	156.6	161.7	199.6	118.3	176.4	169.3	92.1	1,228.5	6,100.0
6. Transports, Storage and Communication	3,179.0	20,812.2	2,255.2	2,588.8	2,065.4	30,900.5	1,488.7	2,230.8	1,395.9	904.3	585.3	1,937.2	1,435.4	1,422.6	11,400.2	42,300.7
Road	2,400.9	17,605.3	1,601.2	1,100.9	1,458.6	24,166.9	1,220.7	1,970.4	1,101.5	721.0	369.7	1,635.2	1,214.6	1,271.4	9,504.6	33,671.5
Rail	528.1	1,610.9	403.9	382.8	458.3	3,384.0	-	-	13.2	9.7	9.0	14.2	-	4.0	50.0	3,434.0
Air	-	-	-	911.0	-	911.0	-	-	-	-	-	-	-	-	-	911.0
Water	-	1,014.0	-	-	-	1,014.0	-	-	-	-	-	-	-	-	-	1,014.0
Communication	250.1	582.0	250.1	194.0	148.5	1,424.6	268.0	260.4	281.2	173.6	206.6	287.8	220.8	147.2	1,845.6	3,270.2
7. Trade & tourism	8,594.7	7,483.9	7,231.8	12,380.8	5,675.8	41,367.0	194.4	167.0	146.2	134.1	203.7	109.6	229.3	194.6	1,379.0	42,746.0
Trade	8,541.8	6,576.0	7,108.4	12,373.9	5,253.8	39,854.0	194.4	167.0	130.9	95.2	203.7	109.6	183.5	194.6	1,279.0	41,133.0
Tourism	52.8	907.9	123.4	6.8	422.0	1,513.0	-	-	15.3	38.9	-	-	45.8	-	100.0	1,613.0
8. Banking, Insurance and Realstate	1,901.4	12,834.1	2,263.5	1,663.7	4,278.0	22,940.7	482.7	402.2	965.3	563.1	482.7	804.5	321.8	724.0	4,746.3	27,687.0
9. Ownership & Dwelling	1,236.5	2,094.9	1,007.7	1,155.5	1,500.6	6,995.1	313.6	251.5	406.4	586.9	400.0	353.4	598.6	255.6	3,166.0	10,161.1
10. Public services	805.7	1,319.3	457.1	673.9	1,426.5	4,682.4	577.1	187.3	585.1	503.2	269.2	784.9	761.0	523.1	4,191.1	8,873.5
Defence & Admn	676.0	1,029.9	362.4	587.8	459.5	3,115.5	481.7	60.6	470.3	388.1	217.3	650.9	658.1	400.4	3,327.5	6,445.0
Health	7.7	56.4	18.5	14.5	479.9	577.1	14.9	14.8	9.9	9.6	4.8	32.7	14.2	21.1	121.9	699.0
Education	122.0	233.0	76.1	71.6	487.1	989.8	80.5	111.9	104.9	105.5	47.2	101.3	88.7	101.5	741.7	1,731.5
11. Private services	894.4	4,908.7	1,139.6	928.0	943.5	8,814.2	113.1	136.2	170.9	141.5	101.5	111.3	113.3	97.2	985.0	9,799.2
GDP	40,382.2	56,636.9	19,585.3	25,178.8	18,576.9	160,360.1	5,985.3	5,773.2	5,022.4	16,388.9	3,674.1	8,983.8	5,021.8	8,822.1	59,671.7	220,031.8

GAMPAHA DISTRICT - GROSS DOMESTIC PRODUCT BY DIVISIONAL SECRETARIET DIVISIONS

Constant price 1996

	Negombo	Wattala	Coastal	Atranagalla	Biyagama	Divulapitiya	Dompe	Gampaha	Ja-Ela	Katana	Kelaniya	Mahara	Minuwangoda	Mirigama	Non Coastal	District GDP
1. Agriculture, Forest and Fishing	1,498.4	109.6	1,608.0	599.0	221.5	1,105.0	683.9	463.4	1,376.0	390.3	88.1	583.4	520.1	953.6	5,577.4	7,185.4
1.1 Agriculture	59.4	83.4	142.8	562.9	189.4	1,073.5	637.0	335.7	137.9	366.6	48.8	342.9	489.8	920.6	5,105.1	5,247.9
Tea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber	-	-	-	23.9	0.8	4.5	22.9	3.8	1.8	0.2	-	2.3	8.5	13.3	82.0	82.0
Coconuts	15.8	20.4	36.2	211.6	36.0	682.7	210.6	69.8	30.5	178.9	6.4	94.0	176.3	436.2	2,132.9	2,169.1
Paddy	-	-	-	19.0	3.7	19.9	22.8	16.8	4.1	1.1	-	14.2	17.4	33.2	152.3	152.3
Other agriculture	43.6	63.0	106.6	308.4	148.9	366.3	380.7	245.3	101.4	186.5	42.4	232.3	287.7	437.9	2,737.9	2,844.5
1.2 Forestry and Firewood	32.0	26.2	58.2	36.1	32.0	31.6	47.0	127.7	31.7	23.7	39.3	31.7	30.2	32.9	464.1	522.3
1.3 Fishing	1,407.0	-	1,407.0	-	-	-	-	-	1,206.4	-	-	208.8	-	-	82	1,415.2
Coastal	1,407.0	-	1,407.0	-	-	-	-	-	-	-	-	-	-	-	-	1,407.0
Inland	-	-	-	-	-	-	-	-	7.0	-	-	1.2	-	-	8.2	8.2
2. Mining and Quarrying	-	430.6	430.6	19.6	2.8	19.6	8.4	22.4	-	5.6	8.4	-	5.6	25.2	117.6	548.2
3. Manufacture	8,216.8	3,620.7	11,837.5	3,457.3	4,067.1	1,811.4	952.6	3,406.5	1,264.7	2,018.3	4,768.5	2,968.2	5,316.0	1,195.5	31,226.0	43,063.5
4. Construction	851.7	1,126.0	1,977.6	1,391.6	1,855.5	1,159.7	1,411.0	1,318.4	254.9	1,017.3	1,240.3	1,324.4	1,340.7	836.2	13,150.0	15,127.6
5. Electricity, Gas & Water	563.8	724.3	1,288.2	32.8	65.7	91.5	81.1	71.8	49.0	95.6	84.6	77.6	78.9	75.5	804.0	2,092.2
6. Transport, Storage and Communication	4,061.1	4,706.7	8,767.7	1,372.7	2,183.6	1,828.5	1,711.2	3,392.4	2,336.9	1,708.6	2,102.2	2,694.5	1,938.5	2,769.7	24,638.9	33,406.6
Road	1,334.0	4,182.5	5,516.5	1,090.7	1,828.4	1,619.6	1,347.1	1,916.3	2,339.8	1,328.0	1,715.2	2,440.9	1,584.8	1,467.8	18,678.4	24,194.9
Rail	427.0	284.7	711.7	-	-	-	-	1,094.1	234.5	-	78.2	-	-	937.8	2,344.5	3,056.2
Air	1,821.0	-	1,821.0	-	-	-	-	-	-	-	-	-	-	-	-	1,821.0
Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communication	479.0	239.5	718.5	282.0	355.1	208.9	364.1	382.0	362.7	380.6	308.9	253.7	353.7	364.1	3,616.0	4,334.5
7. Trade & tourism	13,193.4	11,147.2	24,340.7	3,076.1	4,493.2	3,201.7	2,507.1	4,305.0	5,230.5	3,518.3	2,975.3	2,391.4	3,702.7	5,782.7	41,184.0	65,524.7
Trade	12,344.3	11,051.4	23,395.7	3,076.1	4,465.1	3,201.7	2,507.1	4,305.0	5,196.5	3,516.9	2,957.8	2,391.4	3,691.8	5,782.7	41,092.0	64,487.7
Tourism	849.1	95.9	945.0	-	28.2	-	-	-	33.9	1.4	17.5	-	11.0	-	92.0	1,037.0
8. Banking, Insurance and Real estate	2,139.0	1,901.3	4,040.4	845.8	1,339.0	1,231.9	1,041.1	2,328.9	1,630.2	698.7	1,168.7	698.7	931.6	931.6	12,846.0	16,886.4
9. Ownership & Dwelling	878.8	600.9	1,479.7	330.8	626.1	489.2	664.3	400.6	317.2	921.3	532.0	707.7	699.1	662.4	6,350.7	7,830.4
10. Public services	506.2	496.6	1,002.8	523.3	510.0	546.2	466.8	334.5	604.6	626.1	471.3	538.6	600.9	529.7	5,752.0	6,754.8
Defence & Admin	303.0	369.8	672.8	341.1	384.7	390.2	262.4	96.5	388.2	519.3	313.3	388.6	407.7	374.0	3,866.0	4,538.8
Health	9.8	20.3	30.0	12.1	14.8	22.7	14.2	19.8	24.7	8.5	8.3	14.4	7.7	8.8	156.0	186.0
Education	193.5	106.5	300.0	170.1	110.4	133.4	190.2	218.1	191.7	98.4	149.7	135.6	185.5	146.9	1,730.0	2,030.0
Private services	355.5	827.5	1,183.0	37.5	39.4	44.3	41.2	36.1	22.9	29.6	23.6	30.5	70.6	48.3	424.0	1,607.0
GDP	32,264.7	25,691.5	57,956.1	11,686.4	15,403.8	11,529.0	9,568.6	16,080.0	13,687.0	11,029.8	13,463.0	12,014.9	15,204.8	13,810.4	142,070.6	200,026.7

KALUTARA DISTRICT - GROSS DOMESTIC PRODUCT BY DIVISIONAL SECRETARIET DIVISIONS

Rs. Mn

	Bennuwa	Kalutara	Panadura	Coastal	Agalawatta	Bandaragama	Bulathsinghala	Podangoda	Horana	Ingiriya	Madurawala	Mathugama	Millaniya	Palindanuwara	Walahitiya	Non Coastal	District GDP
1. Agriculture, Forest and Fishing	1,746.5	218.7	89.0	2,054.2	247.7	170.6	580.6	288.9	346.5	283.5	178.4	446.3	220.9	472.8	469.0	3,705.1	5,759.3
1.1 Agriculture	255.4	208.4	81.4	545.2	216.1	120.6	561.0	270.1	332.7	259.7	145.5	431.3	194.0	447.9	442.4	3,421.2	3,966.4
Tea	0.7	-	-	0.7	16.1	-	109.9	2.6	3.3	59.3	8.3	30.2	0.8	97.7	87.6	415.8	416.5
Rubber	23.6	11.5	1.2	36.3	31.9	5.6	130.2	81.0	45.4	46.7	22.4	90.5	31.8	90.4	53.2	629.1	665.4
Coconuts	64.4	81.1	31.5	177.0	14.9	34.7	52.4	31.8	64.7	38.0	10.4	52.2	24.8	22.2	27.4	373.4	550.4
Paddy	17.9	10.4	1.4	29.7	32.6	9.9	44.5	26.2	47.4	13.3	19.8	44.3	34.6	37.5	51.8	361.9	391.5
Other agriculture	148.9	105.3	47.4	301.6	120.6	70.5	224.1	128.6	171.7	102.3	84.5	214.0	102.1	200.1	222.5	1,641.0	1,942.6
1.2 Forestry and Firewood	9.1	9.3	7.6	25.9	31.6	14.9	19.5	18.7	13.8	23.8	33.0	15.1	26.9	24.9	22.6	244.9	270.8
1.3 Fishing	1,482.0	1.1	-	1,483.1	-	35.0	-	-	-	-	-	-	-	-	4.0	39.0	1,522.1
Coastal	1,482.0	-	-	1,482.0	-	-	-	-	-	-	-	-	-	-	-	-	1,482.0
Inland	-	1.1	-	1.1	-	35.0	-	-	-	-	-	-	-	-	4.0	39.0	40.1
2. Mining and Quarrying	-	144.4	-	144.4	-	6.2	12.3	-	18.5	-	-	6.2	-	-	22.6	65.9	210.3
3. Manufacture	548.3	1,605.4	5,171.1	7,324.8	60.4	90.3	312.2	173.2	2,692.9	856.9	1,353.8	1,869.9	471.0	448.5	528.9	8,858.1	16,182.9
4. Construction	1,145.7	571.6	886.2	2,603.5	1,062.0	782.6	851.7	945.8	338.1	184.6	657.5	297.9	79.8	126.2	75.2	5,401.3	8,004.8
5. Electricity, Gas & Water	671.6	834.2	1,154.7	2,660.5	41.4	105.3	65.5	76.7	101.5	67.5	44.7	90.4	39.6	52.3	61.9	747.0	3,407.5
6. Transports, Storage and Communication	2,050.4	2,618.5	2,657.2	7,326.1	448.2	1,116.6	693.3	451.1	1,114.5	617.0	424.3	815.8	560.2	458.4	535.4	7,234.7	14,560.7
Road	1,121.8	1,294.2	1,811.5	4,227.5	221.0	829.4	405.0	253.9	902.3	328.6	197.1	527.4	316.8	177.5	239.5	4,398.5	8,626.0
Rail	495.0	899.9	588.0	1,983.0	-	-	-	-	-	-	-	-	-	-	-	-	1,983.0
Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communication	433.5	424.4	257.7	1,115.6	227.2	287.2	288.4	197.2	212.2	288.4	227.2	288.4	243.4	280.9	295.8	2,836.2	3,951.8
7. Trade & tourism	7,987.2	12,667.3	6,366.1	27,020.6	2,432.3	2,252.9	2,000.6	1,609.2	5,006.5	3,810.5	1,047.0	1,980.8	1,825.8	1,770.2	1,247.8	24,983.8	52,004.4
Trade	7,705.2	12,344.7	6,277.7	26,327.6	2,429.8	2,252.9	2,000.6	1,609.2	5,006.5	3,810.5	1,047.0	1,980.8	1,825.8	1,770.2	1,146.3	24,879.7	51,207.4
Tourism	282.0	322.6	88.4	693.0	2.5	-	-	-	-	-	-	-	-	-	101.5	104.0	797.0
8. Banking, Insurance and Realstate	967.1	2,138.9	1,460.9	4,567.0	355.0	642.1	460.4	468.6	1,068.1	532.6	276.5	570.5	312.6	373.5	534.0	5,594.2	10,161.1
9. Ownership & Dwelling	626.1	841.4	787.9	2,255.4	150.6	455.5	295.9	293.2	433.7	217.3	210.7	369.7	193.8	252.9	301.0	3,174.3	5,429.6
10. Public services	381.6	422.4	570.9	1,374.8	129.0	243.5	220.7	199.8	346.6	161.4	124.6	284.3	152.1	159.8	180.5	2,202.3	3,577.1
Defence & Admin	316.2	309.9	379.0	1,005.2	84.4	178.7	136.7	142.6	193.0	112.2	81.0	177.2	99.3	107.2	118.4	1,430.7	2,435.9
Health	14.2	16.9	17.6	48.7	6.4	12.4	17.1	11.9	10.1	6.9	5.9	12.4	7.1	6.8	7.1	114.2	162.9
Education	51.1	95.6	174.3	321.0	38.2	52.3	66.9	45.4	143.5	42.3	37.7	94.8	35.6	45.8	55.0	657.4	978.4
11. Private services	1,382.5	1,019.2	785.7	3,187.4	27.6	57.3	27.2	20.5	60.3	29.8	14.5	25.6	19.9	13.8	19.3	316.0	3,503.4
GDP	17,507.0	23,081.9	19,929.7	60,518.6	4,954.3	5,922.9	5,520.5	4,527.1	11,527.3	6,761.0	4,332.1	6,757.5	3,875.8	4,128.5	3,975.6	62,282.6	122,801.2

GROSS DOMESTIC PRODUCT BY DISTRICT - 2004 Constant price 1996

Rs. Mn

	Galle		Matara		Hambantota		Southern		TOTAL GDP
	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	
1. Agriculture, Forest and Fishing	4,256.0	6,179.7	3,563.2	5,131.8	2,470.9	2,873.1	10,290.1	14,184.7	24,474.8
1.1 Agriculture	879.3	5,703.7	549.8	4,454.2	1,153.3	2,543.7	2,582.5	12,701.5	15,284.0
Tea	17.8	1,738.2	23.5	1,624.5	-	28.0	41.3	3,390.7	3,432.0
Rubber	32.3	407.7	13.3	230.7	-	3.0	45.6	641.4	687.0
Coconuts	18.0	41.0	108.5	230.5	14.0	68.0	140.6	339.4	480.0
Paddy	110.4	623.6	55.8	703.2	449.8	514.2	616.0	1,841.0	2,457.0
Other agriculture	700.8	2,893.2	348.7	1,665.3	689.6	1,930.4	1,739.0	6,489.0	8,228.0
1.2 Forestry and Firewood	1.1	475.9	28.2	676.8	222.3	310.7	251.5	1,463.5	1,715.0
1.3 Fishing	3,375.7	0.1	2,985.2	0.9	1,095.2	18.8	7,456.1	19.7	7,475.8
Coastal	3,375.5	-	2,985.0	-	1,094.0	-	7,454.4	-	7,454.4
Inland	0.2	0.1	0.2	0.9	1.2	18.8	1.7	19.7	21.4
2. Mining and Quarrying	309.8	48.0	223.4	12.9	349.7	50.0	882.9	110.9	993.8
3. Manufacture	2,385.3	2,177	1,943.7	2,205.3	2,404.3	1,022.7	6,733.3	3,445.7	10,179.0
4. Construction	1,226.6	2,623.4	152.2	472.8	132.1	204.9	1,510.8	3,301.2	4,812.0
5. Electricity, Gas & Water	184.7	29.7	132.5	64.8	75.2	12.1	392.4	106.6	499.0
6. Transport, Storage and Communication	3,478.7	2,617.9	1,847.6	1,546.2	1,191.6	1,287.7	6,517.9	5,451.8	11,969.7
Road	2,239.4	2,446.6	1,462.7	1,402.8	1,134.5	1,213.7	4,836.5	5,063.2	9,899.7
Rail	853.7	-	287.1	-	-	-	1,140.8	-	1,140.8
Air	13.3	-	-	-	-	-	13.3	-	13.3
Water	232.0	-	-	-	-	-	232.0	-	232.0
Communication	140.4	171.2	97.8	143.4	57.1	74.0	295.2	388.7	683.9
7. Trade & tourism	8,306.9	225.0	2,702.3	2,010.2	3,245.3	441.0	14,254.6	2,676.2	16,930.7
Trade	7,031.3	-	2,514.8	1,970.2	3,080.8	401.0	12,626.9	2,371.2	14,998.1
Tourism	1,275.6	225.0	187.5	40.0	164.6	40.0	1,627.7	305.0	1,932.7
8. Banking, Insurance and Real Estate	1,163.9	7.1	784.0	275.0	552.6	174.4	2,500.4	456.6	2,957.0
9. Ownership & Dwelling	550.2	491.0	313.4	486.1	285.2	317.1	1,148.8	1,294.2	2,443.0
10. Public services	626.8	1,021.6	393.0	945.9	309.0	631.6	1,328.8	2,599.1	3,927.9
Defence & Admin	426.2	728.8	255.7	678.3	218.6	442.4	900.5	1,849.5	2,750.0
Health	48.6	29.4	24.5	24.5	9.6	20.4	82.7	74.3	157.0
Education	152.0	263.4	112.8	243.1	80.8	168.8	345.7	675.2	1,020.9
11. Private services	695.5	105.0	403.1	57.9	414.4	66.0	1,513.1	228.9	1,742.0
GDP	23,184.5	13,566.1	12,458.4	13,208.9	11,430.2	7,080.7	47,073.2	33,855.7	80,928.9

GROSS DOMESTIC PRODUCT BY DISTRICT - 2004 **Constant price 1996**

Rs. Mn

	Colombo		Gampaha		Kalutara		Western Province		TOTAL GDP
	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	
1. Agriculture, Forest and Fishing	1,043.3	2,004.5	1,608.0	5,577.4	2,054.2	3,705.1	4,705.5	11,287.0	15,992.5
1.1 Agriculture	28.9	1,655.2	142.8	5,105.1	545.2	3,421.2	716.9	10,181.5	10,898.4
Tea	-	8.5	-	-	0.7	415.8	0.7	424.3	425.0
Rubber	-	164.0	-	82.0	36.3	629.1	36.3	875.1	911.4
Coconuts	4.0	361.6	36.2	2,132.9	177.0	373.4	217.2	2,867.9	3,085.1
Paddy	-	119.3	-	152.3	29.7	361.9	29.7	633.4	663.1
Other agriculture	24.9	1,001.8	106.6	2,737.9	301.6	1,641.0	433.0	5,380.7	5,813.8
1.2 Forestry and Firewood	104.9	339.5	58.2	464.1	25.9	244.9	189.0	1,048.5	1,237.5
1.3 Fishing	909.6	9.7	1,407.0	8.2	1,483.1	39.0	3,799.7	56.9	3,856.6
Coastal	909.6	-	1,407.0	-	1,482.0	-	3,798.6	-	3,798.6
Inland	-	9.7	-	8.2	1.1	39.0	1.1	56.9	58.0
2. Mining and Quarrying	-	73.5	430.6	117.6	144.4	65.9	575.0	257.0	832.0
3. Manufacture	30,020.2	19,507.8	11,837.5	31,226.0	7,324.8	8,858.1	49,182.5	59,591.8	108,774.4
4. Construction	8,725.0	10,990.0	1,977.6	13,150.0	2,603.5	5,401.3	13,306.1	29,541.3	42,847.4
5. Electricity, Gas & Water	4,871.5	1,285.5	1,288.2	804.0	2,660.5	747.0	8,820.1	2,779.5	11,599.6
6. Transports, Storage and Communication	30,900.5	11,400.2	8,767.7	24,638.9	7,326.1	7,234.7	46,994.3	43,273.8	90,268.1
Road	24,166.9	9,504.6	5,516.5	18,678.4	4,227.5	4,398.5	33,910.9	32,581.5	66,492.4
Rail	3,384.0	50.0	711.7	2,344.5	1,983.0	-	6,078.7	2,394.5	8,473.2
Air	911.0	-	1,821.0	-	-	-	2,732.0	-	2,732.0
Water	1,014.0	-	-	-	-	-	1,014.0	-	1,014.0
Communication	1,424.6	1,845.6	718.5	3,616.0	1,115.6	2,836.2	3,258.7	8,297.8	11,556.5
7. Trade & tourism	41,367.0	1,379.0	24,340.7	41,184.0	27,020.6	24,983.8	92,728.3	67,546.7	160,275.1
Trade	39,854.0	1,279.0	23,395.7	41,092.0	26,327.6	24,879.7	89,577.3	67,250.7	156,828.0
Tourism	1,513.0	100.0	945.0	92.0	693.0	104.0	3,151.0	296.0	3,447.0
8. Banking, Insurance and Real estate	22,940.7	4,746.3	4,040.4	12,846.0	4,567.0	5,594.2	31,548.1	23,186.4	54,734.5
9. Ownership & Dwelling	6,995.1	3,166.0	1,479.7	6,350.7	2,255.4	3,174.3	10,730.2	12,691.0	23,421.2
10. Public services	4,682.4	4,191.1	1,002.8	5,752.0	1,374.8	2,202.3	7,060.1	12,145.4	19,205.5
Defence & Admin	3,115.5	3,327.5	672.8	3,866.0	1,005.2	1,430.7	4,793.5	8,624.2	13,417.7
Health	577.1	121.9	30.0	156.0	48.7	114.2	655.8	392.1	1,047.9
Education	989.8	741.7	300.0	1,730.0	321.0	657.4	1,610.8	3,129.1	4,739.9
11. Private services	8,814.2	985.8	1,183.0	424.0	3,187.4	316.2	13,184.7	1,726.0	14,910.7
GDP	160,360.1	59,672.5	57,956.1	142,070.6	60,518.6	62,282.8	278,834.9	264,025.9	542,860.7

GROSS DOMESTIC PRODUCT BY DISTRICT - 2004 Constant price 1996

	Ampara		Bataloa		Trincomalee		Eastern		TOTAL
	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	
1. Agriculture, Forest and Fishing	2,665.1	5,193.2	3,159.4	968.5	3,369.7	1,855.4	9,194.2	8,017.2	17,211.4
	1,203.5	4,725.2	1,507.4	851.8	1,925.0	1,549.3	4,635.8	7,126.2	11,762.0
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	6.9	7.0	4.9	2.7	39.7	14.9	51.4	24.6	76.0
	559.3	2,892.8	1,028.0	437.0	764.2	592.7	2,351.5	3,922.5	6,274.0
	637.3	1,825.4	474.5	412.0	1,121.1	941.7	2,232.9	3,179.1	5,412.0
	188.8	459.4	167.4	108.1	471.6	299.6	827.8	867.2	1,695.0
	1,272.8	8.7	1,484.7	8.6	973.1	6.5	3,730.6	23.8	3,754.4
	1,257.0	-	1,473.2	-	952.2	-	3,682.4	-	3,682.4
2. Forestry and Firewood	15.8	8.7	11.5	8.6	20.9	6.5	48.2	23.8	72.0
	125.2	72.0	157.3	20.0	191.1	12.0	473.6	104.0	577.6
	1,281.2	140.9	334.4	65.0	403.4	12.0	2,019.0	217.9	2,236.0
	310.8	541.9	269.8	191.0	302.0	437.6	882.6	1,170.4	2,053.0
	95.2	25.0	80.5	56.0	99.1	6.0	274.8	87.0	361.8
	442.1	278.4	159.3	23.4	416.7	108.8	1,018.0	410.5	1,428.6
	425.5	259.0	106.5	21.7	316.9	77.5	848.8	358.2	1,207.0
	-	-	36.6	-	49.0	25.9	85.5	25.9	111.5
	-	-	-	-	3.0	-	3.0	-	3.0
	5.8	8.7	5.8	-	37.5	-	49.1	8.7	57.8
3. Manufacturing	10.8	10.7	10.4	1.7	10.3	5.3	31.5	17.7	49.3
	1,424.8	109.2	760.6	145.0	3,352.8	110.0	5,538.2	364.2	5,902.4
	1,420.5	105.0	701.2	145.0	3,327.4	110.0	5,449.1	360.0	5,809.1
	4.2	4.2	59.4	-	25.5	-	89.1	4.2	93.3
	227.9	112.1	531.1	15.0	199.6	147.0	958.6	274.0	1,232.6
	229.0	64.2	273.2	44.0	221.2	24.0	723.4	132.2	855.6
	534.4	651.4	521.8	97.1	611.3	230.9	1,667.6	979.4	2,647.0
	380.0	508.9	360.9	72.7	448.6	213.9	1,189.5	795.5	1,985.0
	18.4	11.1	7.6	1.1	12.1	1.6	38.1	13.9	52.0
	136.0	131.4	153.4	23.2	150.6	15.4	440.0	170.0	610.0
4. Services	157.8	85.0	213.8	59.0	186.2	76.0	557.8	220.0	777.8
	7,493.4	7,273.2	6,461.2	1,684.0	9,353.0	3,019.6	23,307.7	11,976.8	35,284.6

Rs. Mn

GROSS DOMESTIC PRODUCT BY DISTRICT - 2004 Constant price 1996

Rs. Mn

	Jaffna		Mannar		Vavuniya		Mullative		Kilinochichi		Northern Province		TOTAL
	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	Coastal	Non Coastal	
1. Agriculture, Forest and Fishing	1,253.0	145.0	1,078.5	110.6			301.4	866.0	1,434.8	547.4	4,067.7	1,669.1	5,736.8
1.1 Agriculture	414.5	129.0	280.5	73.1			203.8	715.9	1,262.3	465.8	2,161.1	1,383.8	3,544.9
Tea	-	-	-	-			-	-	-	-	-	-	-
Rubber	-	-	-	-			-	-	-	-	-	-	-
Coconuts	34.5	3.0	1.9	0.1			0.8	2.4	12.0	10.1	49.1	15.7	64.8
Paddy	254.2	74.8	14.0	5.5			95.2	437.8	458.4	170.6	821.8	688.7	1,510.5
Other agriculture	125.7	51.3	264.6	67.5			107.9	275.6	792.0	285.0	1,290.3	670.3	1,969.6
1.2 Forestry and Firewood	50.9	14.7	88.5	35.5			17.4	135.6	168.0	80.0	324.8	265.8	590.6
1.3 Fishing	787.6	1.3	709.6	2.0			80.1	14.6	4.5	1.6	1,581.8	19.5	1,601.3
Coastal	781.0	-	702.9	-			78.1	-	-	-	1,562.0	-	1,562.0
Inland	6.6	1.3	6.7	2.0			2.0	14.6	4.5	1.6	19.8	19.5	39.3
2. Mining and Quarrying	91.0	29.0	126.7	33.7			55.7	19.5	121.2	46.2	394.6	128.4	523.0
3. Manufacture	1,304.8	95.2	361.3	36.7			152.6	13.4	29.7	46.3	1,848.4	191.6	2,040.0
4. Construction	285.6	242.8	130.8	84.5			24.9	87.6	122.3	110.0	563.5	524.8	1,088.4
5. Electricity, Gas & Water	50.6	24.4	15.2	0.2			4.0	8.0	0.0	0.0	69.9	32.2	102.1
6. Transport, Storage and Communication	1,064.9	164.7	304.2	25.7			14.1	149.4	57.9	33.3	1,441.0	372.1	1,813.1
Road	843.8	156.2	207.6	12.4			14.1	106.0	34.4	32.8	1,099.9	307.4	1,407.3
Rail	26.1	6.3	19.6	9.9			-	32.4	17.9	-	63.6	48.6	112.2
Air	23.0	-	-	-			-	-	-	-	23.0	-	23.0
Water	163.0	-	70.2	-			-	-	-	-	233.2	-	233.2
Communication	9.0	2.2	6.8	3.4			-	11.0	5.5	0.5	21.3	16.1	37.4
7. Trade & tourism	1,768.9	35.0	725.9	70.4			167.7	10.0	448.6	9.2	3,111.1	124.6	3,234.9
Trade	1,748.5	35.0	705.5	70.0			167.7	10.0	448.6	9.2	3,070.3	124.2	3,194.5
Tourism	20.4	-	20.4	0.4			-	-	-	-	40.8	0.4	40.4
8. Banking, Insurance and Realstate	172.9	-	13.4	8.6			13.4	30.6	40.2	3.8	239.8	43.0	282.9
9. Ownership & Dwelling	200.6	9.4	46.5	3.5			12.8	25.2	19.7	11.2	279.5	49.4	328.9
10. Public services	1,343.2	310.5	321.5	27.0			87.5	267.5	134.6	163.6	1,886.7	768.7	2,655.4
Defence & Admin	1,195.3	282.9	277.1	23.4			76.1	248.0	117.6	146.5	1,666.1	700.8	2,366.9
Health	42.7	4.2	7.6	0.5			2.3	4.6	3.5	3.8	56.1	13.1	69.2
Education	105.1	23.5	36.8	3.1			9.1	14.9	13.5	13.3	164.5	54.8	219.3
11. Private services	818.3	81.7	189.6	10.4			52.1	1.6	80.5	17.5	1,140.5	111.2	1,251.7
GDP	8,353.8	1,137.7	3,313.5	411.4			886.0	1,478.9	2,489.5	988.6	15,042.7	4,015.1	19,057.1

GROSS DOMESTIC PRODUCT BY DISTRICT - 2004

Constant price 1996

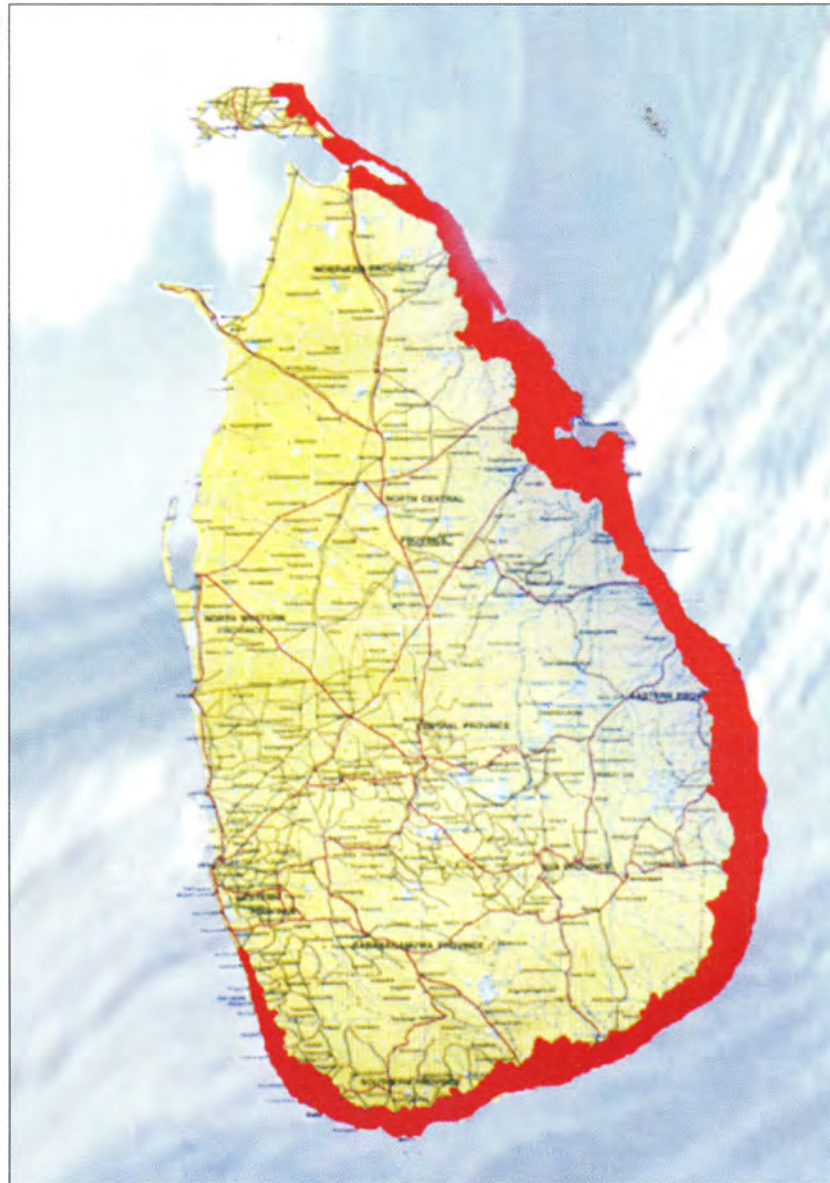
Rs. Mn

Puttalam	Coastal	Non Coastal	Puuttalam District	North-Western Province
1. Agriculture, Forest and Fishing	8,004.8	1,744.8	9,749.7	26,601.0
1.1 Agriculture	2,919.8	1,388.9	4,308.7	18,945.1
Tea	-	-	-	4.9
Rubber	-	-	-	95.4
Coconuts	633.0	301.1	934.1	6,895.7
Paddy	266.1	126.6	392.6	3,401.8
Other agriculture	2,020.7	961.2	2,982.0	8,547.3
1.2 Forestry and Firewood	748.2	355.9	1,104.1	3,238.9
1.3 Fishing	4,336.9	-	4,336.9	4,417.0
Coastal	4,329.0	-	4,329.0	4,329.0
Inland	7.9	-	7.9	88.0
2. Mining and Quarrying	2,021.0	110.0	2,131.0	2,506.9
3. Manufacture	23,765.7	866.0	24,631.7	26,731.7
4. Construction	926.0	537.2	1,463.2	3,258.0
5. Electricity, Gas & Water	380.4	13.9	394.2	780.0
6. Transports, Storage and Communication	7,869.6	34.4	7,904.0	22,299.8
Road	5,770.0	14.1	5,784.0	16,581.9
Rail	148.1	-	148.1	1,284.0
Air	-	-	-	-
Water	24.0	15.6	39.6	39.6
Communication	1,927.5	4.7	1,932.2	4,394.4
7. Trade & tourism	12,160.5	1,020.4	13,180.9	24,059.5
Trade	11,765.2	1,005.7	12,770.9	23,417.9
Tourism	395.3	14.7	410.0	641.7
8. Banking, Insurance and Real estate	1,901.9	1,832.2	3,734.1	7,410.6
9. Ownership & Dwelling	2,161.2	1,238.8	3,400.0	6,744.9
10. Public services	489.1	71.4	560.4	3,862.8
Defence & Admin	323.0	47.1	370.1	2,786.1
Health	47.4	6.9	54.4	154.6
Education	118.6	17.3	136.0	922.2
11. Private services	3,060.0	1,440.0	4,500.0	6,000.0
GDP	62,740.1	10,529.2	70,209.3	130,255.3

3.1 The Tsunami Disaster

Sri Lanka was one of the hardest hit countries by Tsunami which occurred on 26th December 2004 triggered by the most massive earthquake recorded worldwide in 40 years (see figure 3.1). The recorded death toll in Sumatra was greater than 300,000 while Sri Lanka was the second with 38,000. The displacement and loss of livelihood was also very significant

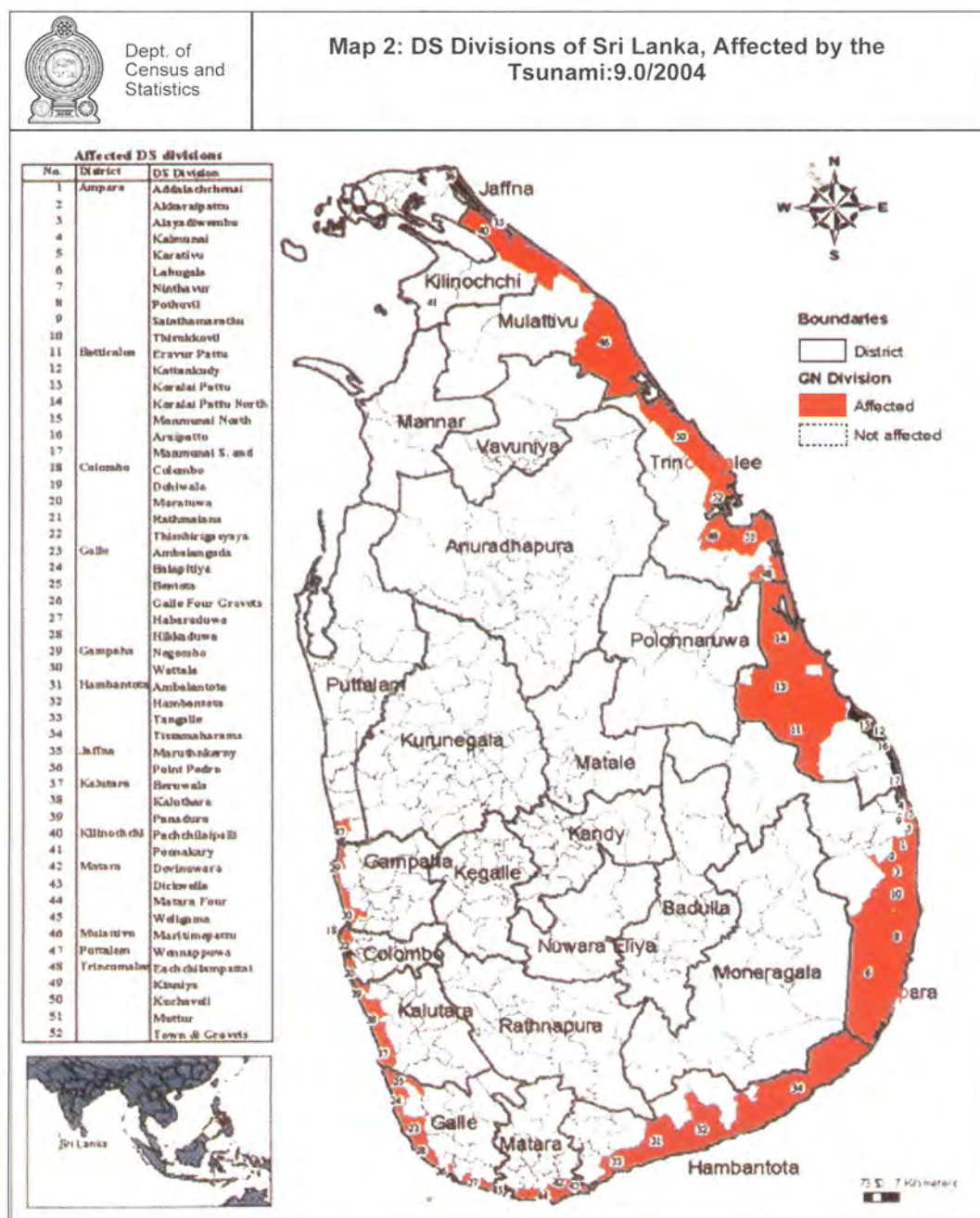
Fig 3.1 Tsunami affected Coastal Areas of Sri Lanka



Source: *Department of National Planning, 2005*

The tsunami damage to the 1700 km long coastal strip of Sri Lanka was enormous. It affected 12 of the 14 coastal administrative districts and figure 3.2 shows the affected Coastal Divisional Secretariat Divisions. The total population of these twelve districts was estimated at 9.8 million and of this 0.9 million (9.1 percent) was affected.

Fig 3.2: The Affected Coastal Divisional Secretariat Divisions



Source: Department of Census and Statistics

Tab 3.1 Tsunami Tidal Wave Lengths and Sea Water Intrusion in Selected Locations

District	G.N. Division/Village	Max. distance of inundation (m)	Approximate wave length (m)
Trincomalee	Kinniya	500	2.5
	Mancholachenai	1000	2
	Dimuthugama	200	1.5
	Cod Bay	100	2.5
	Mineral sands	150	1.5
	Orr's Hill	750	3
	Samudragama	300	1.5
	Muttur	300	8
	Kayankemi		2.5
	Mankerni	750	10
	Uppuveli	800	2.5
	Sampalethivu	500	
	Kuchchaweli	2000	>3
	Nilaweli	1000	>5
	Kumbupddy	500	
	Jayanagar	1500	4
Ampara	Akkarapattuwa	500	
	Addalachchera	200	1.5
	Addalachchena	100	1
	Vinayagopuram	600	10
	Kurukulamadam	1000	12
	Cheeddipalayam	1000	4
	Koddikallar	1200	15
	Maradamunai	800	12
	Kalmunai	1000	10
	Saindamarthu	1000	5
	Oluvil	400	8
	Potuvil		10
	Urani	50	
	Komari	800	7
	Panama	100	6
	Kumanagama	500	8
	Ragamwela	1000	
	Ulla	1000	12
Batticaloa	Oddamaveli		
	Valachcheani	100	1.5
	Paranjamadu	700	4
	Kaluwankeni	700	9
	Punnakuda	1000	10

District	G.N. Division/Village	Max. distance of inundation (m)	Approximate wave length (m)
Hambantota	Punnachchimane	1000	10
	Kathankudi	700	6
	Palamune	1200	6
	Pattanangala	150	7-10
	Yala Safari Hotel	2000 (lagoon)	5-8
	Kirinda	1750 (lagoon)	8-10
	Hambantota GA Office	60	8-11
	Hambantota Mosque	2500 (lagoon)	9-10
	Ussangoda	700	6-8
	Wanduruppa	1400	6-8
	Bundala Saltern	2250 (lagoon)	7-8
	Mahalewaya	1750 (lagoon)	4-6
	Hambantota town	2500 (lagoon)	6-8
	Ratupasgodella	2500 (lagoon)	8-10
	Kalametiya Sanctuary	3500 (lagoon)	6-8
	Gurupokuna Haroo	3500 (lagoon)	4-6
	Kahandamodara	200	8-10
	Wellaodaya	650	7-8
	Kandaparei	100	3-5
	Marakolliya	1100	-
	Tangalle town	500	5-7
	Tangalle Harbour	100	5-6
	Pallikudawa	300	5-6
	Unakuruwa	300	5-6
	Seenimodara	500	4-6
	Mawella	1500	4-6
	Kudawella	400	4-6
	Modarawatta	400	6-8
	Hummanaya	150	6-8
Matara	Kudawella South	400	4-6
	Nilwella	400	4
	Dickwella	900	4-6
	Batigama	250	4
	Polgahamula, 178	1000	4
	Talalla	1100	4-6
	Kottegoda	900	6
	Gandora	100	4-6
	Devinuwara	350	4
	Matara town	700	6-8
	Matara, Paramulla	650	4-6
	Polhena	700	4-6
	Kamburugamuwa	400	4-6
	Weligama town	900	4-6

District	G.N. Division/Village	Max. distance of inundation (m)	Approximate wave length (m)
Puttlam	Sindathriya	800	3-4
Gampaha	Wellaweediya	100	2
Colombo	Uswetakeiyawa	No	No
	Mattakkuliya	750	3-4
	Modara	50	3
	Bambalapitiya	15	No
	Wellawatte	15	No
	Dehiwala	40	3
	Mount Lavinia	150	2
	Ratmalana	30	1
	Angulana	50	2
	Lunawa	20	1
	Egodauiyana	100	3
	Moratuwa-Modara	100	3
	Panadura	100	3
	Wadduwa	200	3
	Pinwatta	40	1.5
	Kalutara-North	150	2.5
	Kalamulla	300	4.5
	Payyagala	750	5
	Maggonna	200	3
	Beruwela	50	1.5
	Kaluwamodara		
Galle	Bentota		5
	Induruwa		
	Kosgoda	750	6
	Ahungalle	250	3
	Pathegangoda	1000	6-7
	Balapitiya-Madugaga	50	1-2
	Randomba-South	600	6
	Ambalangoda	100	6
	Akurala	2000	6-7
	Kahawa	1100	6
	Pareliya	2000	7-8
	Hikkaduwa	750	4
	Dodanduwa	100	3
	Boosa	50	1.5
	Mahamodara	100	3
	Galle	1000	6
	Magalla	1000	6

District	G.N. Division/Village	Max. distance of inundation (m)	Approximate wave length (m)
	Katugoda	800	8
	Unawatuna	850	6-7
	Talpe	200	3-4
	Habaraduwa	100	2-3
	Koggala	150	2-3
	Kataluwa	500	3
	Imaduwa	150	2
	Denuwala	250	3-4
	Kumbalgama	15	4

Fisheries, Tourism, Residential, Urban Centres, Agriculture, Industries, and Coastal Infrastructure were the major areas that suffered extensive damage. The Tsunami also had significant negative impacts on the coastal habitats and ecosystems. Several development partners (ADB, FAO, and UNDP), the government, IUCN, NGOs etc. conducted damage assessment studies. Some studies covered only physical damage while some estimated the financial damage.

The degree of destruction of the Tsunami event conducted by the Geological Survey and Mines Bureau (GSMB) classified the damage as high, moderate, slight and no damage in the coastal districts. According to them, certain coastal locations in the Eastern and Northern Provinces (Trincomalee, Ampara, Mullaitivu); Southern Province (Matara, Galle, Hikkaduwa, Hambantota) was high. Damage in the Western Province (Gampaha, Kalutara and Colombo) were slight while the damage in the North-Western province was also slight or no damage.

The heights of the wave at the beach were inferred from indirect evidence such as water marks shown in houses and other constructions and retained Tsunami debris. The highest wave height occurred in Koddigar (15 meters) in the Ampara District and 12 m each at Kurukulamadam near Ampara and Hambantota town, 10 m heights occurred at Mankerni (near Trincomalee), Potuvil, Punnakadu (Batticaloa), Pattanangala, Kirinda, Ratupasgodella, while Kahandamodara and Peraliya showed 8 meters.

The distance of the Tsunami salt water intrusion varied considerably from few meters to 3.5 meters inland. The maximum inundation was recorded at 2 km in Batticaloa and Kuchchaweli in Trincomalee. In Peraliya (Southern Province) inundation was reported about 2 km inland. On the Southern coast, the inundation limit went to about 3.5 km in the lagoon system.

It has been revealed that there is a positive correlation in the Tsunami damage, inundation and wave heights.

3.2 The Physical and Financial Damage due to Tsunami

3.2.1 The Fisheries Sector

The marine and brackish water fisheries is concentrated in the coastal region and was adversely damaged by the Tsunami. Marine fishing has been the most severely affected sector. It has been estimated that about 27,000 fishermen and their family members died and of this largest number (approximately about 20,000) in the North and East. Further, about 90,000 fisher families were displaced due to loss of housing and their household assets.

According to the assessments of the Ministry of Fisheries, about three fourths of the fishing fleet of 32,000 boats was either damaged or fully destroyed (see table 3.2).

Table 3.2 Fisheries affected by Tsunami (2004 December)

District	No. of Households	Fishermen	Fishing boats		Total
			Damaged	Destroyed	
Jaffna	4,998	4,488	741	2,246	2,987
Kilinochchi	2,089	586	18	168	186
Mullaitivu	2,224	2,112	-	1,784	1,784
Trincomalee	8,487	7,537	1,439	4,135	5,574
Batticaloa	10,372	9,956	731	2,605	3,336
Ampara	6,535	6,270	547	1,881	2,428
Hambantota	6,086	4,618	696	1,134	1,830
Matara	7,147	6,461	1,105	763	1,868
Galle	7,157	4,989	561	841	1,402
Kalutara	2,823	2,992	381	379	760
Colombo	2,601	1,712	269	52	321
Gampaha	6,230	8,571	398	74	472
Puttalam	6,993	6,509	211	35	246
Manar	854	-	8	4	12
Total	74,596	66,801	7,105	16,101	23,206

Source: *Fisheries Sector Damage Assessment Survey 2005 MFAR*

The Food and Agriculture Organization has estimated the loss of fish production due to tsunami damaged/ destroyed and this is given in table 3.2

Table 3.3 Fish Production loss due to Tsunami

	Mean Annual Production	No. of boats Destroyed (DS)	No. of Boats Damaged (DM)	Production loss due to DS	Production loss due to DM	Total Loss (T)
Offshore Multi Day Boats	62.4	187	676	11,669	10,546	22,215
3.5 ton Day Boats	10.2	276	783	6,017	4,267	10,284
6-7 FRP	5.2	4,480	3,211	45,696	8,188	45,884
Motorized Traditional Craft	1.5	-	-	-	-	-
Non-Motorized Traditional Craft	1.5	11,158	2,435	8,369	913	9,282
Beach-Seine Craft	350	818	161	14,315	1,409	15,724
Total		16,919	7,266	86,066	25,323	111,389

Source: *FAO Assessment 2006*

The total fish production lost due to the Tsunami is 111,389 metric tons.

It has been reported that extensive damage was caused to ten fishery harbours, 37 anchorages, and 200 landing sites along the coastal strip. The other affected areas were the fish handling facilities, fishery cooperatives, buildings, ice plants, cold stores, boat repair yards etc.

The fish marketing network of the island at Galle, Matara, Hambantota and related outlets belonging to the Ceylon Fisheries Corporation and private traders also sustained heavy damage. The estimated damage according to the ADB report in the fisheries sector was Rs. 10.1 billion.

3.2.2 The Tourism Sector

Tourism is one of the most important economic activities in the coastal region. The coastal areas of Sri Lanka are known as popular tourist destinations due to sandy beaches, coastal habitats, blue water and other tourist attractions. Southern, Eastern, Western and North –Western are the coastal provinces that tourism is concentrated and except in the North-Western Province, Tsunami caused extensive damage to tourist industry in other three provinces.

Tourist hotels, small guest houses, tourism-related assets (souvenir shops, vehicles) and infrastructure were damaged due to the Tsunami. The Ministry of Tourism conducted a survey to assess the damage based on losses to the value of over Rs. 10 million and Rs. 5 million in these affected three provinces and the results are useful to estimate the value addition loss in 2005. The damage is shown in table 3.2. The estimated damage according to the ADB report to the tourism sector was Rs. 26.2 billion.

Table 3.4 Impact of Tsunami on Tourism Related Industries Value over Rs. 10 million

Province	No. of Hotels	Damage Estimations (Rs. mn)
Large Scale		
Eastern	2	1364.4
Southern	9	358.0
Western	10	972.9
Medium Scale		
Eastern	1	717
Southern	10	510.6
Western	11	354.8
Total	43	3622.6

Source: *Ministry of Tourism*

Further, Rs. 147.94 mn damage was sustained by the tourism related industries for tourism related assets. Damage for tourist assets valued less than Rs. 10 mn was assessed as Rs. 1,466.5 mn. The damage to tourist related infrastructure was Rs. 269.7 million.

3.2.3 Agriculture and Livestock Sector

Table 3.5 Damage to the Agriculture Sector

District	Area (ha)			Livestock (No.)		
	Paddy	OFC	Others	Cattle & Buffaloes	Goats	Poultry
Jaffna	92.5	47.8	1	280	2,025	2,800
Kilinochchi	-	-	-	-	-	-
Mullaitivu	706	39	10	315	670	1,650
Trincomalee	80	168	182	790	2,450	11,020
Batticaloa	44.5	12.5	315.8	2,585	3,900	28,140
Ampara	2,061	-	-	2,450	3,760	39,420
Hambantota	262	2	51.3	772	366	2,694
Matara	113.5	-	9.0	44	71	4,831
Galle	160	-	107	56	85	22,220
Kalutara	0.1	5.0	-	-	-	-
Total	3359.6	269.3	681.1	7,292	13,327	112,775

Source: *FAO Assessment 2006*

The damage to the agriculture and livestock sector is mainly confined to standing crops (paddy, field crops) & livestock and home gardens. The salt water intrusion caused washing away of these items and induced high level of soil salinity which is unsuitable for crop cultivation for many years. Table 3.3 shows the damage to the agriculture sector caused by tsunami. The damage to the agriculture and livestock sector estimated by ADB was Rs. 304 million.

The damage caused to the coconut trees by the Tsunami is minimal. It has been reported that young coconut palms aged around 3.4 years were destroyed to a certain extent only in the eastern coast. Some coconut related industries such as coir fibre industries were destroyed (Proceedings of the workshop to develop strategies for advancement of Agriculture sector in Tsunami affected areas of Sri Lanka – March 2006. FAO).

Furthermore, the salty water that came in to the land with waves did not cause any harm to the coconut yield or falling of nuts indicating no effect to the coastal GDP.

3.2.4 Infrastructure and Service sector in Pre and Post-Tsunami Situation

The coastal region has well developed infrastructure and service sector network and certain sub sectors were damaged/destroyed due to Tsunami. A detailed study (micro level) on the damage and recovery needs is not available. However, the study report prepared by the Asian Development Bank, Japan Bank for International Cooperation and World Bank (2005) provides the damage and recovery needs. The total damage due to Tsunami for all the sectors was U.S.\$ billion 970-1000. Summary of their findings is given below.

3.2.4. Preliminary estimation of Losses (U.S.\$ Million)

Sector	Loss
Housing	306-341
Roads	60
Water and Sanitation	42
Railways	15
Education	26
Health	60
Agriculture	3
Fisheries	97
Tourism	250
Power	10
Environment	10
Excluded items and contingency	90
Total	970-1000

Source: *Asian Development Bank, Japan Bank for International Cooperation and World Bank (2005)*

The damage to the service and infrastructure sectors is as follows.

The Education Sector: One hundred and sixty eight(168), public schools, four Universities, 18 Vocational/Industrial training centers have been damaged /destroyed. The damage includes school buildings, equipment, machinery, tools, furniture, books, teaching materials etc.

The Health Sector: Health related infrastructure, human resources and loss of services are the main areas of the damage. 92 local clinics and hospitals and drug stores were damaged/destroyed.

Housing: The total number of houses fully damaged was 99480 while 44,290 uses were partially damaged. The percentage of damaged housing stock in the coastal region was about 13.

Power: Damage largely confined to medium and low. Voltage distribution lines and transformers in the coastal areas were damaged. About 70,000 of the electricity supply were interrupted.

Water supply and Sanitation: Fourteen districts of the Tsunami affected areas were affected. Around 1200 wells were damaged due to salt water intrusion. In Colombo area seven pipe lines were damaged.

Transport: About 20 Km of the Southern rail corridor (beyond Kalutara) was damaged. Embankments, track, buildings culverts etc. were damaged.

Roads: The national road net work (Classes A and B), totaling 690 kilometers, and Provincial roads Km700 (C, D,E) and 11100 meter of local government roads were damaged. The damaged roads represented 5% of the national road, and 2 % of the local government road net work. Also a substantial number of bridges, culverts damaged and dilapidated.

3.2.5 Impact on Coastal Environment

The coastal habitats were extensively damaged due to the Tsunami tidal waves and salt water intrusion along the coastal strip. The shoreline was severely affected, eroded and covered with debris. Once the sea water returned to the Ocean, sand and sediment washed from land were deposited on the near shore and low lying areas. Coral reefs, mangroves and other coastal ecosystems suffered at varying levels due to Tsunami waves and debris accumulation. It has been reported that a total of 38 protected areas covering sanctuaries, wetlands, and national parks were severely affected. According to the FAO assessment, the damage due to Tsunami in the SAM sites and coastal environment was around US\$ 32 million.

3.3 Different Sectors of the Coastal GDP in 2005 and the Coastal Environment

3.3.1 National and Coastal GDP

The national GDP in 2005 has been disaggregated into coastal GDP and compared with the 2004 GDP estimates.

Table 3.7 shows the coastal GDP in 2004 and 2005 with the national GDP while Table 3.9 shows the loss of GDP in major economic sector in 2005 by Tsunami in 2004.

Table 3.7 National and Coastal GDP in 2004 and 2005 (1996 Constant Prices)

Rs. Mn				
Sector	National GDP 2004	Coastal GDP 2004	National GDP 2005	Coastal GDP 2005
1. Agriculture, Forestry and Fishing	175,851.1	36,262.3	179,156.0	26542.0
1.1 Agriculture	135,964.1	13,016.0	148,590.0	12906.7
Tea	12,315.0	41.9	12,628.0	44.9
Rubber	3,370.0	81.9	3,735.0	87.7
Coconuts	12,212.9	1091.2	12,628.0	1169.1
Paddy	25,151.6	4085.0	31,279.0	3965.7
Other Crops	82,914.6	7715.9	88,320.0	7639.3
1.2 Forestry and Firewood	17,109.5	2341.2	17,400.0	2341.2
1.3 Fishing	22,777.4	20,905.1	13,166.0	11,294.0
Coastal	20,826.4	20,826.4	11,215.0	11,215.0
Inland	1951.0	78.7	1,951.0	79.0
2. Mining and Quarrying	16,944.9	4,347.1	19,335.0	3760.1
3. Manufacture	159,721.0	83,548.9	169,337.0	81305.9
4. Construction	68,332.3	17,189.0	74,414.0	18,416.2
5. Electricity, Gas & Water	14,286.8	9,937.4	17,610.0	10,646.9
6. Transport, Storage and Communication	142,727.8	63,840.9	160,882.0	68398.6
Road	106,994.0	46,466.1	120,603.0	49783.5
Rail	14,061.5	7,516.8	15,850.0	8053.5
Air	2,771.3	2,771.3	3,124.0	2,969.1
Water	1,598.0	1,552.3	1,801.0	1,663.1
Communication	17,303.0	5,534.3	19,506.0	5929.4
7. Trade & Tourism	219,040.3	127,792.6	224,652.0	120526.1
Trade	212,410.6	122,488.8	219,699.0	115856.8
Tourism	6,629.7	5303.8	4,953.0	4669.3
8. Banking, Insurance and Real-estate	73,952.0	37,148.8	78,767.0	39,800.9
9. Ownership & Dwelling	40,709.3	15,043.1	43,359.0	14713.1
10. Public Services	42,985.4	12,432.3	45,180.0	13039.8
Defense and Admin.	31,063.6	8,872.6	32,649.6	9506.0
Health	1917.1	880.1	2,015	871.0
Education	10,004.6	2679.6	10,515.0	2,662.0
11. Private Services	26,169.1	19,456.1	27,723.0	19206.1
GDP	980,719.8	426,998.6	1,039,734.0	416356.3

Source: Central Bank of Sri Lanka and Estimations of the Study

Table 3.8 Percentage Contribution to National GDP (1996 Constant prices)

Sector	National GDP 2004	Coastal GDP 2004	National GDP 2005	Coastal GDP 2005
1. Agriculture, Forestry and Fishery	36,262.3	26542.0	8.49	6.4
1.1 Agriculture	13,016.0	12906.7	3.05	3.1
Tea	41.9	44.9	0.009	0
Rubber	81.9	87.7	0.019	0
Coconuts	1091.2	1169.1	0.26	0.3
Paddy	4085.0	3965.7	0.96	1.0
Other Crops	7715.9	7639.3	1.81	1.8
1.2 Forestry and Firewood	2341.2	2341.2	0.55	0.6
1.3 Fishery	20,905.1	11,294.0	4.9	2.7
Coastal	20,826.4	11,215.0	4.9	2.7
Inland	78.7	79.0	0.02	0
2. Mining and Quarrying	4,347.1	3760.1	1.02	0.9
3. Manufacture	83,548.9	81305.9	19.6	19.6
4. Construction	17,189.0	18,416.2	4.0	4.4
5. Electricity, Gas & Water	9,937.4	10,646.9	2.3	2.6
6. Transport, Storage and Communication	63,840.9	67912.7	14.9	16.3
Road	46,466.1	49783.5	10.9	11.9
Rail	7,516.8	8053.5	1.8	1.9
Air	2,771.3	2,969.1	0.65	0.7
Water	1,552.3	1,663.1	0.36	0.4
Communication	5,534.3	5929.4	1.3	1.5
7. Trade & Tourism	127,792.6	120526.1	29.9	29.0
Trade	122,488.8	115856.8	28.7	27.9
Tourism	5303.8	4669.3	1.24	1.1
8. Banking, Insurance and Real-estate	37,148.8	39,800.9	8.7	9.6
9. Ownership & Dwelling	15,043.1	14713.1	3.5	3.5
10. Public Services	12,432.3	13039.8	2.9	3.1
Defense and Admin.	8,872.6	9506.0	2.1	2.3
Health	880.1	871.0	0.21	0.2
Education	2679.6	2,662.0	0.63	0.6
11. Private Services	19,456.1	19206.1	4.6	4.6
GDP	426,998.6	416356.3		

Source: *Central Bank of Sri Lanka and Estimations of the Study*

The loss of GDP in trade and tourism in 2005 was Rs.6632.0 mn. Of which 91 percent was shared by Gall, Matara, Kalutara and Hanbantota Districts.

The Ownership and Dwelling sector showed a decline of Rs.330 mn in 2005 reflecting 2.2 percent was lower than the value of GDP in 2004.

Public Service sector has increased from Rs. 12432.3 in 2004 to Rs.13039.0 mn in 2005 showing 4.8 percent larger than the GDP value in 2004 .Conversely, the sub-sectors such as government Health and Government education sectors decreased by 0.6 and 1.3 percent respectively.

The GDP contribution of Private Sector in 2004 was Rs. 19451.1 mn in 2004 and it decreased to Rs. 19206.1 mn in 2005 reflecting 1.3 percent decline.

Fig 3.1 Coastal and Non-Coastal GDP in 2004

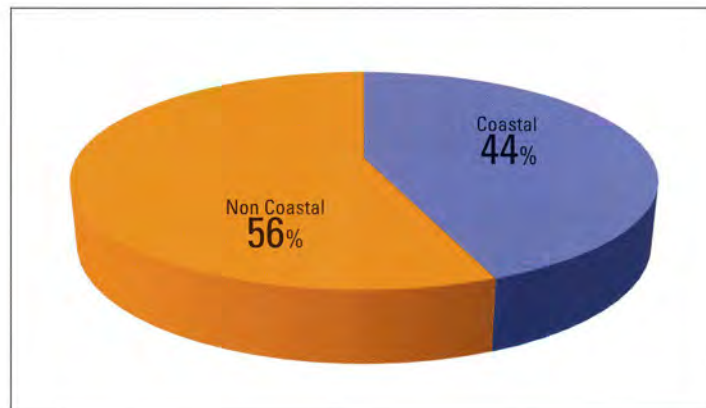


Fig 3.2 Coastal and Non-Coastal GDP in 2005

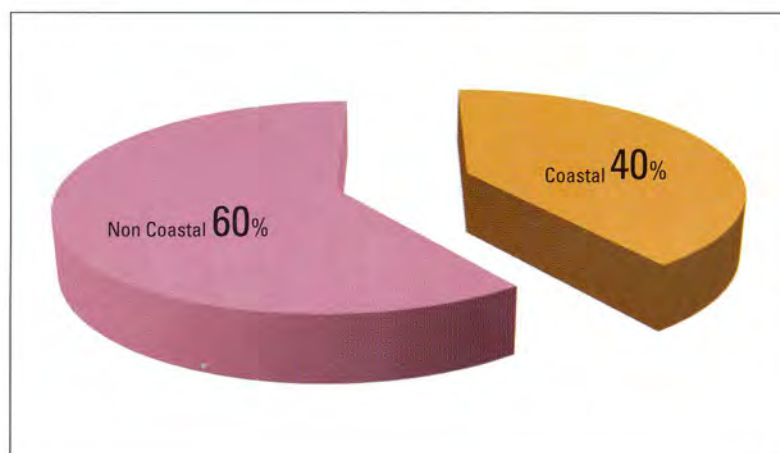


TABLE 3.8A
COASTAL GROSS DOMESTIC PRODUCT BY DISTRICT 2004
Constant 1996 price

	Colombo	Gampaha	Kalutara	Galle	Matara	Hambantota	Puttalam	Jaffna	Mannar	Mullative	Killinochi	Amparai	Batticaloa	Trincomalee	Total GDP
1. Agriculture, Forest and Fishing	1043.3	1608.0	2054.2	4256.0	3563.2	2470.9	8004.8	1253.0	1078.5	301.4	1434.8	2665.1	3159.4	3369.7	36262.3
1.1 Agriculture	28.9	142.8	545.2	879.3	549.8	1153.3	2919.8	414.5	280.5	203.8	1262.3	1203.5	1507.4	1925.0	13016.0
Tea	0.0	0.0	0.7	17.8	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.9
Rubber	0.0	0.0	36.3	32.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.9
Coconuts	4.0	36.2	177.0	18.0	108.5	14.0	633.0	34.5	1.9	0.8	12.0	6.9	4.9	39.7	1091.2
Paddy	0.0	0.0	29.7	110.4	55.8	449.8	266.1	254.2	14.0	95.2	458.4	559.3	1028.0	764.2	4085.0
Other agriculture	24.9	106.6	301.6	700.8	348.7	689.6	2020.7	125.7	264.6	107.9	792.0	637.3	474.5	1121.1	7715.9
1.2 Forestry and Firewood	104.9	58.2	25.9	1.1	28.2	222.3	748.2	50.9	88.5	17.4	168.0	188.8	167.4	471.6	2341.2
1.3 Fishing	909.6	1407.0	1483.1	3375.7	2985.2	1095.2	4336.9	787.6	709.6	80.1	4.5	1272.8	1484.7	973.1	20905.1
Coastal	909.6	1407.0	1482.0	3375.5	2985.0	1094.0	4329.0	781.0	702.9	78.1	0.0	1257.0	1473.2	952.2	20826.4
Inland	0.0	0.0	1.1	0.2	0.2	1.2	7.9	6.6	6.7	2.0	4.5	15.8	11.5	20.9	78.7
2. Mining and Quarrying	0.0	430.6	144.4	309.8	223.4	349.7	2021.0	91.0	126.7	55.7	121.2	125.2	157.3	191.1	4347.1
3. Manufacture	30020.2	11837.5	7324.8	2385.3	1943.7	2404.3	23765.7	1304.8	361.3	152.6	29.7	1281.2	334.4	403.4	83548.9
4. Construction	8725.0	1977.6	2603.5	1226.6	152.2	132.1	926.0	285.6	130.8	24.9	122.3	310.8	269.8	302.0	17189.0
5. Electricity, Gas & Water	4871.5	1288.2	2660.5	184.7	132.5	75.2	380.4	50.6	15.2	4.0	0.0	95.2	80.5	99.1	9937.4
6. Transports, Storage and Communication	30900.5	8767.7	7326.1	3478.7	1847.6	1191.6	7869.6	1064.9	304.2	14.1	57.9	442.1	159.3	416.7	63840.9
Road	24166.9	5516.5	4227.5	2239.4	1462.7	1134.5	5770.0	843.8	207.6	14.1	34.4	425.5	106.5	316.9	46466.1
Rail	3384.0	711.7	1983.0	853.7	287.1	0.0	148.1	26.1	19.6	0.0	17.9	0.0	36.6	49.0	7516.8
Air	911.0	1821.0	0.0	13.3	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	3.0	2771.3
Water	1014.0	0.0	0.0	232.0	0.0	0.0	24.0	163.0	70.2	0.0	0.0	5.8	5.8	37.5	1552.3
Communication	1424.6	718.5	1115.6	140.4	97.8	57.1	1927.5	9.0	6.8	0.0	5.5	10.8	10.4	10.3	5534.3
7. Trade & tourism	41367.0	24340.7	27020.6	8306.9	2702.3	3245.3	12160.5	1768.9	725.9	167.7	448.6	1424.8	760.6	3352.8	127792.6
Trade	39854.0	23395.7	26327.6	7031.3	2514.8	3080.8	11765.2	1748.5	705.5	167.7	448.6	1420.5	701.2	3327.4	122488.8
Tourism	1513.0	945.0	693.0	1275.6	187.5	164.6	395.3	20.4	20.4	0.0	0.0	4.2	59.4	25.5	5303.8
8. Banking, Insurance and Real Estate	22940.7	4040.4	4567.0	1163.9	784.0	552.6	1901.9	172.9	13.4	13.4	40.2	227.9	531.1	199.6	37148.8
9. Ownership & Dwelling	6995.1	1479.7	2255.4	550.2	313.4	285.2	2161.2	200.6	46.5	12.8	19.7	229.0	273.2	221.2	15043.1
10. Public services	4682.4	1002.8	1374.8	626.8	393.0	309.0	489.1	1343.2	321.5	87.5	134.6	534.4	521.8	611.3	12432.3
Defence & Admin	3115.5	672.8	1005.2	426.2	255.7	218.6	323.0	1195.3	277.1	76.1	117.6	380.0	360.9	448.6	8872.6
Health	577.1	30.0	48.7	48.6	24.5	9.6	47.4	42.7	7.6	2.3	3.5	18.4	7.6	12.1	880.1
Education	989.8	300.0	321.0	152.0	112.8	80.8	118.6	105.1	36.8	9.1	13.5	136.0	153.4	150.6	2679.6
11. Private services	8814.2	1183.0	3187.4	695.5	403.1	414.4	3060.0	818.3	189.6	52.1	80.5	157.8	213.8	186.2	19456.1
GDP	160360.1	57956.1	60518.6	23184.5	12458.4	11430.2	62740.1	8353.8	3313.5	886.0	2489.5	7493.4	6461.2	9353.0	426998.6
as a percentage of total	37.6	13.6	14.2	5.4	2.9	2.7	14.7	2.0	0.8	0.2	0.6	1.8	1.5	2.2	

TABLE 3.8B
COASTAL GROSS DOMESTIC PRODUCT BY DISTRICT 2005
(Constant 1996 price)

	Colombo	Gampaha	Kalutara	Galle	Matara	Hambantota	Puttalam	Jaffna	Mannar	Mullative	Killinochi	Amparar	Baticaloa	Trincomalee	Total
1. Agriculture, Forest and Fishing	1129.7	1743.7	935.9	1639.2	1282.7	1605.6	8459.6	654.3	1145.2	213.3	1429.7	1652.8	2020.3	2629.9	26541.9
1.1 Agriculture	29.1	145.4	560.2	843.8	552.0	1124.8	2964.9	413.0	280.6	175.5	1257.2	1152.3	1494.8	1913.3	12907.0
Tea	0.0	0.0	0.7	19.1	25.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.9
Rubber	0.0	0.0	38.9	34.6	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.7
Coconuts	4.3	38.8	189.6	19.3	116.3	15.0	678.2	37.0	2.0	0.8	12.8	7.4	5.2	42.5	1169.1
Paddy	0.0	0.0	29.7	102.2	50.4	436.2	266.1	250.9	14.0	67.4	452.4	507.7	1026.9	762.2	3966.0
Other agriculture	24.9	106.6	301.4	668.6	346.0	673.6	2020.7	125.1	264.6	107.3	792.0	637.3	462.8	1108.5	7639.3
1.2 Forestry and Firewood	104.9	58.2	25.9	1.1	28.2	222.3	748.2	50.9	88.5	17.4	168.0	188.8	167.4	471.6	2341.2
1.3 Fishing	995.7	1540.1	349.8	794.4	702.5	258.6	4746.5	190.4	776.1	20.4	4.5	311.6	358.1	245.0	11293.7
Coastal	995.7	1540.1	348.7	794.1	702.3	257.4	4738.6	183.7	769.4	18.4	0.0	295.7	346.6	224.0	11214.7
Inland	0.0	0.0	1.1	0.2	0.2	1.2	7.9	6.6	6.7	2.0	4.5	15.9	11.6	20.9	79.0
2. Mining and Quarrying	0.0	409.6	46.4	170.8	133.4	223.7	2021.0	67.0	126.7	46.7	109.2	104.2	128.3	173.1	3760.1
3. Manufacture	29918.2	11835.5	6464.8	1453.3	1770.7	2313.6	23765.7	1255.5	361.3	146.9	28.6	1267.2	328.4	395.4	81305.0
4. Construction	8795.4	2118.8	2789.4	1314.2	531.3	325.7	992.1	306.0	140.1	26.7	131.0	333.0	289.0	323.6	18416.2
5. Electricity, Gas & Water	5163.7	1330.9	2746.9	308.8	142.0	127.8	407.5	54.2	16.3	4.3	0.0	102.0	138.4	106.2	10649.0
6. Transports, Storage and Communication	33106.6	9393.7	7849.1	3727.1	1979.5	1276.7	8431.5	1140.9	325.9	15.1	62.0	473.6	170.7	446.4	68398.6
Road	25892.3	5910.4	4529.3	2399.2	1567.1	1215.5	6181.9	904.0	222.4	15.1	36.8	455.9	114.1	339.5	49783.5
Rail	3625.6	762.6	2124.5	914.7	307.6	0.0	158.7	28.0	21.0	0.0	19.2	0.0	39.2	52.4	8053.5
Air	976.0	1951.0	0.0	14.2	0.0	0.0	0.0	24.6	0.0	0.0	0.0	0.0	0.0	3.2	2969.1
Water	1086.4	0.0	0.0	248.6	0.0	0.0	25.7	174.6	75.2	0.0	0.0	6.2	6.2	40.2	1663.1
Communication	1526.3	769.8	1195.2	150.4	104.8	61.1	2065.1	9.7	7.3	0.0	5.9	11.6	11.2	11.0	5929.4
7. Trade & tourism	41113.6	24152.0	24118.7	6265.3	1662.0	2878.0	12160.5	1663.5	725.9	157.6	421.6	1338.6	717.9	3151.1	120526.1
Trade	39797.0	23329.7	23515.6	5155.3	1510.8	2734.8	11765.2	1643.1	705.5	157.6	421.6	1334.9	659.0	3126.8	115956.8
Tourism	1316.6	822.3	603.0	1110.0	151.2	143.2	395.3	20.4	20.4	0.0	0.0	3.7	58.9	24.3	4669.3
8. Banking, Insurance and Real Estate	23367.1	4328.8	5253.7	2021.9	915.4	592.0	2037.7	185.2	14.3	14.3	43.0	244.1	569.1	213.8	39800.6
9. Ownership & Dwelling	6967.1	1360.9	2157.4	563.5	237.4	277.9	2161.2	198.5	46.5	12.4	19.2	226.2	270.2	215.5	14713.8
10. Public services	4904.9	1050.9	1445.8	652.8	405.4	320.7	512.1	1425.8	341.2	92.3	142.2	559.4	545.5	640.1	13039.0
Defence & Admin	3337.9	720.8	1076.9	456.6	274.0	234.2	346.0	1280.7	296.9	81.5	126.0	407.1	386.7	480.6	9506.0
Health	577.1	30.0	48.7	47.2	22.7	8.3	47.4	41.9	7.6	2.1	3.3	17.2	6.8	10.7	871.0
Education	989.8	300.0	320.2	148.9	108.7	78.2	118.6	103.2	36.8	8.7	12.9	135.1	152.1	148.7	2662.0
11. Private services	8802.2	1177.9	3109.1	609.3	355.7	408.0	3060.0	814.3	189.6	51.3	79.3	155.3	210.5	183.3	19206.0
TOTAL COASTAL GDP	163268.6	58902.6	56917.1	18726.1	9415.6	10349.6	64008.8	7765.3	3433.0	780.9	2465.7	6456.4	5388.2	8478.3	416356.4
As a percentage of the Total	39.2	14.1	13.7	4.5	2.3	2.5	15.4	1.9	0.8	0.2	0.6	1.6	1.3	2.0	100.0

Fig. 3.1 and 3.2 shows the coastal and non-coastal GDP during 2004 and 2005. According to these figures, the contribution from the coastal region in 2004 was 44 percent and this declined to 40 percent in 2005. The loss of production in fishery and tourism sectors due to Tsunami was the major reason for this situation.

3.3.2 The Impact of Tsunami in 2005 on Major Economic Sectors

The study has analyzed the Tsunami impact on the economic sectors in the coastal region. The economic sectors viz: Agriculture, Forestry and Fishing, Mining and Quarrying, Manufacturing, Trade and Tourism, Ownership and Dwelling, and Public and Private Services were the major economic sectors used in the analysis. Table 3.9 depicts that the total loss value of GDP by in 2005 was Rs 22481.4 mn reflecting 2.2 percent of the GDP at national level .

Table 3.9 Loss of Coastal GDP in 2005

Sector	Loss of Coastal GDP 2005 Rs. mn	As a % of Total
Agriculture		
Paddy	119.3	0.53
Other Crops	76.6	0.34
Fishery		
Coastal	11582.3	51.5
Inland		
Mining and Quarrying	587.0	2.6
Manufacture	2243.0	10.0
Trade & Tourism	7266.0	32.3
Trade	6632.0	29.4
Tourism	634.0	2.3
Ownership & Dwelling	330.0	1.5
Public Services		
Defense and Admin.		
Health	9.1	0.04
Education	17.6	0.08
Private Services	250.0	1.11
GDP	22481.4	100.0

Source: *Estimated by the Author*

The Fishing sub sector marked the 51.5 percent as loss of GDP in coastal region while Trade and Tourism sector showed that the loss was 32.2 percent in 2005. Trade sector recorded Rs. 6632 mn loss of GDP and it contained tourism related trade such as Gems and Jewelry, Leather products and textile etc. Loss of GDP in manufacturing sector was Rs. 2243 mn showing 10 percent of the total loss of the GDP in coastal region. Therefore, the highest loss of GDP was recorded by the coastal fishing sector.

Table 3.8A and Table 3.8B show overall coastal GDP by district in 2004 and in 2005 respectively. The GDP at national level in 2004 was Rs.980720 mn while GDP in 2005 was Rs. 1023209mn. Of this GDP value in 2004, Rs.426988 mn was contributed by overall coastal region. The Colombo district contributed the largest share of 37.6 percent to the coastal GDP in 2004 but in 2005 it increased to 39.2 percent. The lowest GDP in coastal region was reported by the Mullative district amounting 0.2 percent of overall coastal GDP in 2004 and in 2005. It depicts a clear picture of economic disparities in the coastal belt. The difference was 25 percent and it showed more efficient and effective economic activities of the coastal belt in the Colombo district showing growth of human settlement, development of Free Trade Zone, landing facilities, development of commercial harbour, and transport and communication facilities. These tables further depicts that the economic sectors of the coastal region were dominated by the Trade and Tourism sector. The Coastal belt in the Puttalam district contributed 14.7 percent to overall coastal GDP reporting second to the Colombo district in 2004 and 2005.

The coastal GDP in agricultural sector was Rs.36262.3 mn in 2004 and Rs. 26542 mn was in 2005 reporting declining trend in 2005 due to effect of the Tsunami. The industrial sector including four sectors of Mining and Quarrying, Manufacturing, Construction, Electricity Gas and Water registered of 26.9 percent of overall coastal GDP in 2004 and 2005 while Manufacturing sector covered 19 percent of the coastal GDP.

Table 3.9A shows that the Tsunami has not made any impact to the coastal GDP in the sectors such as Coconut, Transport, Storage and Communication, Banking , Insurance and Real-estates.

Because of the importance of the Transport network, most of the damages were repaired and reconstructed within three months.

Table 3.9 A depicts the loss of district coastal GDP by Tsunami in 2005. This table shows that the highest loss was reported by the Galle district amounting Rs. 6242.7 mn and it contributed 28 percent to the total loss of GDP.

TABLE 3.9A
TSUNAMI IMPACT ON COASTAL GDP IN 2005
Constant 1996 price

	Colombo	Gampaha	Kalutara	Galle	Matara	Hambantota	Puttalam	Jaffna	Mannar	Mullative	Killinochi	Amparai	Batticaloa	Trincomalee	Rs. Mn Total
1. Agriculture, Forest and Fishing	0.0	0.0	1273.8	2941.1	2573.3	969.7	0.0	675.1	0.0	95.5	6.0	1131.8	1278.9	832.8	11777.9
1.1 Agriculture	0.0	0.0	0.2	40.4	8.1	29.6	0.0	3.9	0.0	28.4	6.0	51.6	12.9	14.5	195.6
Tea															
Rubber															
Coconuts															
Paddy			0.0	8.2	5.4	13.6		3.3		27.8	6.0	51.6	1.1	2.0	119.0
Other agriculture			0.2	32.2	2.7	16.0		0.6		0.6	0.0	0.0	11.8	12.6	76.6
1.2 Forestry and Firewood															0.0
1.3 Fishing	0.0	0.0	1273.6	2900.7	2565.1	940.1	0.0	671.2	0.0	67.1	0.0	1080.2	1266.0	818.3	11582.3
Coastal			1273.6	2900.7	2565.1	940.1		671.2		67.1	0.0	1080.2	1266.0	818.3	11582.3
Inland															0.0
2. Mining and Quarrying		21.0	98.0	139.0	90.0	126.0		24.0		9.0	12.0	21.0	29.0	18.0	587.0
3. Manufacture	102.0	2.0	860.0	932.0	173.0	90.8		49.3		5.8	1.1	14.0	6.0	8.0	2243.9
4. Construction															0.0
5. Electricity Gas & Water															0.0
6. Transports, Storage and Communication	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Road															
Rail															
Air															
Water															
Communication															0.0
7. Trade & tourism	253.4	188.7	2902.0	2041.6	1040.3	367.4	0.0	105.4	0.0	10.1	27.0	86.2	42.8	201.8	7266.5
Trade	57.0	66.0	2812.0	1876.0	1004.0	346.0		105.4		10.1	27.0	85.6	42.3	200.6	6632.0
Tourism	196.4	122.7	90.0	165.6	36.3	21.4		0.0		0.0	0.0	0.6	0.5	1.2	634.5
8. Banking, Insurance and Real estate															0.0
9. Ownership & Dwelling	28.0	8.0	98.0	98.4	76.0	7.3		2.1		0.3	0.5	2.9	3.0	5.7	330.2
10. Public services	0.0	0.0	0.8	4.5	5.9	3.9	0.0	2.7	0.0	0.6	0.8	2.1	2.1	3.3	26.7
Defence & Admn															0.0
Health				1.4	1.8	1.3		0.8		0.2	0.2	1.2	0.8	1.4	9.1
Education			0.8	3.1	4.1	2.6		1.9		0.4	0.6	0.9	1.3	1.9	17.6
11. Private services	12.0	5.1	78.3	86.2	47.4	6.4		4.0		0.8	1.2	2.4	3.3	2.9	250.0
Total	395.4	224.8	5310.8	6242.7	4005.9	1571.5	0.0	862.5	0.0	122.1	48.7	1260.4	1365.0	1072.4	22482.3

3.3.3 The Coastal Environment, Changes of Policies on Environmental Management and Future

The Coastal Environment

The coastal environment comprises a variety of coastal resources such as the beaches, sand dunes, estuaries, sand spits, lagoons, mangrove vegetation, sea grass beds coral reefs, beach rock etc. Many of these components act as an important role in terms of providing the interface, by providing a platform for activities in the hinterland and the sea and a transmission zone between the sea and the land.

The coastal environment is also a part of a large ecosystem which extends to upland agriculture and man-made eco plantations/vegetation in the coastal zone. Because of the interchange of inputs, products and by-products of these sub sets of the large eco system various issues have been confronted for its sustainable management.

Mangroves and Other Coastal Forests

Mangroves and mangrove associates are known as one of the highest productive ecosystem in the earth. Mangroves occur as a narrow inter-tidal belt and extend to the mean low water tidal level. It has been reported that over 14 species of true mangroves and 12 species of mangrove associates in Sri Lanka.

Mangroves stabilize the shoreline against erosion in estuaries and same segments in the coast inhibiting wave damage. Mangrove stands also useful to control runoff by reducing siltation in estuaries and sea grass beds. The mangrove cover in Sri Lanka is estimated at 8687 hectares. The Puttalam district in the North western province has 2000 hectares while Batticaloa and Trincomalee in the eastern province has 1000 hectares each. Mangroves in other areas exist along brackish water bodies, lagoon and inlets. One of the special characteristics of mangroves in Batticaloa district is the existence of two bands of mangroves. One of the common coastal forest species in the coastal habitat is *Casurina* and was badly damaged during tsunami tidal waves.

Coral reefs and Sea Grass Beds

Coral reefs in Sri Lanka can find along 2 to 3 percent of island shoreline. They occur adjacent to shore and grow from the sea floor and known as fringing type. The other type of coral reef is the barrier type and find in small percentage mainly in Vankalai and Silvathurai of North and eastern coast. Healthy coral reefs have ability to intact, absorb and dissipate wave energy and therefore important for coastal stability and as a source of beach material. Coral reefs of Sri Lanka had been destroyed/ damaged since in many years by mining of rocks for making lime and cement from coastal pollution. Also suffer from major coral bleaching event in 1998 due to unusual higher water temperature.

Sea grass beds are occurring in shallow, near shore coastal waters in estuaries and lagoons. Sea grass beds are abundant in coast and often occur in association with coral reef ecosystems. Sea grass beds are important elements in the coastal eco systems by providing food for many juvenile fish / shrimp species as well as binding sediments and stabilizing against erosion.

Barrier beaches, sand spits and dunes are also important components in the coastal habitats of Sri Lanka. Barrier beaches are the accumulations and consolidated sediments transported ashore by waves and isolates from the sea. Dunes are wind blown accumulations of sand and distinctive from adjacent land forms such as beaches and tidal flats. Sri Lanka has sand spits along the Western and Eastern coast. Sand dunes are extensively found in the eastern coast and the North western coast. Coast protection and sand supply are the major function of them. They are also useful as nesting areas for sea turtles.

Policy changes in the Coastal Environment and Its Future

Sri Lanka has significant experiences in formulation and implementation of coastal policies for the coastal zone management since the enactment of Coastal Zone Act in 1981. The Coastal Zone Act gave the responsibilities of policy formulation, planning, research, administration of permit procedures on regulating coastal development activities, construction, maintenance of shoreline protection works etc. to the Coast Conservation Department. These activities are known as first generation programmes by the “Coastal 2000” report. The “Coastal 2000” is a report on coastal resources management prepared with the assistance of US AID. It was based on field studies as well as discussions among key national agency officials and non-governmental representatives. There are two volumes in Coastal 2000 as Volume one and two.

Volume one includes the evaluation of coastal resources management in Sri Lanka and primary issues to be addressed for better coastal management. Volume two includes the policies to overcome the above issues and new avenues. These policies are summarized below.

- Devolution of coastal resources management programme simultaneously to the provincial, district and local levels with the national one with participatory resources management.
- Collaboration of relevant coast conservation agencies such as Coast conservation Department (CCD), National Aquatic Resources Agency (NARA), Central Environmental Agency, Irrigation department, Ministry of Environment etc. to monitor the conditions of coastal resources use.
- Implement a research programme of a direct relevance to coastal resources through NARA, National Universities and other agencies for a better understanding of ecological, social, and cultural issues and provide information for the better policy formulation on coastal resources Management plan.
- Emphasize the broadening of the definition of the coastal Zone used at present.

Objectives and implementation strategies for the stated policy statement also well articulated in the coastal 2000 document. For instance the objective of the first policy is to improve the quality of information available to the central government agencies and to upgrade the capacity of these agencies to implement the Coastal Zone Management programme. The CCD should first suggest substantive topics to be addressed in the Plan will be supported by research findings of NARA and other agencies and the provincial planning has to address the relevant topics and activities.

Mapping of particular areas based on special opportunities, use conflicts, vulnerability to erosion, priorities for special area management plans etc. are examples for this type of activities.

The policies stipulated in the “Coastal 2000 had been included in the Coastal Zone Management Plan of 2004 (CZMP (2004) which is approved by the Cabinet for implementation. This can be viewed as one of the major achievement of the Coastal 2000 for better coastal resources management. The Coastal Zone Management plan (2004) has seven Chapters and the coastal management policies, objectives and actions are described under the coastal erosion management, coastal habitat management and the coastal pollution control chapters. A brief summary of the objectives and relevant stated policies stated in the Coastal Zone Management (2004) are given in table 3.10.

Table 3.10 Major Policies, Objectives and Actions stated in the Coastal zone Management Plan for Coastal Erosion Management

Objective	Policy	Actions
1.1 Ensure that the location of development activities in the coastal zone does not contribute to aggravate erosion	New construction may be permitted only in accordance with the set back standards Minimize adverse impacts due to construction of maritime structures	Ensure coastal set back standards Conduct annual permit compliance monitoring surveys Build awareness of setback regulations etc.
	Sand mining shall be regulated by means of guidelines specifying quotas, time limits, setbacks, imposition of monitoring schemes	Enforce specified guidelines of the CZM plan Undertake periodic monitoring surveys of sand mining Participate in a National sand study and implement the recommendations made by the national sand study
1.2 Identify coastal erosion trends and formulate appropriate mitigation measures that cost effective, socially & environmentally acceptable.	Carry out coast protection schemes consistent with the updated Master Plan for coastal erosion management	Update the Master Plan for Coastal Zone Erosion Management plan for identification of erosion-prone areas and design strategies.
	Support action to minimize the social and economic impacts caused by the prohibition of coral mining	Coordinate actions to minimize social and economic impacts caused by the prohibition of coral mining
	Encourage the collection and use of scientific and socioeconomic information required to update the CZM plan	Establish and develop a comprehensive database with public and private agencies for research and planning purposes.

Table 3.11 Major Policies, Objectives and Actions stated in the Coastal zone Management Plan for Coastal Habitat Management

Objective	Policy	Actions
1. Preserve and enrich the coastal habitats and natural features of exceptional value including protected areas	Prohibit or require development activities where there is a reasonable probability that can cause degradation	Periodically update the list of designated sites as areas of exceptional value. Regulate all development activities through coastal development permits and EIA procedures.
Promote sustainable development of resources found within coastal habitats	Promote inter-agency cooperation in development planning to minimize adverse impacts on coastal habitats	A proper coordination and cooperation relevant to this policy
Prevent degradation and depletion of coral reefs as a scientific, educational and tourist resource.	Prohibit breaking, collecting, offshore coral debris and mining of coral in the coastal zone	Strictly enforce the Coast conservation act with concerned authorities. Annual surveys to determine illegal coral mining, amend the exiting legislation and conduct awareness programmes for identified target groups
	Promote introduction of alternative sources of lime to meet the requirements of the construction industry and agriculture	Encourage relevant Agencies
Maintain fishery habitats and water quality, protect recreational values, and regulate sand mining levels that do not have an adverse impact on beach replenishment	Ensure that impacts of all development activities are minimized to coastal habitats close by	Concerned Authorities (CEA,CCD)
Preserve mangroves as an important habitat for wildlife, a nursery for fish, a nutrient trap and to extraction at a sustainable level	Prevent further depletion or deforestation of mangroves and due to excessive fresh water or pollutants	Ensure that impacts of excessive fresh water flow and others are not critical for the depletion of mangroves –CCD
Preserve sea grass beds as fisheries habitats for sea turtles and Dugong Sustainable use of salt marshes Conserve barrier beaches, spits and dunes	Ensure that no prohibition for disturbances to sea grass beds, salt marshes and sand dunes.	Actions by relevant Authorities

Table 3.12 Major Policies, Objectives and Actions stated in the Coastal zone Management Plan for Coastal Pollution Control

Objective	Policy	Actions
Minimize effluent discharges and impacts in the coastal zone to prevent further degradation of coastal water quality and habitats	All development activities in the coastal zone comply with the CEA's standards for stipulated coastal and marine waters	Impose CEA standards for discharges on all new development activities in the coastal zone to permits under the provisions of CCD Act. Impose a compliance programme in collaboration with CEA against existing developers violating the stipulated standards Initiate an awareness programme with the relevant agencies and studies on water quality
	Cooperate with other agencies in developing strategies for providing economic incentives to developers to minimize untreated discharges	Collaborate with other agencies to develop a program of economic incentives.
	Encourage the relocation of high and medium polluting industries in industrial zones	Assist relevant agencies in establishing a single pollution abatement fund.
Improve the coastal environment by reducing the types and volume of solid waste disposal in the coastal zone	Assist in preparing solid waste management plans for identified coastal urban centres, tourist centres etc.	CCD shall work with relevant agencies
	Discourage local authorities to disposal solid waste in the coastal zone	
	Collaborate in public education and awareness programmes and join with other agencies in solid waste management	
Share and disseminate information on coastal pollution management	Collaborate with CEA, NARA and other agencies in formulating a research agenda for coastal pollution control	CCD shall develop an agenda for pollution management

Performances of Policies

A variety of positive outcomes have been occurred due to the introduction of above policies in the environment sector. Strengthening the officials of Regional offices in the coastal areas have improve the permit procedure and use of coastal setbacks has resulted reducing the environmental degradation. It also facilitates to create awareness for the local people. The Coastal Resources Management project has conducted a national sand study. The use of Sea sand in place of river sand for construction is being used at present. The Coastal Zone Management Plan also updated incorporating the recommendations of Coastal 2000. A cooperation between relevant agencies responsible for coastal environment also improved and strengthened. The Geological Survey and Mines Bureau (GSMB) is responsible for issuing mining licenses/permits and the CEA administers the EIA procedure. One of the major positive outcomes is the implementation of Special Area Management programme in selected sites. At present this scheme is operating in seven sites such as Lunawa, Maduganga, Negombo etc except Northern and Eastern Provinces.

Policy Changes After the Tsunami and future

The Tsunami waves have caused a mammoth destruction to the Sri Lanka's coast line on 26th December 2004. It has caused severe damage to the coastal environment As a result of this the Government has prepared following guidelines to minimize the risk of investments in the coastal zone. A new Buffer zone (No build zone) has been introduced within the coastal zone. New regulations and procedures have been introduced for issuing permits for development activities.

“A 100 meter buffer zone from the permanent vegetation line of the beach front should be delineated for any new constructions in the west and south coast from Kala oya river mouth (Gange wadiya) to Kirindi Oya river mouth and 200 meter buffer zone from the permanent vegetation line of the beach front should be delineated for any new construction in the east and North coast from Kirindi Oya river mouth to Kala Oya (Gange Wadiya)”.

It is said that the above guidelines should be treated as interim guidelines for all development activities within the coastal zone and will be effective until the formal guidelines are formulated based on the findings of the research, investigations and studies identified by the CCD.

The new regulations and guidelines create some difficulties in rehabilitation and reconstructions in the coastal zone and costal community made several objections. As a result of these interim guidelines are no more in operation. At present the Coast Conservation Department follows the original one which is based on the erosion rates of the coast in deciding set backs for issuing permits.

The Coast Conservation Department has revised the Coastal Zone management Plan of 2000. It has given high priority on the implementation of Special Area management approach in future coastal management programme. It is an integrated approach with all the participation and making common decisions for coastal resources management by all stakeholders aimed at sustainable coastal resources management. At present this scheme is implemented in seven sites of five districts. It is viewed that is a potential to extend this scheme in another eight districts Sri Lanka including northern and eastern provinces

SECTION - II

The Coastal Region, GDP of
Sri Lanka and GDP in the
Coastal Region

2.1 The Coastal Region

There is no standard or internationally accepted definition for the coastal region. According to Professor Madduma Bandara (1989), A Survey of the Coastal Zone of Sri Lanka stated that one study used the coastal region as an area with a maritime boundary and extending to 50 kms into the hinterland of the country. This includes the coastal zone as well as the adjacent lands. However, Saundranayagam, Alwis, Joseph and Nimal Siripala used the coastal region as the D.S. Divisions with maritime boundaries. Our study also used the definition of the coastal region as the D.S. Divisions with maritime boundaries. This nomenclature is consistent with previous studies

This definition is appropriate as the findings of this study can be compared with the previous GDP estimations.

2.2 National GDP and Coastal GDP

Sri Lanka has five provinces which have maritime boundaries. They are the Western Province, the North-Western Province, the Southern Province, the Eastern Province and the Northern Province. The number of districts and D.S. division having maritime boundaries are given in annex IV.

Table 2.1 shows the coastal GDP estimates for the coastal GDP in 2004. The coastal GDP was estimated at 1996 constant prices. The National GDP at 1996 constant prices also included in table 2.1.

Table 2.1 has 11 categories of GDP ranging from agriculture, forestry, fishing, mining and quarrying, manufacturing, construction etc. to private services as stated in the Central Bank estimates.

The total national GDP value in 2006 was Rs. 980,720 million. Of this value, Rs. 426,998 million was contributed from the coastal region amounting to 44 percent (see figure 2.1). The non-coastal component of the GDP is 56 percent of the total national GDP. In terms of contribution of coastal GDP by province, the Western Province contributed the highest which was about 66 percent while the lowest was by the Northern Province which was about 4 percent.

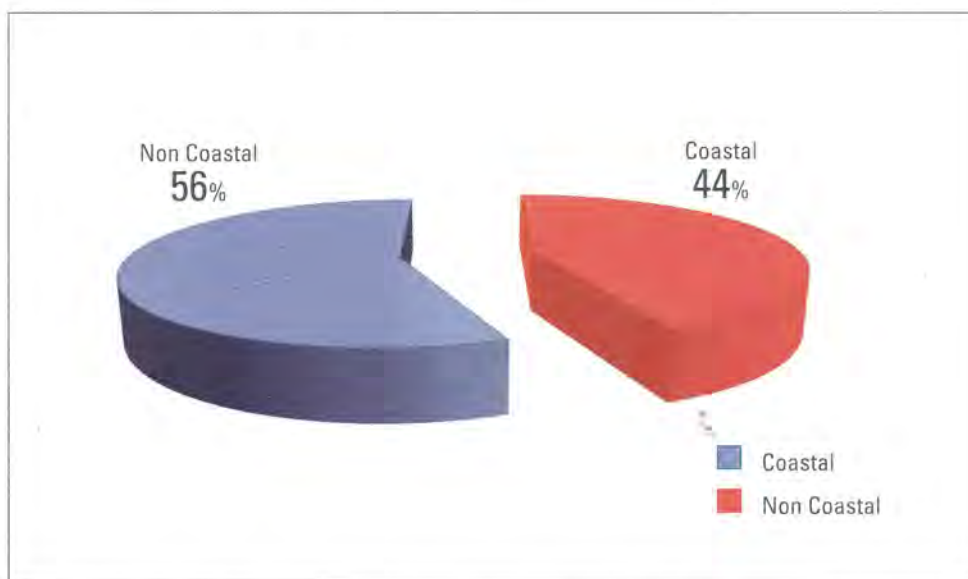
Table 2.1 Coastal GDP by Province and National GDP in 2004 at 1996 Constant Prices

Rs. Mn

	WP	NWP	SP	EP	NP	Total Coastal GDP	National GDP
1. Agriculture, Forestry and Fishing	4705.5	8004.8	10290.1	9194.2	4067.7	36262.3	175853.8
1.1 Agriculture	716.9	2919.8	2582.5	4635.8	2161.1	13016.0	135964.1
Tea	0.7	0.0	41.3	0.0	0.0	41.9	12315.0
Rubber	36.3	0.0	45.6	0.0	0.0	81.9	3370.0
Coconuts	217.2	633.0	140.6	51.4	49.1	1091.2	12212.9
Paddy	29.7	266.1	616.0	2351.5	821.8	4085.0	25151.6
Other agriculture	433.0	2020.7	1739.0	2232.9	1290.3	7715.9	82914.6
1.2 Forestry and Firewood	189.0	748.2	251.5	827.8	324.8	2341.2	17109.5
1.3 Fishing	3799.7	4336.9	7456.1	3730.6	1581.8	20905.1	22780.1
Coastal	3798.6	4329.0	7454.4	3682.4	1562.0	20826.4	20829.1
Inland	1.1	7.9	1.7	48.2	19.8	78.7	1951.0
2. Mining and Quarrying	575.0	2021.0	882.9	473.6	394.6	4347.1	16944.9
3. Manufacture	49182.5	23765.7	6733.3	2019.0	1848.4	83548.9	159721.0
4. Construction	13306.1	926.0	1510.8	882.6	563.5	17189.0	68332.3
5. Electricity, Gas & Water	8820.1	380.4	392.4	274.8	69.9	9937.4	14286.8
6. Transport, Storage and Communication	46994.3	7869.6	6517.9	1018.0	1441.0	63840.9	269316.4
Road	33910.9	5770.0	4836.5	848.8	1099.9	46466.1	106994.0
Rail	6078.7	148.1	1140.8	85.5	63.6	7516.8	140651.0
Air	2732.0	0.0	13.3	3.0	23.0	2771.3	2770.4
Water	1014.0	24.0	232.0	49.1	233.2	1552.3	1598.0
Communication	3258.7	1927.5	295.2	31.5	21.3	5534.3	17303.0
7. Trade & tourism	92728.3	12160.5	14254.6	5538.2	3111.1	127792.6	219040.3
Trade	89577.3	11765.2	12626.9	5449.1	3070.3	122488.8	212410.6
Tourism	3151.0	395.3	1627.7	89.1	40.8	5303.8	6629.7
8. Banking, Insurance and Real estate	31548.1	1901.9	2500.4	958.6	239.8	37148.8	73952.0
9. Ownership & Dwelling	10730.2	2161.2	1148.8	723.4	279.5	15043.1	40709.3
10. Public services	7060.1	489.1	1328.8	1667.6	1886.7	12432.3	42985.4
Defence & Administration	4793.5	323.0	900.5	1189.5	1666.1	8872.6	31063.6
Health	655.8	47.4	82.7	38.1	56.1	880.1	1917.1
Education	1610.8	118.6	345.7	440.0	164.5	2679.6	10004.6
11. Private services	13184.7	3060.0	1513.1	557.8	1140.5	19456.1	26169.1
GDP	278834.9	62740.1	47073.2	23307.7	15042.7	426998.6	980720.3

Source: *National GDP of Central Bank of Sri Lanka, Coastal GDP estimated by the Study*

Fig 2.1 Coastal and Non Coastal GDP in 2004



Source: *National GDP of Central Bank of Sri Lanka, Coastal GDP estimated by the Study*

Table 2.2 shows the percentage contribution by different sectors in 2004.

Trade & Tourism, Agriculture, Forestry and Fishing, Manufacturing and Transport, Storage and Communication are the major sectors in the National GDP which contributes over 10 percent.

With regards to Coastal GDP, Trade and Tourism, Manufacturing and Transport, Storage and Communication are the only sectors that contributed over 10 percent. This shows that agriculture, forestry and fishing is not important in the coastal GDP relative to national GDP. In the national GDP, agriculture, forestry and fishing recorded over 17.9 percent while in the coastal GDP it is only 8.0 percent. Trade and Tourism is the largest contributor to national and coastal GDP. In terms of magnitude of the contribution, trade and tourism in the Coastal GDP is 30.9 percent while the national contribution is only 22.3 percent.

Since many import and export trading activities are carried out in cities which are located in the coastal region and coastal tourism is the major component of the tourism industry, compared with the national GDP, coastal trade and tourism shows a higher contribution. Many agriculture related activities are not concentrated in the coastal region. These activities are concentrated mainly in the hinterland. Therefore the contribution from agriculture, forestry and fisheries to the national GDP is greater than that to the coastal GDP.

Mining and quarrying is the least contributor of the coastal GDP while electricity gas and water is the least contributor of the National GDP. The consumption of electricity, gas and water depends on the population as well as industries in the area. With regards to mining, there is a great potential in the coastal region to increase its contribution due to the existence of mineral deposits in certain Provinces.

Table 2.2 Percentage of Coastal GDP by Sectors in 2004

Sector	National	Coastal
1. Agriculture, Forestry and Fishing	17.9	8.0
2. Mining and Quarrying	1.7	1.0
3. Manufacturing	16.3	19.4
4. Construction	7.0	4.0
5. Electricity, Gas & Water	1.5	2.3
6. Transport, Storage and Communication	14.6	15.0
7. Trade & Tourism	22.3	30.9
8. Banking, Insurance and Real-estate	7.5	8.6
9. Ownership & Dwelling	4.2	3.5
10. Public services	4.4	2.9
11. Private services	2.7	4.5
	100.0	100.0

Source: *National and Coastal GDP estimated by the Study*

Tourism has emerged as the fourth largest foreign exchange earner in Sri Lanka and coastal tourism is the major component, located in the coastal region. Eco and cultural tourism are some of the areas of tourism and there is a great potential in the coastal region to expand tourism into these areas. With the increasing population, trade is becoming increasingly important. Except for few major cities, all the major cities of Sri Lanka are located in the coastal region. Therefore, trade has become one of the major economic activities in the coastal region.

Fig 2.2 Contribution of Economic Sectors to the Coastal GDP in 2004

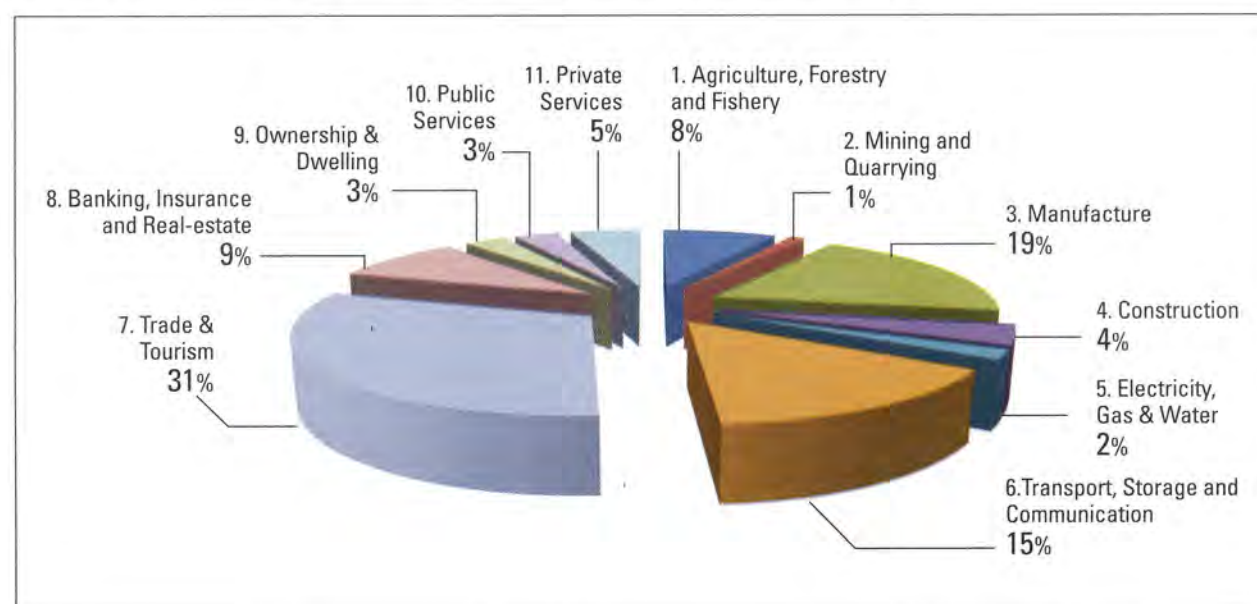


Table 2.3 shows the Coastal GDP as a percentage of National GDP. This also confirms our early statement relating to trade and tourism, manufacturing, transport, storage and communication sectors etc.

Table 2.3 Percentage of Coastal GDP by Sectors in 2004

Sector	GDP Percentage
1. Agriculture, Forestry and Fishery	3.50
2. Mining and Quarrying	0.45
3. Manufacture	8.52
4. Construction	1.75
5. Electricity, Gas & Water	1.01
6. Transport, Storage and Communication	6.60
7. Trade & Tourism	13.6
8. Banking, Insurance and Real-estate	3.80
9. Ownership & Dwelling	1.53
10. Public Services	1.27
11. Private Services	1.98
GDP	44.00

Tourism has emerged as the fourth largest foreign exchange earner in Sri Lanka and coastal tourism is the major component, located in the coastal region. Eco and cultural tourism are some of the areas of tourism and there is a great potential in the coastal region to expand tourism into these areas. With the increasing population, trade is becoming increasingly important. Except for few major cities, all the major cities of Sri Lanka are located in the coastal region. Therefore, trade has become one of the major economic activities in the coastal region.

2.3 Agriculture in the Coastal Economy

In 2004, agriculture accounted for only 8.0 percent of coastal GDP. In terms of National GDP, the contribution of the coastal economy in agriculture, forestry and fishery is only 3.5 percent showing its low importance. The agriculture sub sector of the coastal region consists of plantation crops (tea, rubber and coconut), paddy, and other food crops. Plantation crops (tea & rubber) except coconut are not significant in the coastal region while paddy and other food crops are the most important ones. Coconut is generally well grown in the coastal belt also as well as in homesteads in the coastal region.

Table 2.4 shows the components of agriculture and other sub sectors of agriculture, forests and fishing in the coastal and national GDP while Table 2.5 shows the percentage contribution to Coastal and National GDP. According to these tables, fishing is the most important sub sector in the coastal economy. The other agriculture such as cultivation of other food crops represents the second. Coconut plays some importance while tea and rubber are not significant in the coastal GDP.

With regards to National GDP, other agriculture is the most important in the agriculture sector while paddy is the second important. Fishing is also important but not as coastal GDP, reflecting a contribution of only 13 percent. Tea, rubber and coconut are also important in certain percentages.

Table 2.4 Coastal GDP and National GDP of the Agriculture Sector in 2004

Component	Value (Rs. Mn)	
	Coastal	National
Tea	41.9	12315.0
Rubber	81.9	3370.0
Coconuts	1091.2	12212.9
Paddy	4085.0	25151.6
Other Agriculture	7715.9	82914.6
Forestry and Firewood	2341.2	17109.5
Fishing	20903.4	22778.9
Total	36260.6	175852.6

Table 2.5 Contributions of different components of the Agriculture sector to the National and Coastal GDP in 2004

Component	Coastal GDP (%)	National GDP (%)
Tea	0	7
Rubber	0	7
Coconuts	3	7
Paddy	11	14
Other Agriculture	21	47
Forestry and Firewood	6	10
Fishing	58	13
Total	100	100

Paddy and other food crops are grown in all the coastal DS divisions. In certain coastal districts in the Eastern Province (Ampara, Batticaloa), Northern Province (Jaffna, Mullaitivu) and the North Central Province(Puttalam) over 50 percent land is under irrigated/rain fed paddy cultivation. The average paddy yields are not as high as paddy yields in the Polonnaruwa or Anuradhapura districts. This is mainly due to the non- availability of water during the growing period. Vegetables, leafy vegetables, root crops, legumes and cereals are the major other food crops grown in these coastal DS divisions.

The total land under different crops in the entire island is reported at 2.016 million hectares. Of this Tea represents 0.22 million hectares while Rubber represent 0.1116 million hectares. The total land extent under coconut is 0.3948 million hectares and paddy represents about 1 million hectares. The remainder is taken by the other food crops. With regard to the coastal region coconut is an important crop and all the coastal DS divisions have coconut palms and homesteads with other perennials. It has been estimated that 10 percent of the coconut cultivation in the coastal Ds divisions are in pure stands. Scrub lands, grass lands and mangrove forests are the other types of vegetation in the coastal region. Grass lands are spread mainly over the Batticaloa district while over 70 percent of mangrove forests are located in Batticaloa, Jaffna and Kilinochchi districts contributing a small percent to the GDP. However, their contribution to the stability of the coastal environment is very high.

2.4 Fisheries in the Coastal Economy

As illustrated in Figure 2.4, fisheries is the largest sub sector of the coastal GDP contributing 59 percent to it. The contribution of the fisheries sector to the National GDP is about 2 percent.

Marine (Off shore and Coastal) and aquaculture & inland fisheries are the sub sectors of the fisheries sector. Marine fisheries is the major economic activity in the coastal DS divisions. This sector has 83,776 active fishermen with a total of fishing households of 344,500. The mean fishermen per household is 1.16.

The total fish production in the year 2004 was 286,320 metric tons. Of this 253,190 metric tons were produced in the marine sector. The largest share is produced in the coastal fisheries, around 65-70 percent. Since Sri Lanka has over 200 miles Exclusive Economic Zone there is a great potential in increasing off shore fish production. The remainder of the 2004 total fish production, 33,180 metric tons, were produced in the aquaculture and the inland fisheries sub sector. Puttalam, Batticaloa, Hambantota and Ampara are the major coastal districts which have inland fisheries and aquaculture relatively greater than other districts.

Fig 2.4 Composition of Coastal GDP in Agriculture

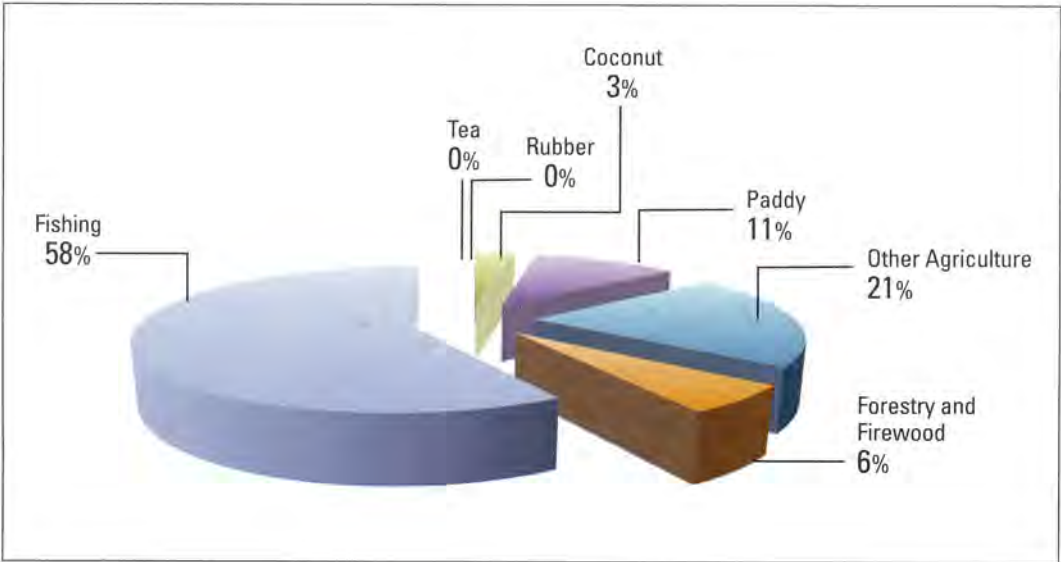


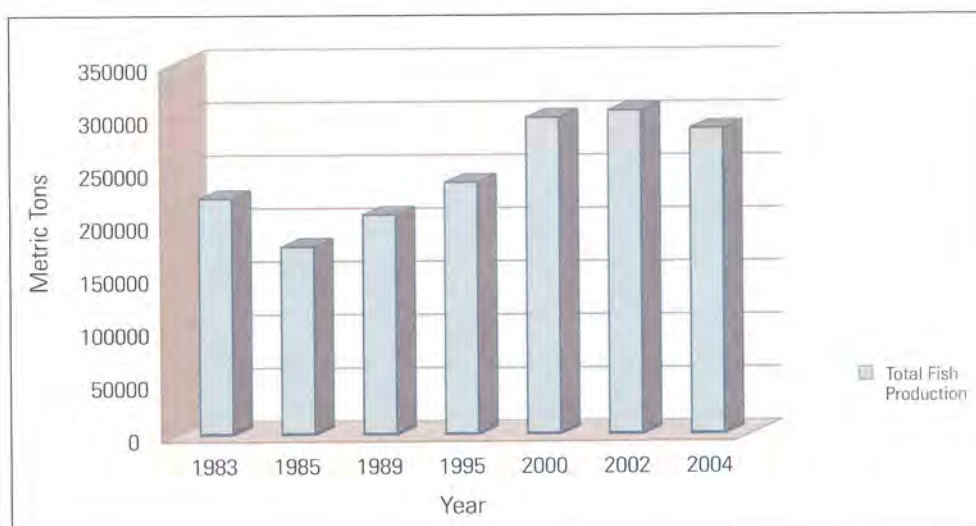
Table 2.6 shows the annual fish production over the period 1983 to 2004.

Table 2.6 Coastal GDP and National GDP of the Agriculture Sector in 2004

Category	1983	1985	1989	1995	2000	2002	2004
Marine	184737	142666	165566	217500	259680	274760	253190
Inland and aquaculture	36068	32743	39770	18250	36700	28130	33180
Total	220806	175409	205286	235750	296380	302890	286370

Source: *Ministry of Fisheries Aquatic Resources*

Fig 2.5 Trend in Annual Fish production



Sri Lanka has around 120,000 brackish water bodies which consist of lagoons, estuaries, tidal flats, mangrove swamps, and salt marsh. Capture and culture fisheries are carried out in these water bodies. Shrimp culture is concentrated in the Puttalam District. The total value of fishery exports in 2004 was Rs. 9,435 and of this shrimp accounted for Rs.2,359 million.

2.5 Mining and Quarrying in Coastal Region

The Coastal belt in Sri Lanka is endowed with some valuable industrial minerals include silica sand, clay, monazite, zircon, garnet, limonite etc.

Table 2.7 Coastal GDP in Mining and Quarrying in 2004 (Constant Price 1996)

Province	Value Rs. Mn	Percentage
Western	575	13.2
North Western	2021	46.5
Southern	882.9	20.3
Eastern	473.6	11.0
Northern	394.6	9.0
Total	4347.1	100.0

Source: *Estimated by the Author*

This table shows the contribution of mining and quarrying sector to the GDP in Coastal Region by Provinces. The coastal belt of the North- Western Province records highest contribution to coastal GDP while Southern Province contributes 20 percent to the GDP in mining and quarrying. All industrial mineral which are available in coastal region are mined in quarries or surface pits by open cast method.

It has been reported that significant reserves of mineral sands are located in Induruwa, Beruwala in the Southern province and Puttalam in North Western, Pulmoddhai in the Eastern Province. These deposits mainly consist of limonite, monazite, zircon and garnets. The silica sand deposits are available in Maravila, Madampe, Nattandiya of the North Western Province and very large belt of silica sand are found in Jaffna peninsula.

Table 2.8 Production of Silica Sand

	1998	1999	2000	2001	2002
Qty (T)	35425	29736	27055	26040	11776
Value (Rs.mn)	-	-	30.4	29.0	14.3
GDP (Rs mn)	-	-	24.6	23.5	11.6

Source: *Geological survey and Mines Bureau and Estimations*

Miocene limestone locates in the coastal region of the North Western Province and the Jaffna peninsula. The valuable outcrops are mined in the north of the Karavita near Puttalam. Miocene lime stone is mainly used for cement manufacture. Annual demand for Miocene lime stone is higher level because it is used for cement manufacture.

Table 2.9 Production of Miocene Lime Stone

	1998	1999	2000	2001	2002
Qty (T)	738394	683377	681858	818524	848093
Value (Rs.mn)	175	179.5	283.9	402.9	385.2
GDP (Rs. mn)	131.3	134.6	213.0	302.1	288.9

Source: *Geological survey and Mines Bureau and Estimations*

Production of Miocene lime stone increased annually. It affect adversely on the environment because these deposits cannot be recovered. Coral deposits along the coastal belt mainly recorded in Ambalangoda, Akurala, Hikkaduwa and Matara. There are nearly 90 coral mines and bars in the coastal belt of Southern. Large number of people legally or illegally involve in coral mining in the coastal region. these coral deposits consist of loosely packed fingers or stick coral. Coral mining is banned at present due to adverse impacts to the coastal environment.

Table 2.10 Production of Coral

	1998	1999	2000	2001	2002
Qty (Tons)	5938	4332	5263	1346	3156
Value (Rs mn)	14.8	15.2	15.8	2.69	6.31
GDP	11.9	12.2	12.8	2.2	5.1

Source: *Geological survey and Mines Bureau and Estimations*

This table shows that the production of coral decreased annually while production of Miocene lime stone increased from 1998 to 2002.

Production of Seashells

The deposits of seashells occur mainly in the coastal belt of southern, North western and Southern region. These deposits extend parallel to the coastal belt and it occurs at depth of 2.5 meters from the surface.

Table 2.11 Production of Seashells

	Qty (T)	Value (Rs mn)	GDP (Rs mn)
1998	5875	10.3	8.5
1999	11834	23.7	19.2
2000	2979	5.9	4.8
2001	4186	6.3	5.1
2002	1550	3.1	2.5

Source: *Geological survey and Mines Bureau and Estimations*

Seashells occur mainly in the coastal belt of southern and North western and Northern region. These deposits extend parallel to the coastal belt and it occurs at depth of 2.5 meter from surface. These shells are used for lime production.

Excessive and unsystematic mining for coral, mineral sands, sea shells and limestone have adverse effects on the coastal region and sustainability of the coastal habitats. At present coral mining in the coastal zone is banned. However, illegal coral mining is carried out due to poor law enforcement. Many inland coral deposits exist in the Hikkaduwa, Tangalle and Ambalantota DS divisions. The Eastern Province has a large mineral sand deposit in the beach while Hambantota district has beach sands which are rich in certain minerals. Although there is a great potential in increasing coastal GDP through mining and quarrying improper extraction of minerals can have an adverse effect on the stability and sustainability of the coastal region.

2.6 Industry Sector

The industry sector of Sri Lanka comprises of large industries, small and medium industries and industries at household level. Industrialization is viewed as one of the quickest ways for rapid economic development and attempts have been made in the past to expedite industrial production.

The manufacturing sector is the major element in the industries sector contributing 19.4 percent to the coastal GDP in 2004. The contribution of the manufacturing sector to the National GDP in 2004 was only 16.3 percent. In terms of the magnitude of the sectoral contribution manufacturing sector is the second largest. Table 2.7 shows the different components of the manufacturing sector and their contribution to the coastal GDP in 2004.

Table 2.12 Composition of Coastal GDP in the Industrial Sector by Provinces

	WP	SP	NWP	NP	EP	Total
1. Food, beverage and Tobacco products	7328.1	1326.4	4776.8	295.7	405.8	14132.8
2. Textile Wearing Apparels and leather products	12295.5	1387.0	5703.6	205.1	244.3	19835.5
3. Wood and Wood Products	1475.5	181.8	3327.1	334.5	365.4	5684.3
4. Paper and paper Products	2311.6	154.9	1164.5	109.0	325.1	4065.0
5. Chemicals Petroleum and Rubber	7967.5	1326.4	2115.1	38.8	62.6	11510.4
6. Non metallic Mineral Products	6787.1	430.9	1925.0	258.7	405.8	9807.5
7. Basic Metal products	98.4	20.2	332.7	53.6	80.8	585.6
8. Fabricated Metal products	98.4	935.9	617.9	229.2	60.6	1941.9
9. Manufactured Products	10820.0	969.6	3802.4	323.4	68.6	15984.0
Total	49182.0	6733.0	23765.0	1848.0	2019.0	83547.0

Source: *Estimated by the Author*

According to this table, Textile, wearing apparel and leather products, manufactured products, food beverage and tobacco products, and non-metallic mineral products contributed significantly to the coastal GDP.

Table 2.12 also shows the contribution of manufacturing sector by different provinces to the coastal GDP. The largest contribution is from the Western Province while the second is from the North - Western Province. Many of these industries are located in the Western province while some major fish and shrimp processing factories, and non metallic industries are located in the North -Western Province.

2.7 Trade and Tourism in the Coastal Economy

The trade and tourism sector is the largest contributor to the coastal economy representing 31 percent. However, in the National GDP the trade and tourism sector contributed only 22.3 percent in 2004. The trade sector comprises imports and exports while the tourism sector is one of the major service providers. Tourism is viewed as one of the important sectors which can have a great impact on the coastal GDP. Over 60 percent of the tourist hotels are located in the coastal areas and coastal tourism is one of the major areas of tourism at present.

The tourism sector has contributed 2.5 percent to the coastal GDP while the contribution to the National GDP in 2004 was 0.7 percent. At present, coastal tourism has been very popular due to the blue ocean, long sandy beaches, coastal habitats and other scenic attractions. There is a wide scope for developing eco tourism in the coastal region. Many new initiatives have been started in recent times in the Eastern, North Western, and Southern provinces to promote the tourism industry. Establishment of tourist resorts in Arugam Bay, Passakudah, Nilaweli, Kalpitiya and Unawatuna are some of these initiatives and these entities will lead to an increase in the coastal GDP from the tourism sector in future.

Tourism has been firmly established in all the Maritime Provinces. Table 2.13 shows the volume and value of the tourism during 1997 to 2004.

Table 2.13 Volume and Value of Tourism 1997-2004

Indicator	1997	1999	2004
Tourist arrivals	366,165	436,440	566,202
Excursionist arrivals	18,265	28,335	11,509
Official Receipts(Rs mn)	12,980.3	19,297.3	42,666.3
Receipts per tourist per day US \$	58.6	61.4	72.2

Source: *Sri Lanka Tourist Board Annual Reports of 1997- 2004*

Except excursionist arrivals there was a remarkable increase in 2004 in the areas of tourists arrivals, official receipts, and receipts per day. It has been reported that a majority of tourists stay about four to five days in the coastal areas during visit to Sri Lanka

Tourism has been accorded high priority by successive governments due to its high potential and in terms of employment generation, foreign exchange earning, regional development and creating multiple spin offs for rural poverty reduction.

Table 2.14 shows the tourism sector contribution to the coastal GDP in terms of provinces and total in 2004.

Table 2.14 Tourism Sector Contribution to the Coastal GDP in 2004

Province	Coastal GDP (Rs. mn)
Western	8,672.4
North-Western	3,95.3
Southern	1,627.7
Eastern	89.1
Northern	89.1
Total	10,825.3

Source: *Estimated by the Author*

As indicated in this table, the largest contribution was made from the Western Province while the second was from the Southern Province. There is a great potential in increasing the contribution of tourism to the coastal GDP from North-Western and Eastern Provinces.

2.8 Comparison of the Coastal GDP over the Period 1983 to 2004

Table 2.15 shows the coastal GDP estimations in 1983, 1989 and 2004. The 1983 and 1989 estimations are extracted from the Economic significance of the Coastal region of Sri Lanka by Saundranayagam, Lal, and Siripala while the 2004 estimations are based on the present study. The coastal GDP on 1983 and 1989 were based on 1992 prices while this study uses 1996 constant prices. The comparisons in terms of value therefore are not comparable and only volume (magnitudes) have been used for comparison.

Table 2.15 Comparison of Coastal GDP during 1983-2004

Category	1983	1989	2004
Agriculture, forestry and fishing	12.7	10.0	8.5
Mining and Quarrying	1.1	1.4	1.0
Manufacture	14	17.4	19.6
Construction	6.7	6	4.0
Electricity, gas and water	1.5	1.6	2.3
Transport, Storage and Communication	12.9	17.7	15
Trade and Tourism	30.6	31.8	29.9
Banking, insurance and Real-estate	6.6	6.8	8.7
Ownership & Dwelling	3.6	3.1	3.5
Public services	3.4	4.1	2.7
Private services	6.8	5	4.6
Total	100	100	100
Contribution to National GDP	35	40	44

Source: *Saundranayagam, Lal, and Siripala and Estimated by Author*

According to this table the contribution from the coastal economy to the National GDP has increased from 35 to 44 over the period of 1983 to 2004.

The table 2.10 depicts the structural changes in the coastal economy over last three decades. The contribution of coastal GDP to the national GDP increased from 35 percent in 1983 to 44 percent in 2004. The structure of the economy shows significant changes in Agriculture, Manufacture, Electricity, Gas, and Water, and Banking and Insurance, Real estates sectors due to demand effect of the economic policy in last three decades.

The economy in the coastal region has undergone substantial changes after introducing open trading regime in 1977. The major components of the growth strategy were continued changes in the structure of the economy with development of new manufactural potential and improved productivity and competitiveness in coastal region. The policy and institutional reforms were applied for private sector led growth and induced foreign investment through an open trading regime.

The strategy bolstered economic growth in manufacturing sector from 14 percent in 1983 to 19.6 in 2004. A large number of small , medium and large scale industries were started in the coastal belt. Of these new industries more than 70 percent were centred in the coastal regime of Colombo, Gampaha, Kalutara, Puttalam and Galle districts. The structure of the coastal economy indicates that the industry sector was most dynamic sector comparing with other economic sectors. The government industrial policy encouraged the foreign investment for industries providing tax incentives to Free Trade Zone in Katunayake. These economic activities mainly effected on the land use of the coastal belt in the Western, Southern, and North-Western Provinces. The land use pattern inside the Colombo, Gampaha and Puttalam districts showed the greater important and the prices of the land in these districts went to higher level. As a result of these, agricultural land shifted from farms to factory industry. Conversely, in general the contribution of Agriculture, forestry and fishing sector shows a declining trend reporting decrease from 12.7 percent in 1983 to 8.5 percent in 2004 but coastal fishing sub sector became more significant as the demand for protein with change in life styles and greater affluence.

The transport sector records an increasing trend over the period because the private sector investment has increased in bus transport, port and aviation and also private sector was allowed to operate freight trains after signing an agreement with the railway under open access policy .It can be described that the Puttalam Cement factory operated such services and it effect on the coastal GDP in transport sector. International Civil Aviation Services and Civil Aviation Safety System of the development of Bandaranayake International Airport covering the improvement and rehabilitation of the taxiway, improvement of the passenger terminal building and the expansion of Cargo terminal building supported to increase coastal GDP last two decades.

As the result of the development activities of manufacturing sector in the coastal regime, the Banking, Insurance and real-estate sector indicated substantial improvement and increased from 6.6 percent in 1983 to 8.7 percent in 2004 but Electricity, Gas and Water sector increased from 1.5 percent in 1983 to 2.3 percent in 2004.

The structure of the coastal region economy indicates that the manufacturing sector was most dynamic sector comparing with other sectors in the coastal economy. However, high growth in manufacturing production was due to the economic policy which supported to import raw materials, and machinery with providing tax incentives. Therefore, government industrial policy encouraged the foreign investment for the industries in Free trade Zones in Katunayake, Biyagama, Koggala. These activities mainly effected on the land use of coastal belt in the Western, North-Western and Southern provinces. The land use pattern inside the Colombo, Gampaha, and Puttalam districts showed the greater important and the prices of land for industries went higher level. As a result of this, the use of agricultural land shifted from farm to factory industry.

Following is a summary of the findings of Table 2.15

1. The manufacturing sector shows an increasing trend in contribution to coastal GDP. Establishment of industrial zones, estates, garment factories etc. are the major factors that contributed to this situation.
2. The electricity and gas sub sector shows an increasing trend. This may be due to the growth of the manufacturing sector.
3. Agriculture, forestry and fisheries sector contribution shows a declining trend. Since there is no breakdown of this sector, no comparison has been made for agriculture, forestry and fisheries sub sectors. However, the fisheries sub sector shows a remarkable contribution to GDP in 2004 in the 2004 estimations.
4. The transport sector shows an increasing trend over the period of 1989 to 2004.
5. The contribution of the mining sector also slightly declined during 1989 to 2004.
6. The construction sector shows a declining trend in the coastal region.
7. The Trade and Tourism sector shows a slight decline. However, the tourism sector shows a significant increase over the period of 1983 to 2004.
8. The ownership and dwellings sub sector is more or less stagnant.
9. The contribution from the public sector shows a remarkable decline mainly due to the transferring of many activities to the private sector. The private services also show a slight decline during 1983 to 2004.

SECTION - III

Coastal GDP in the Post-Tsunami Period

SECTION - IV

Recommendation for policy action including the potential opportunities challenges for mainstreaming coastal and marine environmental issues

Section IV

The Coastal Economy Analysis, Conclusions and Recommendations

4.1 The Coastal Economy Analysis

The study has estimated the coastal economy for 2004 by disaggregating the national GDP into coastal D.S. divisions, the damage caused due to the Tsunami in 2004, and its impact on 2005 GDP. The study has compared the GDP contribution changes in 1983, 1989 and 2004. Section II and III described in detail the findings of the study and are useful for future development planning in the coastal region which has significant implications to the national economy.

The coastal GDP in 1983 was 35.1 while the non-coastal GDP was 64.9. These values were significantly changed during 1983 to 1989. In 1989, the coastal GDP was 40.2 while the non-coastal GDP was 59.8. The coastal GDP was further increased during the 1989-2004 period and reached to 44 percent. The non-coastal area GDP in 2004 was 56 percent. This situation is reflected in table 4.1.

Table 4.1 Trends in Coastal GDP

Sector	1983	1989	2004	2005
Coastal GDP	35.1	40.2	44	43
Non Coastal Area GDP	64.9	59.8	56	57

The coastal GDP in 2005 was given as 43 percent due to the reconstruction and rehabilitation of the Tsunami impact. Most of the Tsunami reconstruction and rehabilitation activities have been completed. Trade and tourism (30.4 percent), Manufacture (20 percent), Agriculture, forests and fishing (6.4 percent) and Transport, storage and communication (5 percent) are the dominant economic sectors for a long time. Major cities of Sri Lanka such as Colombo, Galle, Matara, Jaffna, Trincomalee, Batticaloa are the major cities in the coastal region. Of these cities, Colombo has the highest concentration of economic activity and the Provincial GDP estimations showed that the contribution of the Western Province to National GDP was 52 percent in 2001. The GDP contribution from other maritime provinces was well below that of this contribution. Well developed infrastructure facilities (power, electricity, communications), good network of roads, together with close proximity to Colombo harbour are some key reasons for this economic growth.

The total population of the maritime districts of Sri Lanka is estimated at 11.4 million. Of this over 42.7 percent live in the coastal region. This has resulted some degree of urbanization around small towns of coastal cities within a perimeter of about 50 kilometers. All the Maritime Provinces show this phenomenon to varying degree at present.

Agriculture

Plantation (tea, rubber, coconut), small scale agriculture (Paddy, other food crops, vegetables, home gardens, livestock (dairy, poultry and other animals), are key components of rural agriculture. Tea and Rubber are generally not well spread in the coastal D.S. division while coconut is grown as a monoculture or a mixed crop in home gardens. Many coastal divisional secretariat divisions have these agricultural bases. In the Eastern and Northern Provinces, coastal D.S. divisions have a large extent of paddy cultivation under rain fed/gravity irrigation.

Fishing

The fisheries sector is the major economic activity in the coastal region and is of considerable social and economic importance. During the early 90s it provided employment for about 100,000 fishermen which increased to about 250,000 persons and 0.62 million dependents in the fishing households by 2004. The fishing industry has also emerged as one of the dynamic export sectors of the economy through export of various aquatic products such as shrimps, lobsters and a variety of other sea foods at present.

Marine and brackish water (river mouths and lagoons) fisheries are concentrated along 14 coastal strip districts. The major contribution to fish production is derived from the coastal sub sector. The average annual coastal fish catch is more or less equal to the annual sustainable yield of fishery resources in the coastal water. The offshore/deep sea and the international water and inland fisheries/aquaculture are the other sub sectors of the fisheries sector and have a great potential for increasing its contribution to the total production. Since most of the unexploited marine resources are located beyond the coastal water, increasing the number of multi-day boats in the fishing fleet is an important pre-requisite to increase its contribution.

The establishment of fish processing factories, fish drying and use of fish waste as a raw material for the fish meal industry, establishment of boat repairing units, ice plants and other infrastructure facilities will facilitate the increase of value-addition to the fishing industry. Furthermore, around 40 percent of the coastal strip of Sri Lanka is located in the Northern and Eastern Provinces. The amounts of fishery resources harvested at present in these provinces and is well below the potential yield of fishery resources. Also, the contribution from the fisheries sector to the coastal GDP at present is around 3 percent, and can be doubled in future, with the execution of appropriate development projects and programmes in the fisheries sector.

Tourism

Tourism has been firmly established in the coastal districts of Sri Lanka and is emerging as the fastest growing industry. Sandy beaches, blue water, isolated pockets, mangrove forests etc. are the major tourist attractions in terms of coastal tourism. Tourism has been accorded top priority by successive governments in the past in terms of its contribution to economic growth, foreign exchange earnings, employment generation, regional development and creating multiple spin offs for rural poverty alleviation. It has been estimated that tourism has provided 125,000 direct and indirect employment, and earnings of Rs. 362.3 billion in 2005. Furthermore, 549,000 tourists visited Sri Lanka in 2005 and majority of them stayed at least one or a couple of days in a coastal beach resort.

The strategic objective of promoting the Sri Lanka tourism industry is to make Sri Lanka a regional hub in the tourism industry. Establishment of the second International Airport at Weerawila, and the proposed Hambantota port will make substantial contributions in future to bring more tourists and expand cruise operations. The new resort development programme in the Eastern and Southern Provinces (Panama, Arugam Bay, Hambantota, Unawatuna etc.) will increase tourist arrivals which in turn will increase contribution to the coastal GDP.

Inadequate infrastructure facilities such as accommodation facilities, access roads, sewerage disposal, dirty water, transport etc. in the coastal strip have slowed down the expansion of the tourist industry. New investments by the private sector and public sector in these are required to develop the tourism industry in the coastal region.

Industries

Large corporate firms, medium, small and micro enterprises, are the types of industrial establishments in Sri Lanka. Many of these industries are located in the coastal region due to developed infrastructure, availability of labour, and other inputs, and close proximity to the ports and the air port. The industries sector accounts for 27 percent of the GDP, and 24 percent of the labour force employing 1.8 million persons. The contribution from manufacturing to the coastal GDP in 2004 was 19.6 percent and there is a great potential to increase this contribution. Many of the proposed industrial estates are planned for establishment in the hinterland of the coastal D.S. divisions aimed at reducing regional disparity, poverty reduction and increasing economic development.

At present, the small and medium industries play a dominant role in the coastal region. Food processing, coir industry, paper industry, textile, garments small scale manufacturing activities etc. are well spread over the coastal strip. The contribution to coastal GDP can be increased significantly by addressing the basic problems such as lack of credit facilities, technology, availability of input, marketing problems. The availability of raw materials and other factors have been considered as favourable factors to improve the development of industries in the coastal region.

Mining and Quarrying

Sri Lanka's coastal region is well endowed with mineral resources. Corals, mineral sand, limestone, sea shells, feldspar and dolomite deposits are distributed in many locations. Beach sand is also used for constructions and earth filling. At present coral mining in the coastal zone has been banned due to adverse consequences for the sustainability of coastal and marine resources. In the Eastern Province, collection and import of mineral sands which are rich in Ilmenite, Zircon, and Rutile is carried out by the State Minerals Corporation.

The contribution of the Mining and Quarrying sector to the coastal GDP accounted for only 1.05 percent in 2004. According to Geological Survey and Mines Bureau, and Coast Conservation Department and the Central Environmental Authority and Divisional Secretariat offices in particular location, are the institutes that regulate and monitor mineral extractions in the island. Although there is a potential to increase the value addition from the mineral resources which exist on the beaches. This has to be carried out systematically without disturbance to the coastal habitats and the eco systems.

Services Sector

The Services sector comprises trade (wholesale and retail), banking, insurance, real-estate, ownership dwelling and public services and private services. These sectors contributed 49.6 percent to the coastal GDP in 2004. This shows that about 50 percent of the GDP contribution came from these sectors. The high level of economic growth in these sectors is evident and priority has been given to improve and expand these sectors.

4.2 Findings and Conclusions

- This study has brought a sharp focus in the importance of the coastal region of Sri Lanka both in terms of share of GDP in the coastal region to the National GDP and the impact of Tsunami to the coastal strip in December 2004.
- The estimates show that 44 percent of coastal GDP originates in the coastal region. Of these important sectors were the manufacturing, trade and tourism, banking, insurance and real estate and the agriculture, forest and fishing sectors. Many trade and service related activities are concentrated in the Western region around Colombo, the commercial capital. The growth and improvement of tourism and the fishing industry are facilitated by access to the sea in the coastal areas.
- The estimates of 44 percent of GDP have been obtained by disaggregating national GDP. This does not mean that about 44 percent GDP remains in the coastal region. Only a part of this amount can stay in the coastal region. Those employed in the coastal region may not be from the coastal region and the enterprises also may not be from the coastal region and take priority outside of the region.
- The impact of Tsunami on the coastal region is well reflected in the fishing and the tourism sub sectors. The damage to these sectors was significant and around 4 percent of the contribution to GDP was lost in the year 2005. The rehabilitation and reconstruction activities during the post-Tsunami period will offset the damage in future.
- The coastal environment is a part of the large ecosystem and the study covered only a part of the ecosystem. The ecosystem can be extended to a further extent in the hinterland beyond 50 kilometers of the boundary demarcated in this study. The coastal habitats are heavily susceptible to depletion and degradation due to unplanned development activities causing irreversible damage. The growing conflicts between development and use of coastal resources bring out the need for a sustainable and ecologically sound use of coastal resources among resource users, resource guardians.
- The coastal region is relatively denser than other areas in the island. The total population in the coastal region (coastal D.S. divisions with maritime boundaries) is estimated at 4.8 Million showing that 25.3 percent of the total population of the country. This will create a greater pressure on coastal resources in future due to the combination of development activities and demographic factors.
- Agriculture is not a dominant economic activity in the entire coastal region. However, in certain D.S. divisions in the Northern, Eastern and Southern provinces, certain

agricultural activities (paddy, other food crops and coconut) play a significant role. Coconut and other perennials are cultivated as a mixed crop in home gardens rather than as a monoculture. Poultry and dairy are also carried out in certain D.S. divisions.

- The analysis of the GDP contribution since 1983 shows that there is an increasing contribution of the coastal GDP to the total. The trends have significant implications for the coastal economy particularly in the agriculture, forestry and fishing, and the trade, and tourism sectors. Since the objectives and requisites needed for expansion of tourism and fishing are different, appropriate action is required to address the user conflicts in these areas.
- The study shows that there has been a high level of economic development in the coastal region during the last two decades. Fishing, tourism, industries and services sector were the major areas showing this development. The coastal environment is the primary source providing inputs for this development resulting in degradation and depletion of some coastal habitats. Increasing salinity levels in lagoon, depletion of coral reefs, deforestation of mangrove ecosystem, coastal erosion etc. have been experienced. These examples indicate the growing conflicts between development and resource use which can lead to slow down the sustainable development in the coastal region in future.
- Demographic factors and development factors have become significantly important over the past decade. At present the total estimated population of Sri Lanka is 19.19 million. Of these 11.36 million persons live in coastal districts amounting to about 59 percent. The estimated population living in the Coastal Division Secretariat Divisions is 4.85 million or 25 percent which is a significant number of the total population. A large number of people visit the coastal region daily for a variety of economic activities and return to their original homes in the afternoon utilizing resources in the coastal region.
- One of the other important factors in relation to coastal environment is the nature of ownership in it. The common property nature of ownership of the coastal habitats needs special attention and the imposition of strict regulations and protection by regulators. Lagoons, estuaries, beaches, mangroves, grasslands, coral reefs etc. are subjected to overexploitation and this can result in the disturbance of the natural balance of the coastal environment and life style of coastal habitats. These exploitations can increase the national income in the short run but reduce it in the long run creating a reduction in the poorer segment of the coastal population in future.

4.3 Recommendations

1. The primary challenges confronting the Sri Lankan economy over the next decade are accelerating economic growth, reducing poverty and regional disparity among different provinces/sub national areas, and ensuring a high quality of living standards for the population (Ten Year Development Framework 2006-2016).
2. Increasing and expanding of new economic activities in the coastal region, improvement of the efficiency and productivity of on-going activities without harming to the coastal

environment are the key components of achieving higher sustainable economic growth. For instance, the estimated GDP value in the Eastern Province in 2003 was Rs. 44,700 million and it is predicted to increase the value to Rs. 118,700 million by 2010 by adopting above strategies. Crop agriculture, livestock, fisheries, infrastructure and other services are the key sectors in this regard.

3. Strategies on improving economic infrastructure, service infrastructure, fostering social infrastructure, development of human settlement, improving the intra and inter connectivity of the region will facilitate to reduce regional disparity.
4. At present several development plans have been formulated and implemented covering above areas. The Ten Year Development Programme, the Revised Coastal Resources Management Plan, Mahinda Randora Programme (Hambantota, Puttalam, Trincomalee) are some of them. Three Year Development Plan of the Eastern Province etc. are the major ones. Coastal region is well covered in these plans. Proper coordination among various agencies, monitoring and evaluation should be given more attention during implementation of these plans and programmes.
5. Since over 50 percent of the total population live in maritime districts and of this 42.7 percent live in the coastal region, the coastal region has to play a great part in meeting the major challenges of the nation. Identification of potential economic activities which can meet the above challenges without disturbing to the coastal environment and a positive impact to the economy is very crucial in this regard. A detailed socio-economic survey and evaluation of these activities are useful to identify proper strategies in the medium and long run.
6. Fishing, tourism, trade & industries are the key sectors which can make a great impact on economic development in the coastal region relative to other sub sectors due to the comparative nature of factors involved. Well planned vision, objectives, strategies, projects and programmes therefore are necessary to speed the development of the coastal region in this context.
7. Input- output analysis is one of the planning techniques used to examine relationship between input and output. This technique may be very useful to identify the link between inputs of the coastal region and its output to the economy. This can be used for predicting/forecasting future outputs. This method can be modified to examine the relationship between coastal eco systems in the coastal region and the rest of the eco systems in the hinterland.
8. The structure and size of the agriculture and manufacturing sectors have significant implications for the development of the economy in the coastal region. The farm lands in the coastal region are characterized by small holdings and homesteads. It is difficult to aggregate them into larger units and therefore policy should be focused on increasing profitability by preserving the pattern of small farms and gardens by encouraging diversification and complementary activities. The small and medium industries which can be reviewed as the backbone of industry in the coastal region should aim at providing new technology, removing barriers in the factor and product markets. The existing thin nature of the SME product should be developed to meet the increasing tourists in the coastal region.

9. The growing conflicts between development and coastal resources use in the coastal strip can be minimized through increasing awareness of the coastal community created by the Coast Conservation Department and relevant authorities, and this can lead to reduction in the damage to the coastal resources. Also structured tourism such as increasing nature tourism (eco-tourism and a fewer number of buildings) can reduce disturbance to the coastal habitats.
10. The undisturbed coastal habitats such as sand dunes, mangrove forests, reefs, etc. functioned as barriers during the Tsunami disaster. This shows the importance of natural barriers. It has been reported that natural regeneration of the coastal flora is best in conserving natural resources in the Eastern coastal strip. Emphasis should be given therefore for natural regeneration to protect the coastal environment in appropriate locations.
11. The Special Area Management Plan is identified as one of the major types of sub-national development planning techniques to improve and accelerate economic growth. At present 65 sites have been identified. Since implementation of these sites at once needs a large amount of financial and human resources, prioritization and gradual implementation based on the priority list is recommended.
12. The present study was conducted after 15 years of the previous study of the economic significance of the coastal region. Therefore an economic significance study should be conducted at least once every few years period to make development decisions in the coastal region.
13. The study also shows the interrelation between the factor and product market in the coastal region both the coastal environment and the hinterland. Therefore, officially the regulators of the coastal environment should pay increased attention to the development related activities in the hinterland adjacent to the coastal environment which needs expanding their jurisdiction.
14. The implementation of the identified policies in coastal 2000 is also important for sustainable coastal resource management.
15. Eco tourism, traditional food and customs, ayurvedic treatment, archaeological and religious places, are emerging areas other than those of conventional tourism. These areas should be developed to reap the benefits of coastal tourism in future.
16. Fishing is the traditional livelihood of the coastal population and will remain so far some more years. Measures to increase its profitability by conserving maximum sustainable yield levels and not exceeding carrying capacity of the coastal waters are important.
17. The methodology used in this study is appropriate. Development of suitable indicators and use in future study is recommended.
18. It has been revealed that the present level of coordination between Coast Conservation Department (CCD) and sub-national agencies is at sub-optimal. Therefore, strengthening coordination is very useful.
19. The CCD officials should collect data and information based on appropriate indicators and compute the Coastal GDP following this methodology in regular intervals.

20. The coastal environment is an important component of the natural environment. At present the coordination between CCD and MENR is inadequate. Therefore improving the coordination between these two agencies is an important pre-requisite for the conservation of environment.

Recommendations of CCD for Socio Economic Study

1. In the coastal region many programs, policies and regulations are active for the environmental and economic enhancement. Effectiveness of such actions has to be monitored and evaluated by measuring the growth of economy and the status of environment through selected environmentally linked economic parameters. Regular monitoring at least in district level should be conducted and the regional development plans could be in place to improve the weak areas, identified through monitoring process.
2. There are many data collection programs up to the divisional secretary level and most of the data could be used for economic analysis. Regional staff of CCD shall be utilized for the purpose. But for the better results the data collection formats should be improved in accordance with the indicators selected. Special attention should be drawn to the North & East Provinces.
3. The selections of economic indicators are most important and the indicators, which are used for the study, should be improved and described to determine the productivity of coastal ecosystems and other resources. Economic & Environmental Objectives of all the sectors involved in the coastal region shall be obtained for better description of the indicators. Economic & Environment linkages should be determined and policy updates, regulations, development projects shall be proposed accordingly.
4. The data and findings of the study shall be analyzed and presented graphically with the use of computer software such as Arc GIS, Ms Excel etc. The results should be adopted in next CZMP and updating of Environmental policies and regulations for the sustainability of coastal resources.

4.4 Constraints and Difficulties faced during the Study

The study team wishes to extend their sincere gratitude to the support given by officers in various public sector institutions (Coast Conservation Department, Ministry of Environment & Natural Resources, etc.), and professionals in various relevant agencies in relation to data and information collection and interpretation. However, it is important to record that following constraints have been experienced during the study period. This has resulted some delays in preparing the final draft, but did not affect to the quality of the report.

- Unavailability of published provincial and district level sectoral and GDP data at provinces and districts. Mining and Quarrying, manufacturing, S.M.I etc. are examples for this situation.
- Reluctant to share data and information by many public sector institutions. They usually consider that sharing data and information facilitate to loose their power rather than use in decision making in economic development.

- Poor response in participating seminars and provision of feed back for research findings during presentations. The research team did not receive any response from the Central Bank of Sri Lanka in preparing the coastal GDP. National Accounts of the Country while the attendance also at sub optimal.
- The coordination and communication between the officials of Coast Conservation Department and sub-national level officers are also at sub-optimal level.
- Sudden changes in the TOR of the study has resulted some delays in drafting the final report
- Inconsistencies in estimation of Tsunami damages and recoveries by different agencies in the past and few numbers of reports prepared by them.
- Inherent weaknesses in the data and information, research and evaluation net work system in Sri Lanka has made some difficulties in collection and evaluation of data and information with regard to this study.
- The collection and estimation of the current data in the service sector such as professional services, hotel and restaurant services, other personal services(beauty saloon, motor garage services etc.) and government services are not in line with the future development needs of the country. Because most of the current year figures(or subsequence year) are obtained by multiplying the base year figures by index of the growth of the relevant sector. The current figures are not compiling annually or regular basis. Certain data and information are not available and creating difficulties in predictions.

4.5 Estimation of Coastal GDP in Future

- This study has evaluated the changes of major economic activities during the last decade and the impact of tsunami which occurred in 2004 December. The present study was conducted after 15 years of the previous study on economic significance of the coastal region. The coastal region is the most important region in terms of economic development and natural environment in the country. Therefore, the study team suggests to conduct similar studies once in every five years to make rational economic decisions.
- An input-output table is viewed as a collection of data describing the particular characteristics of any economic system. It also used as an analytical technique for explaining and influencing the behaviour of the system at a certain point in time or over the course of time. The basic notion of input – output analysis rests on the belief that the economy of any country can be divided into distinct number of sectors. Incorporation of environment and its services as a sector in the input-output table will provide the contribution of environment into economic development. The input-output table provides a convenient framework for measuring and tracing these inter-industry flows of current inputs and outputs among various sectors of the economy. Therefore, the study team suggests compilation of I-O table on input-output study incorporating environment in future studies.

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Classification of economic sector

This study has disaggregated the GDP in 2004 at Constant price (1996) published by the Central Bank of Sri Lanka Annual Report in 2005. The Central Bank of Sri Lanka Follows the standard classification of UN System of National Account and Sri Lankan Economy has been broken down into nine categories as follows;

1. Agriculture, Forestry and Fishing
 - 1.1 Agriculture
 - Tea
 - Rubber
 - Coconut
 - Paddy
 - Other
 - 1.2 Forestry
 - 1.3 Fishing
2. Mining and Quarrying
3. Manufacturing
 - 3.1 Processing of Tea, Rubber, and Coconut Kernel Products
 - 3.2 Factory industry
 - 3.3 Small industry
4. Electricity and water
 - 4.1 Electricity
 - 4.2 Water
5. Construction
6. Wholesale and Retail Trade and Hotels and Restaurants
 - 6.1 Import Trade
 - 6.2 Export trade
 - 6.3 Domestic trade
 - 6.4 Hotels and Restaurants
7. Transport, Storage and communications
 - 7.1 Transport
 - 7.2 Cargo handling, Storage and Warehousing
 - 7.3 Post and telecommunication.
8. Financial Services, Real Estate, Renting and Business Services
 - 8.1 Financial Services
 - 8.2 Real Estate, Renting and Business Services

9. Public Administration, Other Government Services, Defence, Other Community, Social and Personal Service.
 - 9.1 Public Administration , Other Government Services and Defence
 - 9.2 Other Community, Social and Personal Services

This study has followed same classifications of the above sectors such as Mining and Quarrying, Manufacturing, Construction, Electricity and Water. Other sectors have been taken with small adjustments.

Fishing sub sector in the Agriculture is divided into two sectors as

1. Coastal Fishery
2. Inland Fishery

Coastal fishery sector covers all fishing caught (marine) from the coastal sea and off sea by vessels, boats and fishing crafts etc.

Inland Fishery sector includes all fishing activities and extracted fishery products in fresh water ponds, lagoons, lakes and rivers etc.

Transport sector has been broken down into four major sectors such as Road (land) Transport, Rail transport, Water Transport and Air transport.

Road Transport Includes the transportation of passengers and economic activities of buses, lorries, dual purpose vehicles, three wheelers, and heavy vehicles.

Air Transport consists of flights and cargo by air, economic activities of terminal facilities, operation of air ports.

Water Transport covers the operation of freight by Water, port cargo loaded unloaded in ports and hourbours.

Communication sector refers to Cargo handling, Storage and Warehousing, and Post and Communication.

This study has aggregated Wholesale and Retail Trade and Hotels and Restaurants sector into two main sectors as Trade, Tourism.

Trade sector refers to wholesaling and retailing activities in terms of exports, imports and local trade. Wholesale trade is the selling without transformation of new and used goods to industrial, commercial, institutional users, to wholesalers in bulk while the Retail trade consists selling without transformation of new and used goods in small quantities.

Tourism sector includes activities and operation of hotels, motels, guesthouses, restaurants and tourist arrivals.

Financial Services, Real Estate, Renting and Business Services were classified into to main two sectors such as, Banking ,insurance and real estates, and Ownership and dwelling .

Banking, Insurance and Real Estate refers to the incorporated and un incorporated enterprises, which are primarily engaged in financial transactions consisting of both incurring liabilities and acquiring financial assets. The Banking sector covers commercial banks, private banks, rural banks, savings and mortgage banks, loan associations and government banks. Non- banking includes all financial companies, security dealers and brokers, investment houses, and other services types of financial intermediaries. The Insurance sector covers insurance carriers of all kinds of risks, life and non life, insurance agents, and brokers, and insurance service agencies. Real Estates industry sector encompasses the management and operation of real estates, the activities of real estates agents, brokers and managers engaged in renting, buying, selling, managing and appraising real estates on a contract or fee basis.

Public Administration, Other Government Services, Defence, Other Community, Social and Personal Service sector has been broken down into two major sectors as Public sector and Private sector and Public sector further divided into three sub sectors.

They are the services of the national, local government and security forces.

Defence and Administration includes the activities and operation of security forces, activities of national and local government agencies.

The Health sector refers to the activities and services provided by government hospitals, state medical institutes and clinics.

Government Education sector includes the operation and activities of schools, technical colleges, universities and other training institutes which are maintained by the government and local authorities.

The Private Service Sector refers to the business, educational, medical and health, recreational, personal and other private services. Producers of these services are the profit making industries, private non profit organizations engage mostly in social and community services and householders rendering services to others.