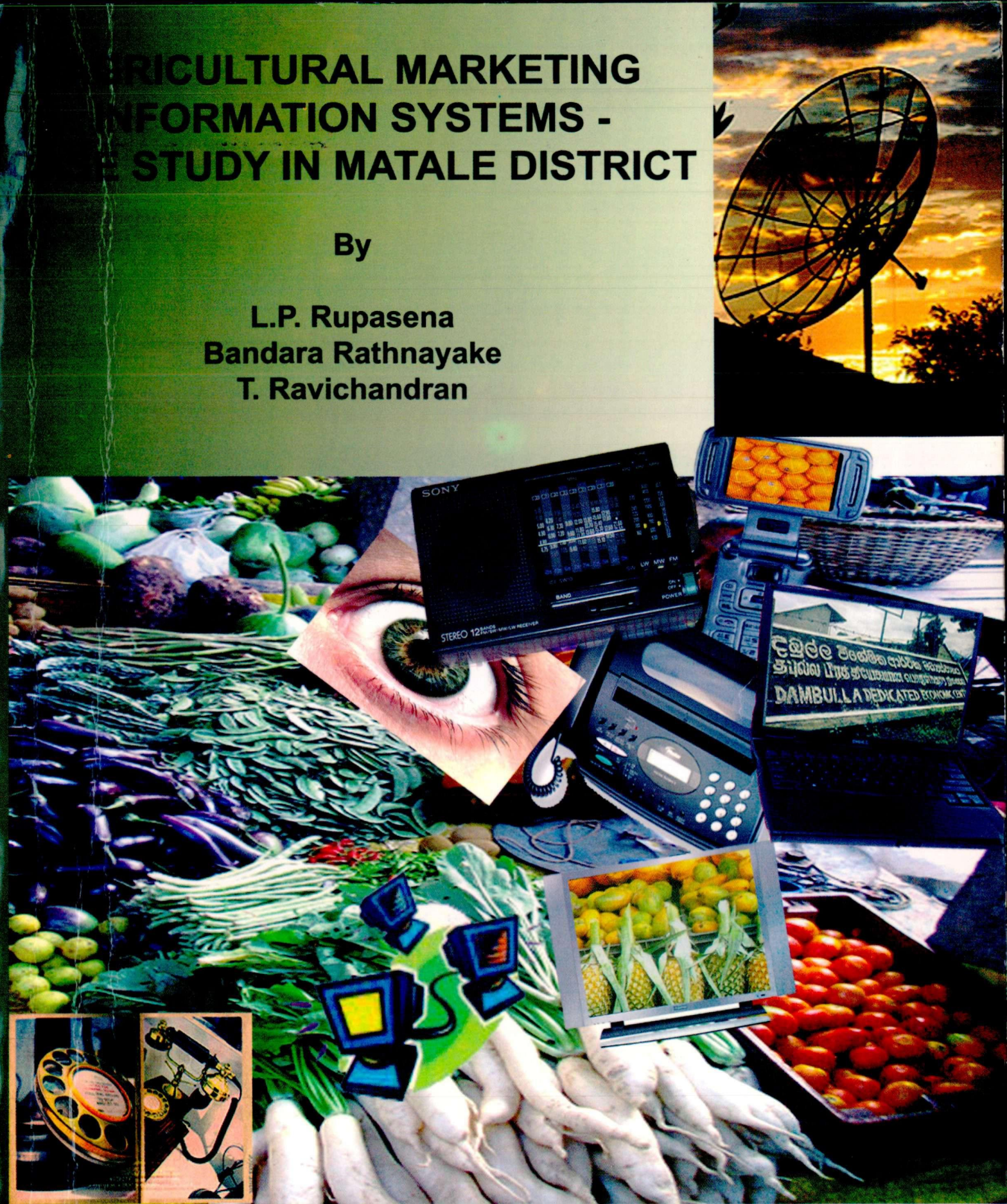


AGRICULTURAL MARKETING INFORMATION SYSTEMS - A STUDY IN MATALE DISTRICT

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2010/0h

2009/06

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CASE STUDY IN MATALE DISTRICT**

MF 2 10420

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Research Study No. 123

December 2007



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21624

First Published 2007

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ISBN : 978-955-612-075-2


Cover Page Design : Miss. Dilini Rathnayake

Foreword

The Regional Economic Advancement Project (REAP) office in Matale assigned this study to the Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI). The objective of the study was to recommend an appropriate and sustainable Agricultural Marketing Information System (AGMARIS) for the Matale district. Setting up an AGMARIS at district level is necessary to access market information by the stakeholders, specially farmers who operate at production level. AGMARIS helps market participants to make informed decision in their respective areas. For instance, the farmer can utilize market information to decide what and when to plant; when and where to sell and at what price. It is therefore necessary to set up a Marketing Information Unit (MIU) at district level to provide timely, accurate and relevant information on a continuous basis. I thank the Matale REAP office for initiating this exercise.

This report has recommended setting up of a Market Information Unit at the Dambulla Dedicated Economic Center (DDEC) after carrying out an indepth study at the ground level. In this exercise, the researchers studied the existing market information systems, activities of the DDEC and views of the beneficiaries such as farmers, traders and policy makers. Finally, the proposed action plan was presented at a workshop organized by the REAP office and finalized it incorporating the workshop comments. In this context, it is an acceptable and readymade plan for implementation.

I would like to express my gratitude to the REAP office in Matale for offering this study to the institute and supporting to undertake it and the research team for timely completion of the study.



V.K. Nanayakkara
Director

Acknowledgement

It would not have been possible to complete this report in a month's time without the active support of many individuals and institutions. The report is mainly based on the primary data collected by a survey team consisting of eight members, namely Messrs. U. Arunashantha, J.C.K.B.Lionel, M.L. Nandasiri, N.S.J.K. Nissanka, K.A.R. Pathmasiri, S. Pinnawala, A. Rathnasiri and S.S.J. Rosa. They had to stay in the Dambulla Dedicated Economic Center (DDEC) from 2.00 pm to mid night for seven consecutive days to interview buyers and transporters and to collect prices. This was a difficult task but they did it well. We thank every one of them for the excellent work. We were able to conduct a survey in the DDEC due to support given by Mr. Prasad Warnasuriya, Manager, DDEC and Mr. Mangala Wijeratna, Chairman of the Trade Association at DDEC. We thank them.

We cannot forget the respondents who are most important in a survey of this nature where primary data contains the major part. We thank all the respondents i.e farmers, traders and officers who supported us by providing information and data required for the study. Special thanks are due to Mr. A.N.U. Dissanayake, Deputy Director of Department of Census and Statistics and Mr. D.C.A. Gunawardena, Deputy Director of Department of Census and Statistics as well as Dr. Anila Dias Bandaranaike, Director, Department of Statistics and her staff in the Central Bank of Sri Lanka for providing necessary data and information.

We thank Mr. Anura Dissanayake, the Project Director and his staff in the REAP office, Matale for helping us in a number of ways such as financing, timely co-ordination and organizing two workshops for presenting the draft proposal and the findings of the study. The REAP comments on the research proposal and the draft report are greatly appreciated. Thanks are also due to the participants who attended the final workshop for having fruitful discussions and sending written comments, which were useful us in the preparation of the final report.

We greatly appreciate the support given by late Dr. S.G. Samarasinghe, the former Director, HARTI to undertake the study and Mr. V.K. Nanayakkara, the present Director and Dr. W.G. Jayasena, Deputy Director (Research) to publish this report.

Thanks are also due to Mr. H.A. Siriwardena, an outside copy editor for editing this report, and Mr. S. Rameshwaran, Acting Head, Publication Unit for final editing and, Mrs. K.G.D.K.S. Karunaratne, and Mr. L.A. Palitha Gunaratne for word processing and the printing staff of HARTI for printing the report.

L.P. Rupasena/ Research Fellow/HARTI
Bandara Rathnayake/Research Associate/HARTI
T. Ravichandran/Senior Research Officer/HARTI

Executive Summary

The Regional Economic Advancement Project (REAP) Office in Matale commissioned the Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) to undertake this study, for the purpose of assessing the present market status and current information system in operation in the country and recommend a sustainable Market Information System (MIS) for the Matale district. The study has three components: 1) conduct a Market Information Needs Assessment (MINA), 2) review the present market information systems, and 3) recommend a suitable market information system for the Matale district. To ascertain the marketing situation, a quantity monitoring survey and a price survey were carried out in the Dambulla Dedicated Economic Center (DDEC), which is the main marketing center in Matale District and also the second largest wholesale market in the country. Rapid Marketing Appraisal (RMA) techniques were applied to review the existing MIS and to examine the demand for market information.

The quantity monitoring survey reveals that the weekly arrivals amounted to 2,600 mt. of goods of which, the bulk consisted of vegetables supplied by the collectors (46%), farmers (36%) and the DDEC traders (18%). The farmers share was registered low since the survey in January coincided with the off season in the district. Although 15 out of 25 districts supplied commodities to the DDEC, 62% of the total quantity for the week concerned represented only three districts, Nuwara-Eliya (23%), Anuradhapura (23%) and Matale (16%). Farmer group interviews revealed that over 90% of the farmers bring vegetables to the DDEC for sale. Demand for the products from DDEC was somewhat widely distributed. Stocks moved to 20 districts, with 60% of the weekly purchases passing to six districts: Kurunegala (13%), Kandy (12%), Anuradhapura (10%), Trincomalee (9%), Kegalle (9%) and Polonnaruwa (8%). The major buyers are retailers (47%), wholesalers cum retailers (31%) and wholesalers (20%) accounting for 98% of the weekly purchases. Buyers are attracted to the DDEC due to a number of reasons such as adequate space for vehicle parking; buying and loading; availability of a variety of commodities; the availability of night services; better quality of products compared to that of Colombo and stronger bargaining power against the farmers.

Operation of the DDEC appeared to be satisfactory. The farmers and the DDEC traders have good relationships with each other. A very few farmers complained the malpractices resorted to by the DDEC traders. Farmers indebtedness to the traders is negligible and almost all the farmers are of the view that they can change the traders, but the need has not arisen yet. Most of the transactions are on the spot cash basis. Though the buyers complained of the quality, wastage reported by them was significantly low compared to the wastes in relation to the vegetables purchased from the Manning market in Colombo. However, keeping the market open round the clock has an adverse impact on market operations. The buyers stay long hours in the market till farmers get impatient to go home due to transport difficulties. This provides an opportunity to purchase goods at low prices, which drop dramatically after 6.00 p.m. Productivity of the market operators, especially labourers is likely to be low due to staying awake for long hours. Furthermore, it was found that trading after mid night is insignificant and keeping the market open throughout the night is not cost effective. Inadequate water supply and dirty toilets worsen the situation more.

Market Information needs assessments survey was conducted among farmers, traders and policy makers. There is a strong demand for price information from young farmers. They are aware of the usefulness of prices in decision making. Older farmers need training on the use of market information in production and marketing decisions. Farmers mainly depend on their colleagues for price information. Farmers also look for information on post harvest activities because they have realized the importance of quality in marketing resulting from their experience at the DDEC. For the price information, the traders resort to telephone messages to the buyers. It was also found that traders are discontent about dissemination of price information as it reduces their bargaining power to purchase goods at low prices. They need information more on production and the government policies. The policy makers at district or provincial levels have limited interest about market information perhaps because many decisions are taken at the central government level. However, with the increasing demand for market information from policy makers at national level, a similar situation will immerse at district level, following the government plans to involve the district staff to iron out the marketing problems.

A review of the present MIS reveals that marketing news service is far from satisfactory in the country despite a number of organizations involved. Also most of the information is not available on time and have difficulties to access. Information coverage is inadequate though MIS has been operating for years. A production information monitoring system is not in operation. Information on marketing costs such as transport, loading and unloading, wastage and traders' profit is totally lacking. The country has links with the global economy and the mechanism to ascertain the changes in the internal market and integrate with the outside market needs strengthening. Also, a wealth of time series data available on production and marketing awaits analysis. Therefore, the overall marketing intelligence and advisory services are not operating satisfactorily. Furthermore, duplication of work and considerable differences in the same data collected by various organizations add to the confusion and wastage of scarce resources, underscoring the need for better co-ordination.

On the basis of the study findings, a recommendation was made to establish a Market Information Unit (MIU) at the DDEC, vested with the responsibility of Market News Service (MNS), Market Analysis Services (MAS) and Marketing Extension/Advisory Service (MEAS) to be implemented in collaboration with other agencies involved in this area. This is vitally important to avoid the duplication of work. The MNS, which includes collection of daily prices and market conditions at the DDEC and dissemination of such information of the same day should be launched first. Time of price collection, variety of commodities and the price collecting techniques are important factors to be considered in designing the MNS because accuracy and relevancy of prices depend on these three factors. Implementation guidelines to undertake these activities are presented in the study. The study also stresses the need to train the MIU staff in the MIS operation and the farmers in the application of market information in farming decisions. There is an excellent opportunity to train the farmers at the DDEC through the use of video footage, because over 700 farmers visit it daily. Development of farmer-trader linkages is also recommended to be implemented by the MIU as the DDEC is expanding as a buyers' market. In such a market, the prices offered to the farmers are low and even now, the prices of many commodities in the DDEC are considerably low compared to those in Colombo.

Table of Content

	Page
Foreword	i
Acknowledgement	ii
Executive Summary	iii
Table of Contents	v
List of Tables	vii
List of Annexes	vii
List of Charts	viii
List of Figures	viii
 CHAPTER ONE	 01
Introduction	01
1.1 Background	01
1.2 Objectives of the Study	01
1.3 Methodology	02
1.4 Research Team	03
1.5 Limitations of the Study	04
1.6 Organization of the Report	04
 CHAPTER TWO	 05
An Overview of Matale District	05
2.1 Background	05
2.2 Agriculture	05
2.3 Marketing	07
 CHAPTER THREE	 09
Organization of Dambulla Dedicated Economic Center	09
3.1 Introduction	09
3.2 Market Organization	09
3.2.1 Types of the Participants	10
3.2.1.1 Commission Traders	10
3.2.1.2 Farmers	14
3.2.1.3 Collectors	14
3.2.1.4 Buyers	15
3.2.2 Conditions of Entry and Exit in the Market	16
3.2.3 Supply Sources and Areas	17
3.2.4 Demand Sources and Areas	19
3.3 Competition	19
 CHAPATER FOUR	 22
Operation of Dambulla Dedicated Economic Center	22
4.1 Exchange Functions	22
4.1.1 Price formation through Demand and Supply	23
4.1.2 Other Factors Affecting Price Setting	28
4.2 Distribution Functions	28
4.2.1 Transport	28
4.2.2 Handling	31

4.2.3 Storage	31
4. 3 Facilitative Functions	31
4.3.1 Packing and Standardization	31
4.3.2 Marketing Credit	31
4.3.3 Financing	32
4.3.4 Market Intelligence	32
4.4 Problems/Constraints and Solutions	32
CHAPTER FIVE	34
Current Agricultural Marketing Information Systems	34
5.1 Hector Kobbakaduwa Agrarian Research and Training Institute (HARTI)	34
5.2 Department of Census and Statistics (DCS)	35
5.3 Central Bank of Sri Lanka (CBSL)	36
5.4 Department of Agriculture (DA)	37
5.5 Problems and Constrains in the Current Market Information System	38
CHAPTER SIX	39
Market Information Needs Assessment	39
6.1 Farmers' Survey	39
6.2 Traders' Survey	42
6.3 Policymakers' Survey	42
CHAPTER SEVEN	
Establishment of Marketing Centers in the Matale District	44
7.1 The Positive Factors	44
7.2 The Negative Factors	45
CHAPTER EIGHT	
Proposed Market Information System for Matale District	46
8.1 Introduction	46
8.2 Establishment of a Market Information Unit (MIU)	46
8.2.1 Location	46
8.2.2 Functions	47
8.2.2.1 Market News Service (MNS)	47
8.2.2.2 Market Analysis Service (MAS)	50
8.2.2.3 Marketing Extension Advisory Service (MEAS)	50
8.3 Training Needs	51
8.4.Implementation Mechanism and Resource Requirements	51
References	52

List of Tables

	Page
2.1 Production of Selected Crops in Matale District 1995 – 1999	06
2.2 Major Crops Grown in the Matale District by Agricultural Instructor's Divisions	08
3.1 Commodity Specialization in DDEC	13
3.2 Market Inflow by Type of Suppliers, 20 - 26 January 2001	14
3.3 Market Outflow by Type of Buyers, 20 - 26 January 2001	15
3.4 Buyer's Traveling Time to the Dambulla Market	16
3.5 Main Supply Districts to the Dedicated Economic Center	17
3.6 Time of Arrival of Vehicles and Quantity of Produce, 20-26 January 2001	19
3.7 Demand Districts to the Dedicated Economic Center	21
4.1 Wastage of Vegetables per Bag	23
4.2 Buyer's Time Spent in the Dambulla Market	23
4.3 Price Comparison between Dambulla and Colombo Markets	27
4.4 Type of Arrival and Departure Vehicles, 20 - 26 January 2001	29
4.5 Departure Time of Vehicles and Quantity of Produce, 20 - 26 January 2001	30

List of Annexes

1 - a. Average Extent under Vegetable Cultivation by AI Division, Maha Season, 1998 – 2000	53
1 - b. Average Extent under Vegetable Cultivation by AI Division, Yala Season, 1998 – 2000	55
2. Supply Areas by Districts	57
3. Major Commodities Supplied to the Dambulla Market by Districts, 20 - 26 January 2001	60
4. Demand Areas by Districts	61
5. Wholesale Prices of Vegetables in Dambulla and Colombo Markets	63-84
6. Commodity Specification by Variety and Location	96

List of Charts

	Page
3.1 Layout of the Dambulla Dedicated Economic Center	11
3.2 Inflow and Outflow of the Dambulla Dedicated Economic Center	12
3.3 Illustrative Locations Supplying Produces to the DDEC, 20-26 January 2001	18
3.4 Demand Districts to the DDEC, 20 - 26 January 2001	20
4.1 Average Wholesale Price of Selected Vegetables at Dambulla Market by Times 20 -26 January 2001	25
6.1 Study Locations of Farmer Survey	40
8.1 Proposed Market Information Unit at DDEC	48

List of Figures

1. Price Fluctuation in the Dambulla Market	85-95
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Chapter One

Introduction

1.1 Background

This study was commissioned to the Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) by the Regional Economic Advancement Project (REAP) office in Matale. The main objective of the REAP is raising and sustaining income of the poor rural farm families in the district; a goal expected to be met by developing commercial farming through improved technology, information and marketing facilities. In the process of transformation of agriculture from subsistence into commercial level, the farmers need market information to decide on the choice of crops to be cultivated at the correct time and also information on the prices and awareness of marketing. Traders need market information to take similar decisions on purchasing, selling and storage followed by policy makers who require such information to formulate policies on food supply, demand, consumption and trading, and to impose market regulations. The end result of market information are lowering the risks in decision making, enhancing market transparency and the formulation of accurate policies. The importance of marketing information prompt the REAP office to establish a Market Information System for the Matale district.

1.2 Objectives of the Study

As indicated in the Terms of Reference (TOR) of the study, the purpose of the study is to conduct a market development study to assess the present market status and current information system in operation in various agencies in the country and recommend a proper and sustainable Market Information System (MIS) at the DDEC. Later, the REAP office requested to add one more objective to the original TOR, to explore the possibilities of setting up new market centers in the Matale district. Accordingly, this study focuses on four main components.

1. Conduct a Market Information Needs Assessment (MINA) to identify and take stock of the different types of information users, their information needs and information gathering habits to ascertain the commodity marketing channels and judge the commodity specification appropriate to information collection, processing and dissemination.
2. Review the present market information collection, processing, analysis and dissemination procedures. This includes agencies involved, information coverage, methodology used, dissemination techniques, principal users and shortfalls in the system.
3. Suggest a suitable information system for the Matale district to be practically developed and maintained for the efficient dissemination of the required information to the potential users.

4. Explore the possibilities of establishing sub-collecting centers/distribution centers within the Matale district.

1.3 Methodology

This section describes the procedural aspects of the study. The proposed study plan was presented to the REAP staff in January 2001 and was finalized after incorporating their comments. As indicated in the TOR, the major output of this study would be to establish a market information system at the DDEC, for the achievement of which the following issues were addressed to during the course of the study.

- Organization and operation of the Dedicated Economic Center at Dambulla - This component includes an examination of the type of buyers and sellers; commodity, financial and information flows and internal operations in the market such as grading, sorting, packing and pricing.
- Demand for information - It is apparent that the traders and the policy makers require information for the process of decision making. For example, the traders require information on market arrivals to determine the price. The policy makers often get information from government sources such as the HARTI, the Department of Agriculture (DOA), the Department of Census and Statistics (DSC) and the Central Bank of Sri Lanka (CBSL). However, the use of market information by the farmers for decision making leaves much to be desired. Many argue that the farmers do not use market information. The Food and Agriculture Organization (FAO) has found that the farmers in the developing countries are not well versed in the application of market information in decision making and has suggested the need for training to rectify this situation. In some instances, the farmer cannot make a decision as a buyer since he depends on a particular trader because of the indebtedness to that trader. Similarly, there are farmers who lack alternative marketing channels in the area. In these circumstances, the farmers are not very much concerned with market information. All these aspects were taken into account in the study.
- Type of information required - Market information deals with agricultural input, production, market arrivals, stocks, prices, trade profits and market regulations and policies. Interest about the information may vary depending on the market participants. For example, the farmers' highest priority may be the price information and the traders are concerned the production information.
- Collection, processing, analysis and dissemination procedures of market information and use of such information in the decision making process - Emphasis was given to evaluate the use of daily price information telecast at the Dambulla Dedicated Economic Center.

Rapid Marketing Appraisal (RMA) techniques such as key informant interviews, and focus group interviews were applied to collect information on existing MIS and demand for market information. Team leader of the study had discussions with the relevant officials at the Department of Census and Statistics and the Central Bank of Sri Lanka.

The relevant information of the Department of Agriculture (DOA) and the Export Development Board (EDB) were obtained over the telephone. The RMA research team consisting of three researchers of the HARTI including the team leader conducted key informant interviews and group discussions in the major vegetable, big onion and chilli production areas of the Matale district to assess the marketing situation and demand for market information.

Two surveys were carried out for monitoring the prices and the market arrivals/departure at the DDEC, to understand the daily price variations and the supply and demand flow of the commodities. Eight Research Assistants (RAs) of the HARTI, experienced in conducting research of this nature were employed to conduct these two surveys. Prior to the surveys, they were given an orientation at a workshop to explain the study objectives and the way of conducting these surveys. A rehearsal was also conducted at the DDEC. The two surveys went on for seven days at the DDEC from 2.00 a.m to 12.00 midnight. One RA collected the prices five times during the period concerned and observed the price determination mechanism. Six RAs, one for each lane, gathered information on the inflow and the outflow of the produce, by interviewing both the traders and the transporters in all the incoming and outgoing lorries. Three researchers were with the RAs to supervise their work, while observing the market activities and interviewing the buyers to the market. A brainstorming session was held every morning to discuss the work of the previous day.

Question guides were prepared for the main target groups of the farmers and the wholesalers, along with two schedules to collect information on arrival and departure of lorries. Information collection commenced at the DDEC and expanded to other directions based on such information. Field reports were prepared at the end of each day and the data collected from two surveys were processed in the field itself. Descriptive statistics such as range, average and percentage were calculated and tabular analysis was applied to ascertain the relationship between two variables concerned such as the vehicle arrivals and the time period of the day and the supply locations and the quantity supplied.

The study focuses on vegetables, and spices were not taken into account because a market information system for spices has been proposed under the Second-Perennial Crop Development Project. Vegetables and spices are two major commodity groups in the Matale district. In fact, MIS is often developed to cover a few commodities and more commodities added gradually. Selection of commodities depends on the price variation and the importance to the economy.

1.4 Research Team

Mr. L.P. Rupasena, Marketing Economist/Consultant, HARTI - MSc in Agricultural Marketing, Malaysia.

Mr. Bandara Ratnayake, Communication Specialist, HARTI - MSc in Development Communication, Philippines.

Mr. T. Ravichandram, International Trade Specialist, HARTI - MSc in International Relations, USSR.

1.5 Limitation of the Study

Three major constraints, characterize the study - timing, financing and information. Six weeks allocated for the study necessitated a very tight time schedule. Of this time period, two weeks accounted for the collection of information. Both research and survey teams had to stay at the market from 2.00 a.m to 12 mid-night continuously for seven days. The survey team had to work without a break specially because of the arrival of vehicles continuously and had to attend to data editing, processing, computerizing and tabulating. The research team conducted the farmer and/trader surveys in the major producing areas in the morning session of the day. In the mean time, a brainstorming session was conducted every morning.

Initially, a budget was prepared for two research assistants and two researchers, but eight research assistants, and three researchers had to be developed for field surveys. Similarly, two vehicles had to be retained in the field for ten days. However, these issues were ironed out with HARTI support. In fact, the Ministry of Agriculture and the Ministry of Food and Marketing were also concerned with the study of the operation of the DDEC because the government plans to expand this program to the other areas, as well.

Contacts with the government officers proved to be arduous because of their busy schedules. For example, the District Secretary could not be contacted even by prior appointment due to another assignment he had. Our busy time schedule did not permit us to meet the agro-processors and the potential investors to examine their information needs and the media personnel to discuss the dissemination of market information.

All the information required from the agencies was available except from the management office of the DDEC. Income and expenditure figures of the DDEC, despite their importance to evaluate the performance of the market, were inaccessible. Also many traders at DDEC were reluctant to provide information, especially on problems of the market, for fear of reprisal from the market management.

Another factor to be noted is that the study coincided with the off-season for vegetable production in the Matale district. This had a direct bearing on market arrivals and pricing. Also the floating exchange rate introduced by the government with effect from 22 January, 2001 impacted the prices of imported commodities such as potatoes and big onions.

1.6. Organization of the Report

The report consists of eight chapters. The first chapter provides the background for the study, objectives of the study, research methods and limitations of the study. An overview of the Matale district is presented in chapter two. Organization and operation of the DDEC are described in chapter three and four. Chapter five deals with review of market information systems operating in the study locations and the country. Chapter six is preoccupied with the results of the Market Information Needs Assessment Survey (MINA). Establishment of Marketing Centers in the Matale district is discussed in chapter seven. Chapter eight explains the procedures to establish a market information system at the Dedicated Economic Center at Dambulla.

Chapter Two

An Overview of the Matale District

2.1 Background

The Matale district is the most northern of the three districts, which constitute the Central Province. Although Matale town is the administrative city, Dambulla is developing fast as a commercial centre in the district. The total land area of Matale district is about 199,500 hectares. About 103,335 families comprise an estimated population of 465,000. Most of the families live in rural areas and derive their mainstay from agriculture. The terrain of the south of the district is rugged and hilly or mountainous with altitude upto 1,220 meters and the average rainfall is over 2,000 mm. Proceeding north from Matale town, the terrain becomes flatter and the rainfall falls off rapidly to around 1,500 mm at Naula town. Further north towards Dambulla, the rainfall is further reduced and more erratic.

2.2 Agriculture

A variety of crops are grown in the district. The Matale district is well known for production of export agricultural crops, which include spices and beverage crops. Table 2.1 illustrates that the Matale district is the largest producer of cardamom, pepper, cocoa, tobacco and big onion in the country. It also produces a substantial amount of vegetables and is among the top 5 of 25 districts, in the production of many of the popular vegetables as shown in table 2.1. Many farmers interviewed reported that they could grow all the vegetables except for carrot, leeks and potato. It was also observed that vegetables are available throughout the year because of three distinct cultivation periods. For the *maha* season, the farmers in Naula area cultivate vegetables in October to be harvested from November to January, while the farmers in Dambulla and Sigiriya areas follow suit in January and harvest in March and April. For the *yala* season, the planting is performed in May and harvesting season is in July and August. Big onion is the dominant crop in the *yala* season in the areas of Dambulla, Sigiriya, Galewela and Dewahuwa.

Many farmers in Devahuwa and Sigiriya areas who cultivate paddy in the *maha* season and vegetables in the *yala* season have quite big farms; 1-2 acres. Those who cultivate vegetables in both seasons have small plots with less than one acre, as is evident in Naula and Yatawatta areas. Regardless the farm size, almost all the farmers adopt multiple cropping system and a few resort to mix cropping. The farmers at Pilihudugolla planted green chilles in paddy fields and winged beans on the bund of paddy fields. Some areas are specialized for certain vegetables: Walawela for tomato; Yatawatta for snake gourd and bitter gourd; Naula for beans; Palutawa for cabbage and knolkhol; Kalundaewa for sweet potatoes and long beans and Galewela for pumpkin and sweet potatoes. Major crops grown in the Agricultural Instructor's (AI) divisions are given in table 2.2. It includes the first and second highest extent grown with vegetable varieties in the district, AI division wise. For example, Dambulla AI division has four vegetable varieties in the *maha* season which registered the largest or second largest in extent under the crop. Details of calculation are given in Annex 1.

Table – 2.1
Production of Selected Crops in the Matale District, 1995 - 1999

Crop	Unit	1995	1996	1997	1998	1999	5 Year Average	% Contribution to National Production	District Rank
Cereals									
Paddy	000' Mt.	62	58	54	75	66	63	2.49	15
Maize	Mt.	1,275	970	905	1,097	872	1,023	3.23	6
Other Field Crops									
B'onion	Mt.	9,043	9,478	15,317	8,803	24,247	13,377	42.23	1
Red Pumpkin	Mt.	5,477	6,555	6,163	6,130	5,733	6,012	10.14	5
Tomato	Mt.	5,943	6,406	5,457	6,225	4,640	5,734	15.68	2
Ladies Finger	Mt.	2,277	2,355	2,301	2,355	2,416	2,341	6.14	4
Beans	Mt.	4,969	5,622	4,391	4,823	4,393	4,840	16.47	3
Brinjal	Mt.	3,903	4,678	4,157	4,218	4,513	4,294	6.26	6
Snake gourd	Mt.	2,086	2,227	2,109	2,255	2,450	2,225	11.66	2
Bitter gourd	Mt.	1,738	1,909	1,523	2,128	2,013	1,862	9.03	2
Oil Seeds									
Gingelly	Mt.	317	247	257	247	235	261	5.12	5
Ground Nut	Mt.	67	71	68	91	81	76	1.30	14
Spices									
Chilli	Mt.	5,808	6,429	5,367	4,787	5,399	5,558	7.85	2
Mustard	Mt.	157	146	38	35	25	80	21.40	2
Cardamom	Mt.	570	575	515	517	481	532	45.84	1
Cloves	Mt.	385	447	484	446	489	450	10.65	3
Pepper	Mt.	5,044	5,638	4,818	4,213	3,872	4,717	27.49	1
Beverage Crops									
Coffee	Mt.	1,294	1,319	1,311	1,133	1,431	1,298	11.66	4
Cocoa	Mt.	1,932	1,398	2,008	2,167	2,074	1,915	53.65	1
Tobacco	Mt.	1,527	1,784	2,227	1,909	1,476	1,785	18.93	1
Fruits									
Mango	000' Nos.	29,886	29,578	19,731	29,167	21,038	27,880	5.90	5
Orange	000' Nos.	1,485	1,437	1,220	1,302	967	1,282	5.01	5
Plantain	000' Bunc.	1,211	1,151	1,118	1,187	1,274	1,188	3.46	11

Source: Dept. of Census and Statistics

Family labour is extensively used with female labour widely deployed for planting, weeding, and harvesting, accounting for over 90% in these activities in many instances. Female participation in decision making in farming activities such as crop selection and marketing is evident among the young farmers. However, decisions on crop choices, planting time, harvesting time and harvesting techniques depend on the experience of the farmers who have received no training on these subjects. All the farmers apply chemical fertilizers and agro-chemicals, but no one uses carbonic fertilizer. The farmers did not report problems on the availability of and accessibility to fertilizer and agro-chemicals. Nevertheless, many complained about difficulties in the selection of agro-chemicals and pricing. Farmers in the study location entirely depend on the traders in the selection of agro-chemicals. Prices vary significantly and the traders put new price tags on top of the old ones. The traders often give 20% discount on spot payments. This means that a high margin has been added to the displayed prices. The farmers often obtain fertilizer and agro-chemicals from the nearby shops and seeds from Dambulla.

Transactions are mostly on spot cash. Obtaining credit for vegetable farming is not prominent in all the study villages except at Ibbankatuwa where many farmers obtain fertilizer, agro-chemicals and consumer items from the village shop and sell their products to that shop.

2.3 Marketing

The DDEC effected changes in the marketing structure for vegetables. Before that, resident collectors dominated the vegetable trade at farm level. The farmers bring vegetables to the collectors or collectors collect the vegetables. In many cases, collectors issue a receipt to their purchases and the payment is made after the sale of the produce to the visiting traders from consuming areas such as Kegalle, Ratnapura, Horana and Avissawela. The remaining stocks are sent to Dambulla or/and Colombo at night. The farmers who are close to Dambulla bring vegetables to the Dambulla market for sale on a commission basis. Unlike in Colombo, the farmers are present till the products are disposed of. With the establishment of the DDEC, the collector dominated trading system is deteriorating rapidly for two reasons. First, the farmers bringing vegetables to the DDEC has gone up following the increase in the number of traders at the DDEC. Some of the new traders are from the production areas and the farmers have a preference for them. Second, the visiting traders patronize the DDEC bypassing resident collectors due to the availability of variety of items and the market forces to determine the prices. When purchases are made from collectors, they fix the price. A detailed description of the operation of the DDEC is presented in the next chapter. At Galewela, there were six vegetable collecting centers, but one has been closed and others do retailing after the establishment of the DDEC. At the place called 40th mile post, the number of collectors has reduced to one out of four. However, the farmers in the interior areas such as Walawela still sell vegetables to the resident collectors at a lower price.

Table 2.2
Major Crops Grown in the Matale District by Agricultural Instructor's Divisions

AI Range	Crops*	
	<i>Maha</i>	<i>Yala</i>
Dambulla	Bitter Gourd, Luffa, Sweet potato, Tomato	Big Onion, Elabatu, Green chillies, Kurakkan, Long beans, Red onion
Dambuluoya	Brinjal, Green chillies, Ladies finger, Manioc	Maize, Manioc, Sweet potato, Big onion
Elkaduwa	---	Ladies finger
Galewela	Sweet potato	Cucumber, Pumpkin, Ladies finger
Hattota Amuna	Kurakkan, Maize	---
Hettipola	Maize	Snake gourd, Green gram, Maize
Inamaluwa	Beetroot, Capsicum, Cucumber, Dried chillies, Winged beans	Beetroot, Brinjal, Capsicum, Winged beans, Elabatu, Manioc, Sweet potato
Kimbissa	Beetroot, Long beans	Beetroot
Kongahawela	Dried chillies, Snake gourd, Pumpkin	Green chillies, Dried Chillies, Red onion, Snake gourd,
Mahawela	---	Bushita, Raddish
Makulgaswewa	Manioc	---
Naula	Beans	---
Pallepola	Brinjal, Snake gourd	---
Thalakiriyagama	Bitter gourd, Cucumber, Ladies finger, Long beans, Luffa, Pumpkin	Bitter gourd, Dried chillies, Long beans
Tenna	---	Cabbage, Luffa, Kurakkan, Winged beans
Vahakotte	Beans	----
Walawela	---	Beans, Tomato, Raddish
Yatawaththa	---	Beans, Bitter gourd, Bushita, Cabbage, Cucumber, Knol-khol, Luffa, Pumpkin, Tomato

Source: District Agriculture Office, Matale

* Based on the average extent (1998-2000), AI divisions were ranked from highest to the lowest crop wise. Crops ranking to the top two are included.

Chapter Three

Organization of Dambulla Dedicated Economic Center

3.1 Introduction

The Dambulla Dedicated Economic Center (DDEC) was commissioned in March 1999 by shifting the old vegetable wholesale market located in the heart of the Dambulla town to an area on Matale - Dambulla main road, a little away from the town. One of the proposals in the 1998 budget speech was to set up regional marketing centers to facilitate trading of agricultural produces. The DDEC is the first one, established under this programme with an investment of Rs.115 million. It is also the first market owned and operated by the central government under the Ministry of Industries Services and now under the Ministry of Trade Marketing Development, Co-operatives and Services. A board consisting of government officials and representatives of the traders association manage the market.

Since the DDEC is the main agricultural market in the Matale district, market information has to be collected from this market, thus necessitating an investigation into the organization and operation of the DDEC. Under the organizational aspects, type of market participants with their roles and the supply and demand flows are examined. Marketing activities such as pricing, transportation, packing and grading are discussed in the section of market operation.

3.2 Market Organization

There had been a few small-wholesale shops operating at Dambulla during the 1970s. At the time of construction of the DDEC, about 70 vegetable wholesale shops functioned around the main junction of the Dambulla town. Today, there are about 150 traders at the DDEC with 143 stalls for trading (one stall is used for the Bank of Ceylon). Several factors contributed to the emergence of this market as the second largest vegetable wholesale market in the country. First, Dambulla is geographically located with better road access to many vegetable producing and consuming areas in the country. Second, Dambulla and the surrounding Matale district are the major producing areas of big onion, and upcountry and low country vegetables ensuring a ready availability of fresh vegetables with a regular supply. Third, with the increasing intensity of the war in the North-East, the prominent vegetable wholesale markets such as Kilinochchi and Vavuniya have collapsed resulting in a dramatic increase in the operational activities of this market. Fourth, availability of dried items such as grains, dried fish and other stuff like potatoes, onions, fruits, arecanut, betel, canned fish, etc have expanded the market functions. Fifth, the market functions throughout the night and the wholesalers buy their requirements in the night and retail them in the morning. The retailers and *pola* traders too prefer night purchase as they could carry out business activities without any interruption during the daytime. And the farmers too are benefited. They attend to their field activities in the morning and do the harvesting in the evening for sale at night. Hence, they can save the time and supply fresh vegetables to the market.

Nevertheless, inadequate space in the market area, narrowness of the road and lack of other facilities have resulted in traffic congestion and other problems, impacting the wholesale business. It is the common perception, that more space for vehicle parking, vehicle movement, loading and unloading of commodities and storing space are imperative for the development of any agricultural market. However, the absence of these facilities at the old Dambulla vegetable wholesale market, became the main hindrance for the furtherance of its development. Having identified these problems, the government established the new market in an area where adequate space existed.

In the new vegetable wholesale market complex, 144 stalls were constructed. As shown in chart 3.1 these shops are located in six blocks namely, A,B,C,D,E and F. The A and B blocks are sited face to face in the same row, just as C and D and E and F. There is enough space for vehicle movement and parking between such blocks. Moreover, other logistics such as a parking lot, enough space for vehicle movement, stalls with more space etc are provided in this new market complex. Hence, the DDEC is logistically the best well equipped vegetable wholesale market in Sri Lanka. Nevertheless, it has some drawbacks that will be taken up for discussion later.

With the DDEC, the structure of the market has undergone further changes and improvements. First, the number of shops increased from 70 to 143 with a resultant upsurge in the number of traders from 70 to 150. Second, the traffic and other related problems have been over come following the shift of the entire vegetable wholesale business to the DDEC. Third, the new market complex attracted more and more suppliers and buyers, increasing the business pursuits. Fourth, the new facilities boosted the supply of more fresh vegetables and reduced product damage, improving the quality of available products. Fifth, the traders enjoyed a large market share at the old market. However, with the increase of the traders at the DDEC, the market share of these traders has declined. In the previous instance it was evenly shared. Sixth, the strict regulations enforced have paved the way for the market to be maintained cleaner relatively.

3.2.1 Types of Participants

On the supply side, the major market participants are the DDEC traders (Commission traders), the farmers and the collectors as shown in chart 3.2 . When the demand side is considered, different types of buyers purchase products from the market. The transporters and the labourers involved in loading or unloading of commodities are the other market participants providing supporting services.

3.2.1.1 Commission Traders

As already noted, 144 shops are operating at the market. One shop has been provided for the Bank of Ceylon and another for a farmers association. Rest of the stalls are operated by private businessmen. Traders have rented some of these shops. Some stalls have two traders. The additionally operating trader pays a rent to the owner-trader.

Chart 3.1
Layout of the Dambulla Dedicated Economic Center

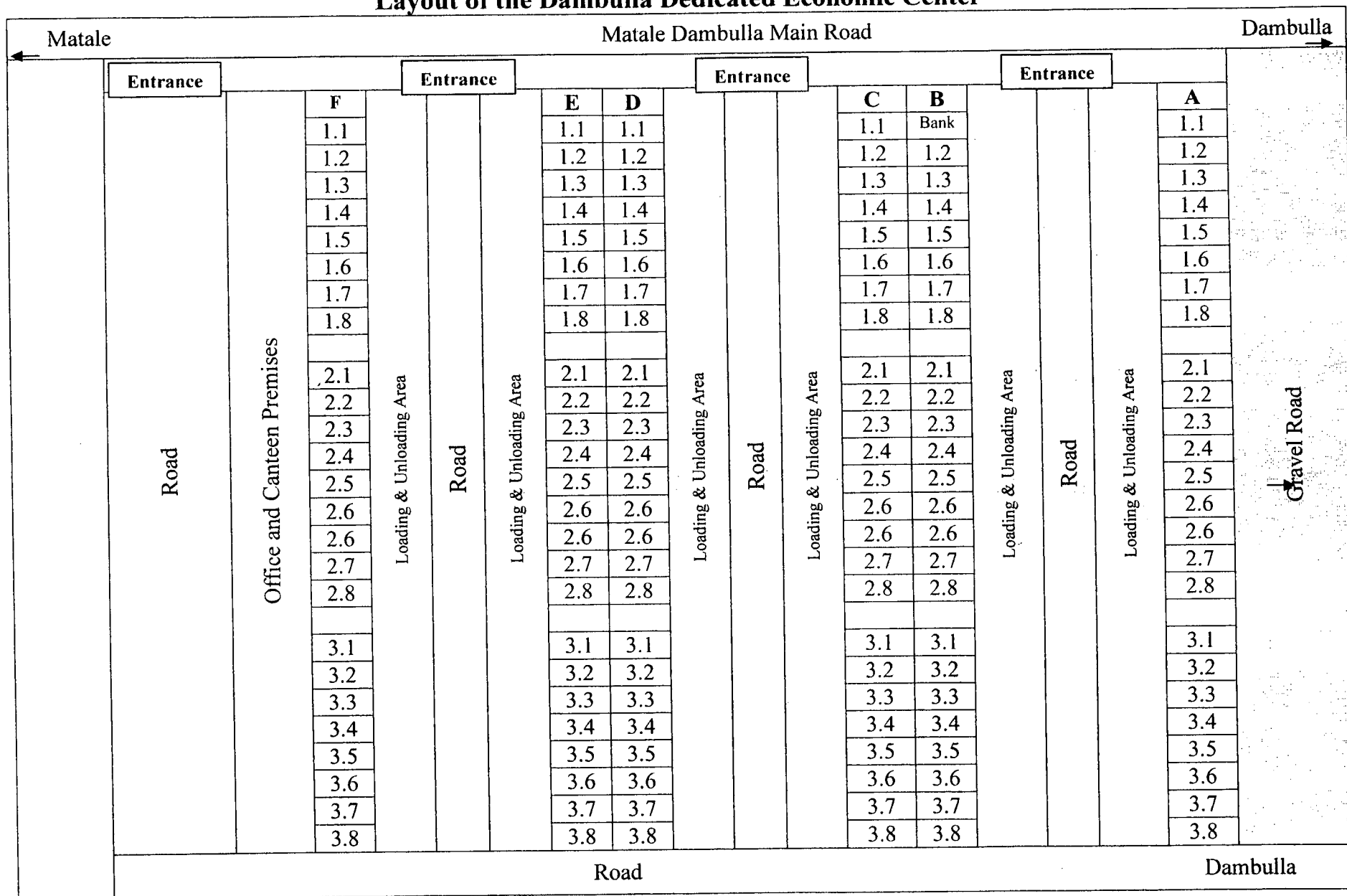
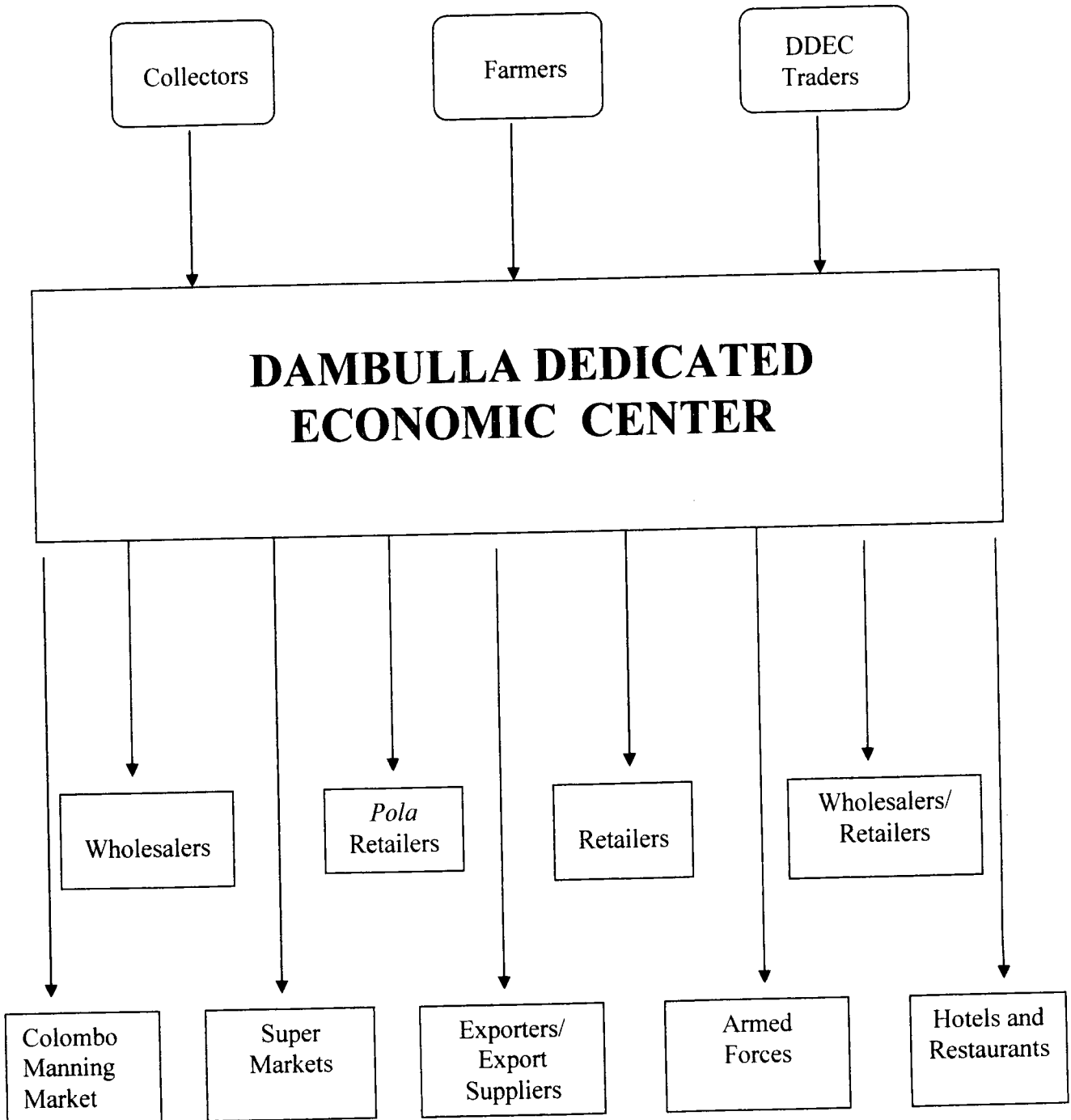


Chart 3.2

Inflow and Outflow of the Dambulla Dedicated Economic Center



It was observed that traders have specialized in trading depending on different commodities. Table 3.1 shows the break down of such specialization by commodity or commodity groups. Of the total, over half of the traders are involved in the trading of low country vegetables. Most of them are from, production areas of the Matale district and a part of the Anuradhapura district where low country vegetables are grown. It was found that the traders specializing in up country vegetables have increased considerably after the establishment of the DDEC. Some new traders, especially those who did not have links with the farmers, purchased vegetables from producing areas such as Nuwara-Eliya and Hanguranketha and disposed them at the DDEC, while others started to trade imported food items. Farmers in the Matale district complained that the prices of their produces fetched low due to this situation.

For lack of time, we were unable to group traders by trade volume: large, medium and small. Focus group interviews reveal that many traders belong to the medium level category, who sell one or two lorry loads, containing 5,000 - 6,000 kg of vegetables. About 5% of the traders could be considered as large-scale businessmen who sell over 3 lorry loads. Most of them have strong production links through provision of agricultural inputs such as fertilizer and agro-chemical to the farmers from their own shops and maintaining good reputation in business.

Table 3.1 Commodity Specialization in DDEC

Type of Commodities	Number of Traders
Low country vegetables	76
Both up and low country vegetables	30
Upcountry vegetables	15
Potato, onion and related imported items	13
Grains	01
Dried Fish	02
Arecanut /Beetle	02
Bags and Coconut	02
Fruits	02

Source: HARTI Field Survey

Most of the commission traders have paid a key money of Rs.100,000 for their shops. The monthly rent is Rs.5,675. There are two *nattamies* in most of the shops, on a daily payment of Rs.150 with meals or Rs.200 without meals. A cashier in each shop is paid Rs.300/day with meals. The DDEC traders pay Rs.600 - 1,000 for electricity and Rs. 1,500 - 5,000 for the telephone plus a BTT to the Provincial Council. Furthermore, they pay Rs.100/month to the Traders Association at the DDEC. They also spend Rs.300 - 1,000 per month for charity.

There is an association of commission traders, which appears to be the supreme governing body within the market. It has imposed rules and regulations to promote and facilitate market operations. The membership is compulsory for the traders.

3.2.1.2 Farmers

One of the unique features of the DDEC is the direct participation of the farmers in selling of farm products. Farmers from Matala and the surrounding districts bring vegetables directly to the market. After the establishment of the new market, the number of such farmers has gone up because of the high price they can get compared to that of collectors. The farmers are the largest group of suppliers to the market, but their quantity when compared with those of the collectors would be low or high depending on the harvesting season. At the time of the survey, the farmers' stocks represented 36% of the weekly arrivals against 46% of the collectors' as shown in table 3.2. This was because of the off-season.

Table – 3.2
Market Inflow by Type of Suppliers
20 – 26 January 2001

Type of Suppliers	Quantity	
	Kg	% Total
Farmers	952,316	36.44
Collectors	1,200,607	45.94
DDEC Traders	460,510	17.62
Total	2,613,433	100

Source : HARTI Field Survey

It was observed that the farmers have good links with the commission traders, mainly because the latter come from the production areas and the farmers always supply products to the area-based trader. Nevertheless, many farmers are not indebted to the traders and almost all the farmers interviewed reported that they could change the trader at their will. It was observed that the traders provide credit either in cash or kind such as fertilizer, chemical or seed to the few farmers who patronize them regularly. But, they also receive the same price paid to others. In fact many farmers have realized that borrowing money or other inputs from a trader leads to a dependency syndrome.

3.2.1.3 Collectors

The other major group of suppliers is the collectors; the DDEC traders and the resident collectors in the production area. The DDEC traders, especially those who do not have a regular supply from the farmers, purchase vegetables from distant areas such as Hanguranketha. Most of them are new comers. It was found that 18% of the weekly stocks came from the DDEC traders (Table 3.2). Out of this quantity, the imported items formed a significant share. The resident collectors purchase vegetables from the farmers in the area for sale at the DDEC. They often come with a lorry load. Most of the up country vegetables and low country vegetables produced in distant areas such as Mihintale, Marassana and Ragala come through this channel. According to the quantity monitoring survey, the resident collectors supplied 45% of the weekly stocks (Table 3.2) – the biggest supplies during the survey period.

3.2.1.4 Buyers

As shown in table 3.3, among several groups involved in purchasing, the major categories are the wholesalers, the retailers and wholesalers, cum retailers registering 98% of the total weekly purchases during the survey period. The retailers have contributed the largest share of the total purchase at the DDEC, their weekly purchase amounting to nearly 1.2 million metric tons or 47% of the total weekly purchase. The estimated amount per day was 171,000 kg. Of the retailers, the *pola* traders had the biggest share – 75% of the retailers' purchases or 35% of the total purchases. A group of *pola* retailers usually hire a truck on their purchasing trip to the DDEC. They do business in the day time and have the advantage of making their purchases at night. They visit the DDEC on the preceding night of the *pola* day and hence market is busy on Tuesdays, Fridays and Saturdays.

Table – 3.3
Market Outflow by Type of Buyers, 20-26 January 2001

Type of Buyers	Quantity	
	Kg	% Total
Wholesalers Only	498,200	19.50
Retailers	1,199,187	46.93
<i>Pola</i> Retailers	893,955	35.00
Retailers – Road side	57,110	2.20
Retailers – Other	248,122	9.70
Wholesalers cum Retailers	798,020	31.23
Wholesalers and Retailers – Other	434,028	16.98
Wholesalers and <i>Pola</i> Retailers	324,892	12.71
Wholesalers and Armed Forces Suppliers	22,900	0.90
Wholesalers and Retailers – Road side	16,200	0.63
Armed Forces	47,500	1.86
Hotel/Restaurant/Super Market	8,630	0.34
Exporters/Exporter Suppliers	3,100	0.12
Commission Agents	400	0.02
Consumers	436	0.02
Total	2,555,473	100

Source : HARTI Field Survey

The second major group of the buyers is the wholesalers cum retailers. They do wholesaling to retailers who purchase in small quantities and in turn retail them to consumers as well. They clean vegetables before sale. Such traders purchase a variety of items such as potatoes, chillies, dried fish and sugar in addition to vegetables to meet with their customers' need. Most of these traders reported that the availability of different types of goods including imported items attract them to this market. Total purchase made by this group was 798 mt. during the week concerned, and it accounted for 31.2% of the total weekly purchases. Contribution of the *pola* wholesalers cum *pola* retailers and town wholesalers cum retailers is prominent.

The wholesalers form the next important group who mainly supply vegetables to the retailers in the town or on roadsides. Some of them deliver the goods to the retail points and they have regular buyers. These traders look for quality because the time period involved in the sale is longer than in the case of *pola* traders. The keeping quality is therefore important for them. They usually arrive once in three days, and buy one lorry load. Their market share was nearly 18%.

Other groups of buyers are processors, exporters, armed forces, and hotels and restaurants. The share of this group is relatively negligible. The armed forces purchase nearly 50,000 kg per week. They wait for the last moment for the prices to decline to make their purchases.

Table 3.4 clearly shows that more than 50% of the buyers reached the DDEC within 2 - 4 hours. Many buyers reported that the better road network reduced the travel time significantly.

3.2.2 Conditions of Entry and Exit in the Market

No barriers existed for anyone to take to the vegetable wholesale business at the old market. However, the situation is rather different at the DDEC, where the prospective traders who want to do wholesaling at Dambulla, should have a shop in the market, and must become a member of the traders association. Similarly, it is not allowed for the DDEC traders to undertake wholesale business within the Divisional Secretariat area. Hence, free entry into this market has some constraints. Even if the stall is somehow obtained, there are other debacles such as contacting the suppliers, and provision of transport and facilities to the suppliers. It is interesting to note that working capital is not required for commission trading. As pointed out by some collectors and farmers, commission trading can be done with no investment but, an earning can be made, at the end of the day. Under these circumstances, free exit from the market is possible if there is a lack of commitments in business.

Table – 3.4
Buyer's Traveling Time to the Dambulla Market

Traveling Time Hours #	Departure Vehicle	
	No.	%
0.5 – 01	50	4.4
01 – 02	240	21.2
02 – 03	284	25.1
03 – 04	296	26.1
04 – 05	128	11.3
05 – 06	64	5.6
>06	71	6.3
Total	1133	100.0

Time difference between departure time from origin and arrival time to the Dambulla market.

Source: HARTI Field Survey

3.2.3 Supply Sources and Areas

According to the market arrival survey conducted at the DDEC during the period from 20th to 27th January, a total quantity of 2.6 million kg of vegetables and other items reached the market. Of this, the collectors supplied nearly 46% and the farmers contributed 36.4% and the balance of 17.6%, from the DDEC traders. However, this pattern may change during the harvesting season in the Matale district, when the farmers' share would probably top the list.

Table 3.5 and chart 3.3 show the districts, which supply products to the DDEC and the supply areas in each district are given in Annex 2. Major commodities supplied to the market by districts during the survey period are given in Annex 3. Of the 25 districts, 15 districts supplied goods to the market during the survey period with Nuwara-Eliya as the largest supplier. The Kegalle district supplied the least amount. The Matale district came to the third place. It further reveals that six districts namely, Nuwara-Eliya, Anuradapura, Matale, Colombo, Kandy and Kurunegala provided 88% of the total weekly supply. Moreover, the first three districts accounted for 61% of the total weekly supply. Up country vegetables were supplied from the Nuwara - Eliya and Kandy districts, while Auradhapura district supplied low country vegetables. Matale district supplied both types.

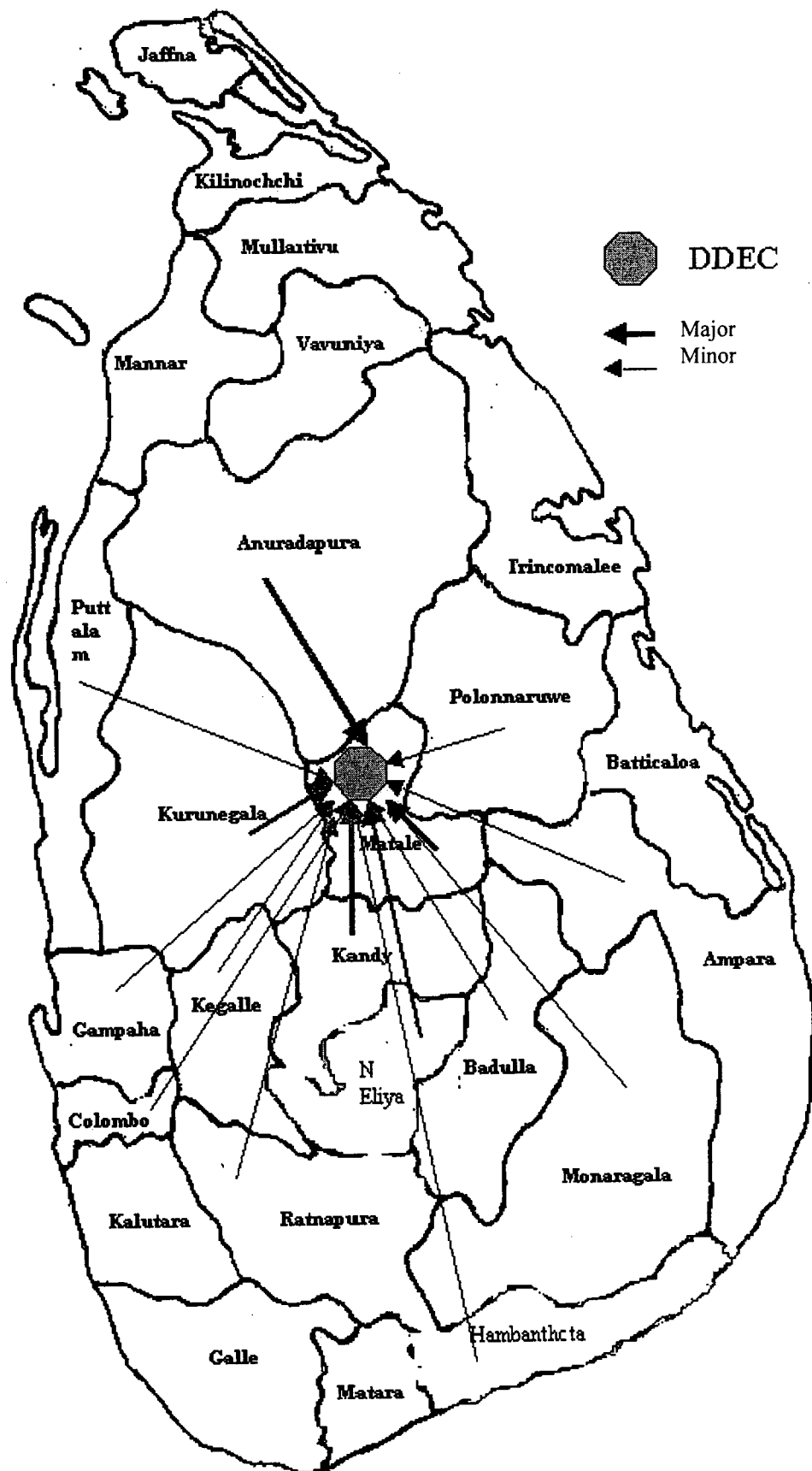
Table – 3.5
Main Supply Districts to the Dedicated Economic Center

District	Quantity Kg	% to the Total Quantity
Nuwara - Eliya	591,355	22.63
Anuradhapura	588,560	22.52
Matale	421,234	16.12
Colombo	310,460	11.88
Kandy	212,750	8.14
Kurunegala	170,350	6.52
Badulla	84,950	3.25
Puttalam	84,000	3.21
Ampara	57,350	2.19
Moneragala	50,600	1.94
Polonnaruwa	15,445	0.59
Rathnapura	7,557	0.29
Hambantota	6,750	0.26
Gampaha	6,715	0.26
Kegalle	5,357	0.20
Total	2,613,433	100

Source: HARTI Field Survey

Imported items and dried goods arrived from Colombo. As regards Matale district, the supply was 421 mt. or 16% of the total supply. Of this, the Dambulla area contributed the major part registering nearly 56% followed by Naula (16.6%), Galewale (18.8%) and Sigiriya (only 6.7%). However, this position would change during the peak vegetable season.

Chart 3.3: Illustrative Locations Supplying Produces to the Dambulla Dedicated Economic Center (DDEC), 20-26 Jan. 2001



Time of stock arrival during the period 2.00 p.m - 12.00 midnight is presented in table 3.6 which reveals that two thirds of the stocks reached the market between 3.00 p.m. to 7.00 p.m. Moreover, 40% of the stocks arrived at the market within two hours, 4.00 - 6.00 p.m. Up country vegetables reached the market late afternoon, around 6.00 p.m. because collectors purchase vegetables in the morning.

3.2.4 Demand Sources and Areas

As already noted, the retailers formed the major part of the purchase followed by wholesalers cum retailers (31.2%) and wholesalers (19.5%) during the period under review. The total quantity of purchase was nearly 2,555,473 kgs. Unlike the market inflow, the outflow of the commodities was more or less evenly distributed. Table 3.7 and Chart 3.4 depict the districts to which the products move. Demand areas in each district are presented in Annex 4. The districts such as Kurunegala, Kandy and Anuradhapura contributed to significant share in the outflow (36%) of the total purchases. The figure was 8% - 9% for the districts of Trincomalee, Kegalle and Polonnaruwa, followed by Matale, and Gampaha and Colombo contributing to 7% - 6%.

3.3 Competition

There were only 50 - 60 wholesale shops in the old Dambulla vegetable wholesale market, which have increased up to about 150 in the new market complex, resulting in a decline in the market share for those at the Dambulla old market. With the attempt on the part of the new comers to establish themselves in the market operations, a competition has ensued to attract more suppliers.

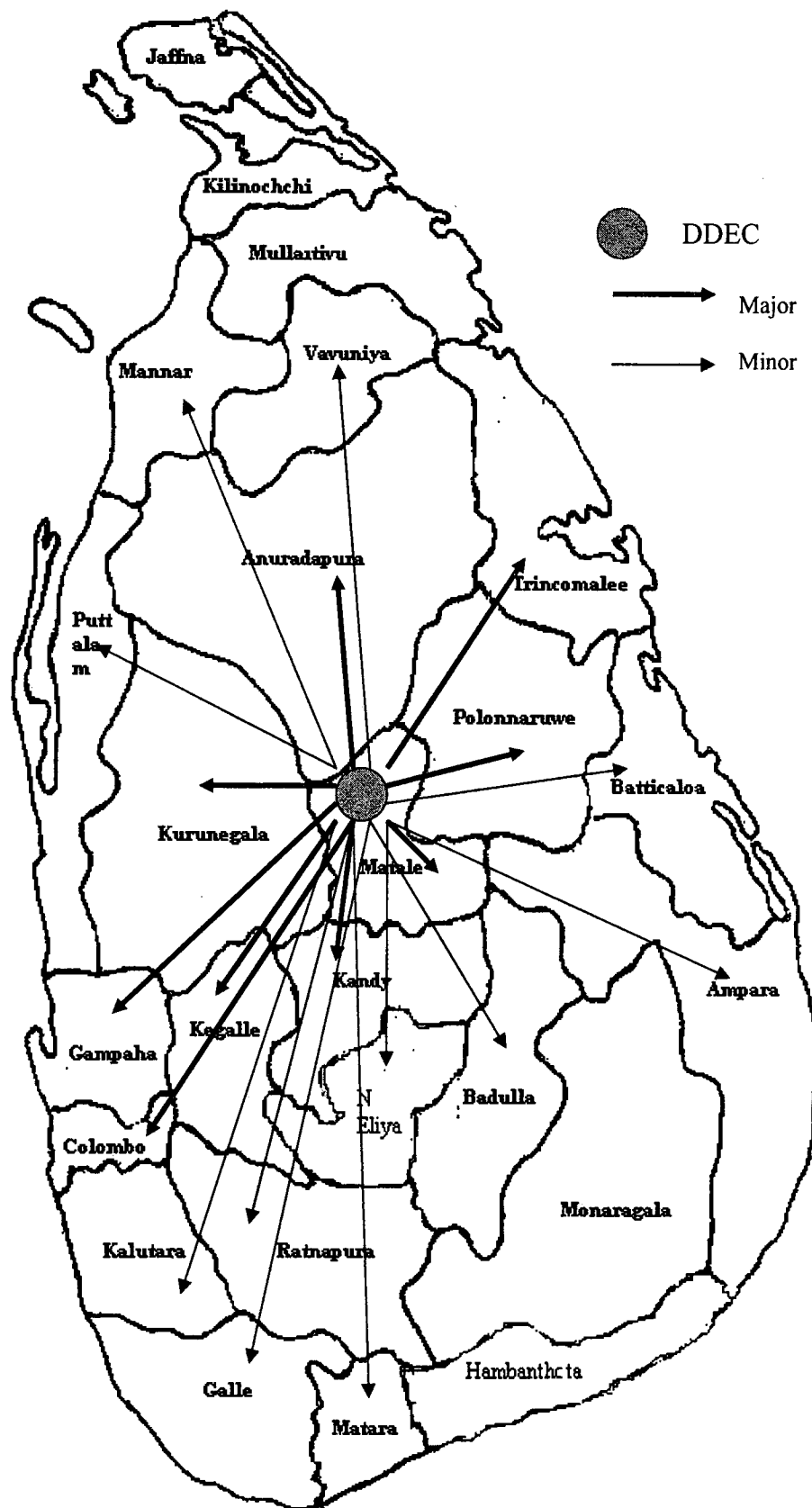
Table – 3.6
Time of Arrival of Vehicles and Quantity of Produce, 20-26 January 2001

Arrival Time	Vehicle		Quantity	
	No	%	Kg	%
Before 2.00 p.m *	54	2.7	106,415	4.1
2.00 – 3.00	191	9.6	104,968	4.0
3.00 – 4.00	297	14.9	208,052	8.0
4.00 – 5.00	399	20.1	415,651	15.9
5.00 – 6.00	458	23.0	673,022	25.8
6.00 – 6.30	191	9.6	294,545	11.3
6.30 – 7.00	170	8.6	302,970	11.6
7.00 – 7.30	104	5.2	218,015	8.3
7.30 – 8.00	67	3.4	143,350	5.5
8.00 – 9.00	48	2.4	116,475	4.5
9.00 – 10.00	6	0.3	15,970	0.6
10.00 – 11.00	1	0.1	7,500	0.3
11.00 – 12.00	1	0.1	6,500	0.2
Total	1987	100.0	2,613,433	100.0

* No of vehicles retained in the market at the time of commencing the survey

Source: HARTI Field Survey

Chart 3.4 : Demand Districts to the Dambulla Dedicated Economic Center (DDEC). 20-26. Jan. 2001



Hence, some of the traders maintain a close relationship with farmers and providing them with credit facilities, fertilizers and chemicals in their respective areas. Some other traders send lorries to producing areas at the request of the farmers. Most of the traders opined they have regular suppliers such as the farmers and the collectors. The DDEC traders receive most of their supplies from their native areas, while the new traders get down vegetables from the producing areas. Some traders limit their commission to Re.1.00/kg irrespective of higher selling prices.

Table – 3.7
Demand Districts to the Dedicated Economic Center

District	Quantity Kg	% to the Total Quantity
Kurunegala	343,762	13.45
Kandy	315,072	12.33
Anuradhapura	262,254	10.26
Trincomalee	229,750	8.99
Kegalle	225,700	8.83
Polonnaruwa	214,652	8.40
Matale	170,390	6.67
Gampaha	164,750	6.45
Colombo	150,103	5.87
Batticalo	89,300	3.49
Kalutara	82,000	3.21
Puttalam	78,400	3.07
Vavuniya	45,500	1.78
Ampara	44,300	1.73
Galle	37,200	1.46
Matara	33,040	1.29
Badulla	21,000	0.82
Nuwara - Eliya	18,800	0.74
Rathnapura	17,500	0.68
Mannar	12,000	0.47
Total	2,555,473	100

Source: HARTI Field Survey

Chapter Four

Operation of Dambulla Dedicated Economic Center

Marketing operation includes three faceted marketing activities, exchange functions, distribution functions and facilitative functions. These activities related to the DDEC are explained in this chapter.

4.1 Exchange Functions

This includes buying and selling activities, with the participation of three sets of stakeholders: the suppliers, the buyers and the DDEC traders. This is somewhat strange because exchange function involves only two parties. Here the suppliers are present in addition to the commission traders. Usual practice is that the commission traders sell the produce on behalf of the suppliers. At the DDEC, the suppliers and the buyers do the transaction through a commission trader, who charges a commission for his service. His commission is cents 50/kg, if the vegetables are sold between cents 50/kg to Rs.9.50/kg, Re.1.00/kg between Rs.10.00/kg to Rs.29.50/kg and Rs.2.00/kg if the sale is above Rs.29.50/kg. In other instances it cents 25 per corn pod, cents 25 per coconut sold below Rs.5.00/nut and cents 50 if it is above that price. The commission is cents 25 for a bundle of leafy vegetables, and Rs.5.00 for 100 betel leaves or 100 arecanuts.

During the transaction, the resident wholesalers offer the prices depending on the market demand, supply and quality. If the supplier and the buyer agree, the deal is put through. Generally, bargaining follows according to the quality, supply and demand, then the price is fixed. The deal fails if there is no agreement on the price.

The buyers could check the quality of stocks at the time the old market functioned. However, this practice has a difficulty at the DDEC, where many farmers do not allow the buyers to resort to this practice. If a buyer opens a pack for quality checking, he has to pack it again as it was. According to the buyer, the quality of vegetables leaves much to be desired since the farmers contrive to adopt various devices to cheat the buyers. For example, the farmers may put low quality stuff or stones in between the quality produce in a way unobservable. This is a common phenomenon which may become a major hindrance for the further development of the market and the continuance of which may compel the buyers to look for alternative markets. Presently, the buyers experience considerable losses in quantity of vegetables because of such malpractices. The details of the wastage are given in table 4.1. The highest wastage is observed for the Welimada cabbage, which is called *papadam gova* at the market due to its highly perishable nature. Wastage for many vegetables is about 10%, relatively low compared with vegetables passing through the Manning market in Colombo, where it was estimated as 15%-20% for many vegetables.

The spot cash payment is made for the transactions in most cases. But sometimes, vegetables are sold on a credit basis; the credit to be re-paid by the buyer in a very short time period. The credit sales are mostly facilitated by the commission traders, not by the suppliers.

Table 4.1
Wastage of Vegetables per Bag

Items	Buyers from Minuwangoda		Buyers from Midirigiriya	
	Weight of Bag (kg)	Wastage (Kg)	Weight of Bag (kg)	Wastage (Kg)
Beans	50	2	50	2-4
Ladies finger	30-35	4-5	30-35	3-4
Long beans	35-40	3-5	35-40	1-2
Wing beans	20-25	2	20-25	1-2
Cabbage – Welimada	50	8	50	8-10
Cabbage-N'Eliya	50	2-4	35	2-4
Capsicum	50	2-4	50	3-5
Brinjal	50	3-5	50	3-4

Source: Traders' Interviews

4.1.1 Price Formation through Demand and Supply

A number of factors influence the process of price formation at the market; the market arrivals or market supply is the most important. The prices in particular would fluctuate on the basis of change in the market supply of the day concerned, compared with that of the previous day. The second factor is the number of buyers and their purchasing patterns. The buyers usually make their rounds at the market to examine high and low supply items and they make early purchases of scarce items. Another reason is the farmers' behavioral pattern. Some times, the farmers who are in a hurry to get back, sell their produce early at a lower price contributing to a lowering price level at the market.

The buyers' behaviour is also of importance in price formation. A significant portion of traders do not make purchases immediately on arrival. They linger late into the night, expecting a down turn in prices. The buyers stay in the market for hours till prices come down. Their time spent at the market is listed in table 4.2. Nearly 50% of the buyers stay at the market for 5-6 hours.

Table 4.2
Buyer's Time Spent in the Dambulla Market

Time – Hours #	Departure Vehicle	
	No.	%
0.5 - 01	30	2.6
01 - 02	89	7.9
02 - 03	171	15.1
03 - 04	203	17.9
04 - 05	338	29.8
05 - 06	231	20.4
> 06	71	6.3
Total	1133	100.0

Difference between departure time and arrivals

Source: HARTI Field Survey

Unlike at most of the other vegetable wholesale markets in the country, consent of the sellers such as the farmers and the collectors is a must to determine prices. The transaction would not take place if the suppliers reject the selling price offered for their items. Moreover, most of the DDEC traders keep in touch with Colombo wholesale prices in the formation of their prices.

The other factor is quality and market preference of the products. Generally, good quality stocks fetch higher prices. The leftover stocks of the previous day fetch a lower price. The resident traders take the unsold vegetables outside the market, and following day bring them back as fresh stuff.

Furthermore, according to market preference, the prices are conditioned by a variety of factors. The long winged beans and brinjal with stripes are the most preferable which fetch higher prices than other varieties. The vegetables from Nuwara Eliya such as beetroot, cabbage and carrot fetch higher prices than same crops from other areas, due to better quality, colour, shape, higher keeping quality and the taste. MI 2 variety of green chillies is preferred over other varieties. Hence, the price formation at the Dambulla wholesale market is a result of the complex process of the above-mentioned factors.

Moreover, the price changes take place within the day. Usually, an upward trend in prices is observed till 6.00 p.m. and a decline thereafter (Chart 4.1). The buyers purchasing pattern is attributable to this situation. They usually wait till the farmers get tired of bargaining for low prices. The wholesalers often purchase the products early for quality requirements, while the *pola* retailers are the last buyers.

An attempt was made to compare the DDEC prices with the Colombo wholesale prices. It was observed that prices of many of the commodities were lower at Dambulla than those of Colombo (Table 4.3). As seen in the table, the prices of low country vegetables were much lower than those of up country vegetables. Many buyers from areas such as Kegalle, Warakapola, and Nittambuwa come to the DDEC for low country vegetables.

They call them *Wanni Badu* due to low prices. The time series analysis of price data during the last 5 years shows that vegetables prices at the DDEC are lower than those of Colombo and the price decline is sharper during the main harvesting period of Matale district which falls in March and April (Annex 5).

Chart 4.1: Average Wholesale Price at Dambulla Market by Times, 20 - 26 January 2001, Rs/kg.

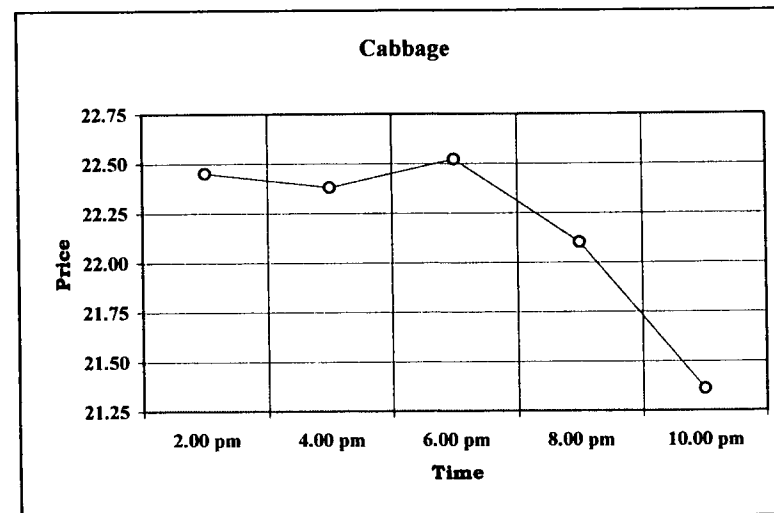
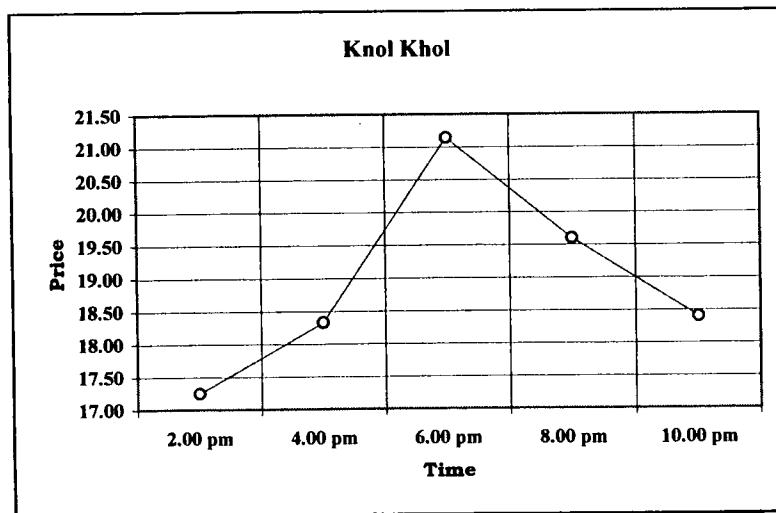
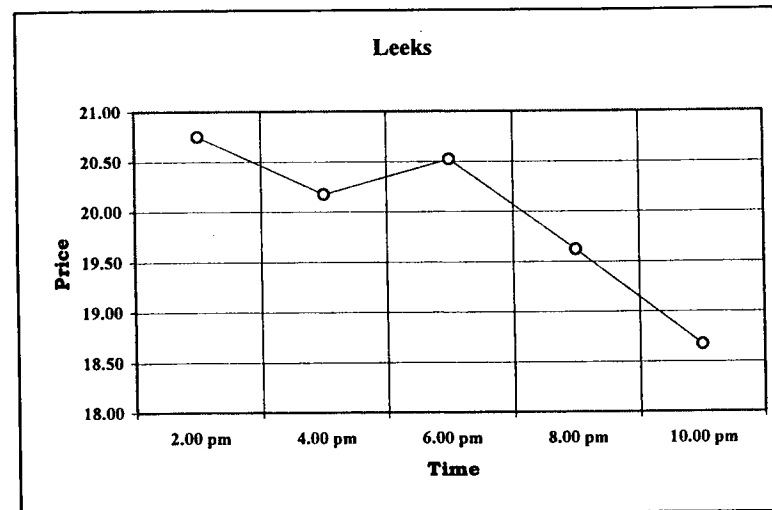
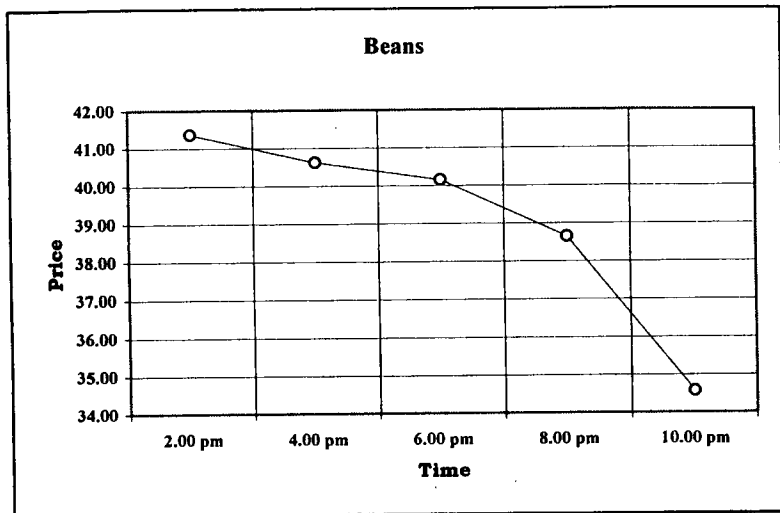


Chart 4.1 : Average Wholesale Price at Dambulla Market by Times, 20 - 26 January 2001 ,Rs/kg (Contd.)

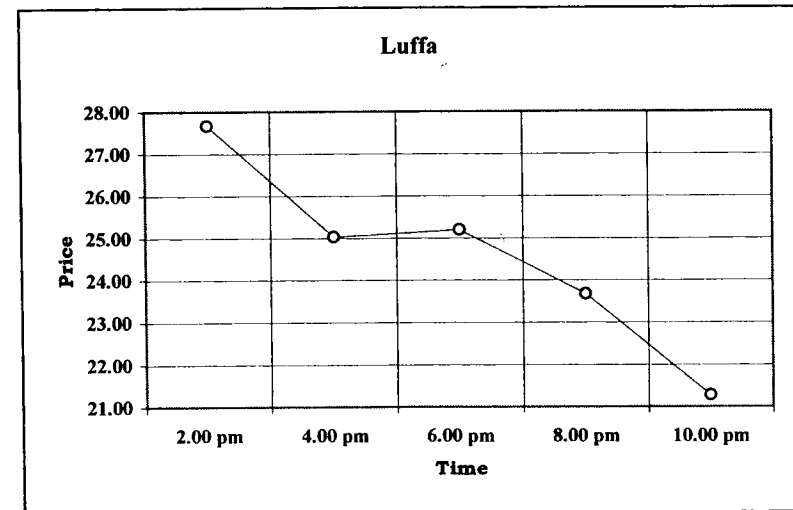
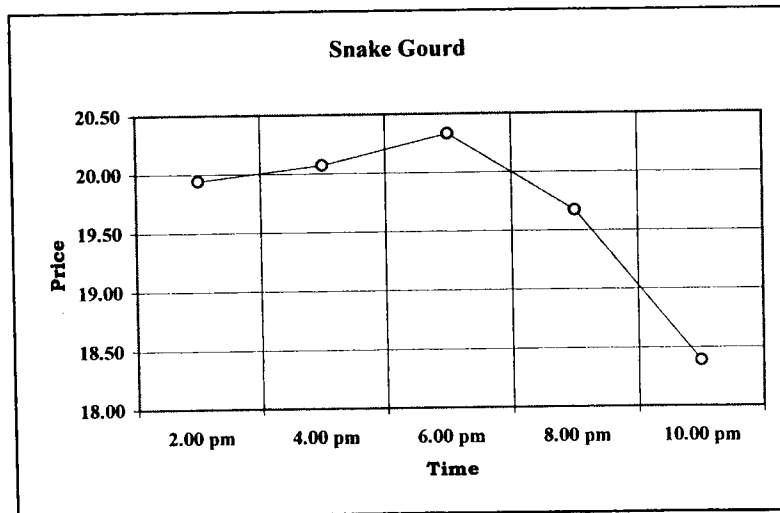
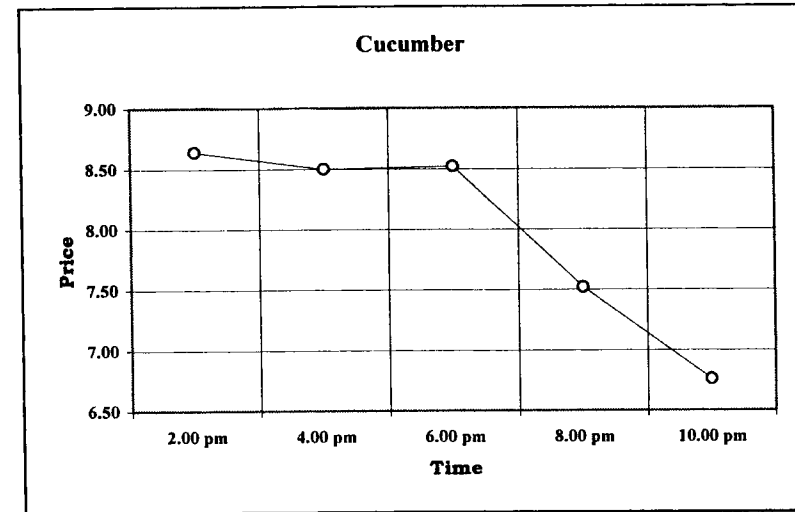
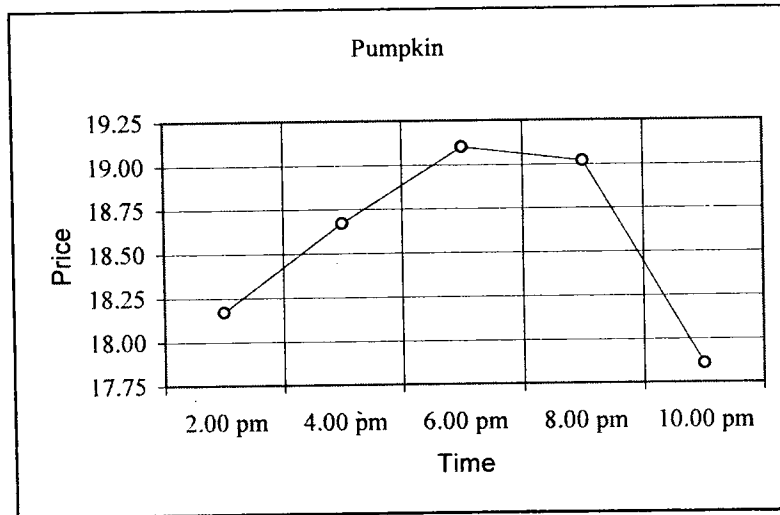


Table 4.3
Price comparison between Dambulla and Colombo Markets

Variety	5 Day Average (22-26 January) Rs/Kg		Change Compared to Colombo Market (Rs/Kg)
	Dambulla	Colombo	
Potato -			
N'Eliya	46.33	49.00	-5.44
Welimada	42.13	41.50	0.63
Imported	39.35	47.50	-8.15
B'Onion	33.53	31.83	1.69
Red Onion - Vedalan	45.45	50.83	-5.38
Imported	48.67	42.50	6.17
Dried Chillies - Imported	93.68	94.67	-0.98
Beans	37.40	36.00	1.40
Carrot - N'Eliya	32.69	32.55	0.14
Leeks	19.23	19.40	-0.17
Beetroot - N'Eliya	34.49	33.08	1.41
Khol khol	19.74	23.50	-3.76
Raddish	8.22	10.55	-2.33
Cabbage - N'Eliya	21.51	22.11	-0.60
Other	16.16	16.67	-0.51
Tomato	47.83	57.90	-10.07
Ladies finger	15.71	20.20	-4.49
Brinjal	24.40	27.84	-3.44
Capsicum	38.78	37.75	1.03
Pumpkin	18.91	19.25	-0.34
Cucumber	7.55	11.60	-4.05
Bitter gourd	26.77	27.40	-0.63
Snake gourd - Long	19.17	18.30	0.87
Luffa - village variety	23.40	26.75	-3.35
Long beans	20.02	19.95	0.07
Ash plantain	22.53	27.72	-5.20
Green chillies	18.75	24.17	-5.41
Lime	5.23	6.06	-0.84
Sweet potatoes	11.89	12.96	-1.07
Manioc	5.03	4.50	0.53

Source: HARTI and Field Survey

4.1.2 Other Factors Affecting Price Setting

Many accepted norms and practices are being followed during the buying and selling activities which also affect in determining the prices of the commodities. The suppliers park their vehicle in front of the shop to which they are expected to sell. The suppliers do not unload until stocks are sold. Otherwise, if suppliers unload the vegetables, this may result in low demand and low price, because buyers consider unloaded vegetables could be previous day stocks. Similarly, the farmers reported the price reduction for packing material are not to acceptable level.

Generally, tomatoes are packed in wooden boxes and marketed. A box of tomato weight is nearly 20-24 kgs. A deduction of 3 kgs is made from the total weight for the empty box. However buyers criticized that actual weight of the box is 4-6 kg, making a loss to them. The top part of stalk of plantain and other banana varieties should be removed. Out of the total weight of plantain bunch, one kg is deducted for the weight of stalk. If top part of the stalk is not removed, then 2 kg is deducted from the total weight of bunch of plantain.

4.2 Distribution Functions

This includes transportation, handling, storage and processing of produce. As regards to the DDEC, the processing is not practiced. Even storage is limited to a few commodities such as onions, potatoes and sugar. Distribution functions are explained in the following section.

4.2.1 Transport

Transport plays an important role in the marketing activities, operating to move products from one place to another. Improvement of transport facilities leads to the efficient distribution of products. After the introduction of the open economic policies there was a marked increase in the number of trucks used for goods transport. The vehicles with open bodies called "ELF" are widely used for vegetable transport. The survey reveals that over 70% of incoming and outgoing lorries belong to this category at the DDEC. Transportation involves the arrival of vehicles from producing areas to the market and departure vehicles taking goods to the demand areas. This refers to the inflow and outflow of the product. Details are tabulated in table 4.4. Suppliers use the bus, four-wheel tractors, vans and big lorries as well. Farmers who have small quantities transport their stocks by foot bicycle and motor cycle.

Table 4.4
Type of Arrival and Departure Vehicles, 20-26 January 2001

Type of Vehicle	Arrivals		Departure	
	No.	%	No.	%
Lorry	73	3.7	147	13.0
ELF/Open body	1430	72.0	884	78.0
Tractor (Four wheel)	16	0.8	0.0	0.0
Tractor (two wheel)	131	6.6	7	0.6
Three wheel	22	1.1	24	2.1
Motor cycle	23	1.2	4	0.4
Foot bicycle	26	1.3	0.0	0.0
Bus	169	8.5	8	0.7
Van	83	4.2	59	5.2
Other	14	0.7	0.0	0.0
Total	1,987	100.0	1,133	100.0

Source: HARTI Field Survey

According to the survey, the pattern of the vehicle arrivals varies with time. Nearly 15% of the vehicles reached the market from 2.00 p.m – 4.00 p.m, while the highest 43% arrived during 4.00 p.m. – 6.00 p.m. as shown in table 3.6. This is the time, many farmers bring their produces for sale. The stock arrivals are low during 2.00 p.m. – 4.00 p.m and gradually increase from hour to hour and reach the 42% during 4.00 p.m. – 6.00 p.m.

The farmers hire vehicles to transport vegetables to the market and if a group hire a vehicle, transport cost is shared among them according to their quantities of stocks. Otherwise there are fixed transport costs for each bags from producing areas to the Dambulla market. The transport cost is Rs.20.00/bag from Kekirawa, Rs.35.00/bag from Welimada, and Rs.30.00/bag from Polonnaruwa and so on. The charge for lorry hire was Rs.1,200 from Matale, Rs.2,800 from Nawalapitiya, Rs.3,750 from Trincomalee, Rs.3,500 from Moneragala and Rs.4,500 from Batticaloa.

The farmers pay a higher charge to transport vegetables from the production field to the main road for the most part in producing areas with bad road conditions. For example, the farmers at Puwakattawa village pay Rs.40.00/bag for transportation to the main road by bicycle covering a distance of nearly 3 km. Moreover, they pay Rs.15.00/bag for transport from the main road to Dambulla, a distance of nearly 10 km.

As shown in the table 4.4, the total number of departure vehicles from the DDEC during the week concerned was 1,133. Out of that, nearly 78% were ELF/Open body lorries. The other types of lorries accounted for 13%. Nearly 5.2% were vans, and about 2.1% were three wheelers.

The buyers also transport vegetables from the market either by own vehicle or hired vehicle. Most of the wholesalers have their own vehicle. The hiring pattern of vehicles by the buyers is the same as that of the suppliers. Sometimes a group of buyers hire a vehicle for the transport of vegetables from the market.

Some of the buyers hire vehicles parked in the market premises. There is an association for transporters operating at the DDEC. But, there is no restriction for the use of vehicles from out side. The lorries heading for Trincomalee to transport wheat flour, drop in at the DDEC to transport vegetables to Trincomalee. Details are given in table 4.5

Table - 4.5
Departure Time of Vehicles and Quantity of Produce, 20-26 January 2001

Departure Time	Vehicle		Quantity	
	No.	%	Kg	%
2.00 p.m – 3.00 p.m	20	1.8	8,745	0.3
3.00 p.m - 4.00 p.m	31	2.7	33,601	1.3
4.00 p.m - 5.00 p.m	29	2.6	59,295	2.3
5.00 p.m - 6.00 p.m	28	2.5	66,125	2.6
6.00 p.m - 7.00 p.m	52	4.6	126,877	5.0
7.00 p.m - 8.00 p.m	88	7.8	208,152	8.1
8.00 p.m - 9.00 p.m	146	12.9	345,720	13.5
9.00 p.m - 10.00 p.m	189	16.7	301,744	11.8
10.00 p.m - 11.00 p.m	217	19.2	383,600	15.0
11.00 p.m - 12.00 p.m	233	20.6	699,511	27.4
12.00 *a.m - 1.00* a.m	85	7.5	262,300	10.3
1.00* a.m - 2.00* a.m	15	1.3	59,803	2.3
Total	1133	100.0	2,555,473	100.0

* Expected departure time due to end of the survey at 12.00 midnight of the day

Source: HARTI Field Survey

Most of the vehicles of suppliers return from the market empty, likewise most of the lorries of the buyers come to the market empty. A few lorries from up country areas take the cow dung to their respective areas from the surrounding vicinity of Dambulla. Similarly, a few lorries, especially from Madawachchiya, unload the vegetables and load the vehicles with fertilizer from Dambulla town to Madawachchiya, due to the prevailing high cost of fertilizer at Madawachchiya.

With better road access to many parts of the country, no problem of transportation was reported. As the roads to the northern and eastern parts of the country are usually closed during the nights, lorries to these areas depart the market very late at night.

4.2.2 Handling

The organization of handling is looked after by two parties One is *nattamies* who are attached to the shops and are employed mainly to unload vegetables from the lorries of the suppliers, such as the farmers and the collectors. Occasionally, they load the vegetables from the shop to the buyers' lorries. Their daily payment is Rs.150.00/day with meals or Rs.200.00/day without meals.

The other category of *nattamies* operate independently. They are responsible for collecting buyers' stocks from the shops and loading to their lorries and answerable in case of any loss. One should become a member of the Independent Nattamies Association at the Dambulla wholesale market, in order to operate as a *nattami*. They charge Rs.5.00/bag for loading into vehicles close to the shops; otherwise the fee is Rs.10.00/bag. But, on the eve of the Sinhala and Tamil New Year, they all charge a uniform rate of Rs.10.00/kg.

4.2.3 Storage

Due to the higher perishable nature of vegetables and the non-availability of storage facilities, no storing of vegetables takes place at the DDEC. Generally, the day to day carry-over stocks are stored in the shops. The traders who deal with onion, potatoes, dried chillies and grain have storing facilities outside the market, but they prefer to have them provided within the DDEC premises.

4. 3 Facilitative Functions

The facilitative functions are activities, which support the exchange and distribution functions. Among them packing/standardization, marketing, credit, financing and marketing intelligence are important.

4.3.1 Packing and Standardization

Traditional packing methods are widely used for certain vegetables such as leeks, kholkhhol, raddish, snakegourd, etc. The plantain and ash plantain are traded without packing resulting in quantity and quality losses. Other vegetables are packed mostly in poly sacks costing Rs.10.00 each. The buyers have to pay this amount to the suppliers for each packed bag if the bag is not returned. The tomato is packed in a wooden box and the usual practice is to return the box.

4.3.2 Marketing Credit

There are two sources of credit available at the market. One is the DDEC trader who provides credit to the farmer in the form of money, fertilizer, chemicals and seeds for cultivation requiring the particular farmer to sell the product to the particular trader. However, according to the survey, only a small portion of farmers have depended on this source. The second source is the traders at the DDEC who provide credit to the buyers. A few number of buyers purchase the produces on a fully or partly credit basis from the traders at the DDEC. Those loans have to be settled within a short period of time. Trading on such credit basis is less than 5%.

4.3.3 Financing

The banking facility is available at the DDEC as well. A branch of the Bank of Ceylon is open at the DDEC from 6.30 p.m. to 1.00 a.m. and provides mostly deposit and withdrawal services to the customers at the market. According to the bank officials, the suppliers, especially the collectors mostly make use of the bank facilities. These collectors from distant areas such as Marassana, Hanguranketha, Ragala, etc deposit the money in this branch after sales for fear of taking money with them during the late night. They withdraw the money from the branches in their respective areas on the following day. The DDEC traders are also serviced by this branch. However, the farmers and the buyers hardly use the facilities because they are not used to patronizing a bank. The bank activities reportedly reach a peak during the period from 7.00 p.m-8.00 p.m. and from 10.00 p.m-11.30 p.m.

4.3.4 Market Intelligence

Many buyers, collectors, and some farmers get the price information from the Dambulla market over the telephone. The DDEC traders also come to know of the prices at the other markets, especially Colombo in this way. Certain farmers rely on the television or the broadcasting medium to know the prices at DDEC. Many farmers learn about the prices through the fellow farmers. In the context of market arrivals, the suppliers as well as the buyers go round the market to ascertain the supply position. Market participants' knowledge on handling, packing, grading and transporting is deficient and hence the product damage is considerable.

4.4 Problems/Constraints and Solutions

- All the practices including the bank staff complained of unclean toilets. Toilet facilities provided, lack proper maintenance. All of the persons operating at the market or coming to the market have to go far away for this purpose. According to them, they are even prepared to pay money for the upkeep of toilets, if they are commercially maintained. It is therefore suggested to implement a user pay system as operating in many places including markets.
- The scarcity of the water at the DDEC is another problem. Most of the people bring water from outside. This should be given immediate attention because over thousands of people visit the market daily. These two problems are interlinked.
- There are some other issues related to the design of the DDEC. The toilets are located right behind the canteen. The water tap is installed near the garbage dump. The shops are not provided with shade that could prevent the vegetables from being exposed to sunlight and rain. Similarly, loading and unloading areas do not have a shade and a considerable damage to vegetables is perceived on rainy days. These drawbacks should be corrected when new markets are designed.
- All the parties except the buyers complained about keeping the market open for 24 hours. Farmers are the principal losers. It is recommended to close the market between 12 midnight - 6.00 a.m.

- The buyers complained of the low quality of the produces. Farmer education on pre and post harvest activities such as time of harvesting, sorting, packing, transporting, etc. is imperative. However, introduction of standard grades is not recommended, because applicability of grades depends on the consumers' willingness to pay for them. Yet, the farmers can be encouraged to practice better sorting of produces in the field.
- The buyers also found fault with parking empty lorries of the shop owners in front of the shop obstructing the loading. Those vehicles can well be parked in the parking lot.
- The traders who sell items such as chillies, onions, potatoes etc. lack storage facilities. Possibilities should be looked for to build storage facilities at the DDEC.
- Our observation reveals that the DDEC has become a buyers market due to the increased supply, the upsurge of traders and the publicity. The vast majority of the farmers who supplied vegetables to the old market have a negative impression about the new market. It is therefore required to find out alternative marketing channels such as direct selling to the large scale buyers to manage the market supply.

Chapter Five

Current Agricultural Marketing Information Systems

In Sri Lanka there are a number of organizations involved in collection, processing and dissemination of information in relation to the Agricultural Marketing Information system (AGMARIS). Some of these organizations such as the Agricultural Development Authority, the Department of Agrarian Services and the District Agricultural Office collect information for their progress reports and such information is not accessible to the general public. There are four agencies involved in AGMARIS on a larger scale and with these agencies a variety of information is available for the general public. They are the Hector Kobbakaduwa Agrarian Research and Training Institute (HARTI), the Department of Census and Statistics (DCS), the Central Bank of Sri Lanka (CBSL) and the Department of Agriculture (DOA). Coverage, methodology and dissemination procedures of these agencies are explained briefly below.

5.1 Hector Kobbakaduwa Agrarian Research and Training Institute (HARTI)

The Marketing and Food Policy Division (MFPD) of the HARTI, which was established in 1979 is responsible in operating the AGMARIS. The AGMARIS was set up in 1979 at the HARTI under a USAID project, which lasted till 1985, by creating a new unit called the Market Research Unit (MRU), re-named as MFPD in 1989. Its activities were further strengthened under the UNDP/FAO project, Marketing Intelligence and Food Information System, which was operated from 1994 to 1999. MFPD has two programmes of data collection: 1) Colombo and suburbs and 2) outstations. The first one includes the Pettah wholesale market and the nine retail markets in and around Colombo, whereas the second one includes 30 locations outside the Colombo district covering eight provinces out of the nine. The northern province has been excluded due to the prevailing war situation. Coverage is limited to the districts important for food production. Therefore, districts such as Galle, Matara and Kegalle are excluded in the programme. Major commodity groups consist of grains, pulses, condiments, vegetables, fruits, coconut, fish, meat and dried fish covering over 100 items with different grades. Given the information coverage, the producer, wholesale and retail prices are collected.

The wholesale prices of rice, chillies, onions, potatoes, green gram and cowpea at the Pettah market, and of rice at the Marandagahamula are collected daily. As regard to vegetables, the wholesale prices are gathered daily from three principal markets, Colombo, Kandy and Dambulla. Wholesale prices of other food items such as fruits, meat and fish are collected twice (Tuesday and Friday) in Colombo and once a week from outstations. Producer prices from major producing areas and retail prices from principal retail markets are collected weekly. The number of observations is 10 for wholesale in Colombo and 5 for outstations for each item. For retail, the number of observations is limited to five both in Colombo and at outstations. The traders who are willing to provide information are chosen purposively. Producer prices are obtained from 5 producers by visiting the area. The HARTI staff recruited for this purpose use structured schedules. Price information in and around Colombo is directly handled by the HARTI staff and for the outstation programme one officer has been attached to each location and stationed at either the office of the Assistant Director of Agriculture, the

Agrarian Services Center or the Divisional Secretariat Office in the location concerned. Supervision is done by the officer in-charge. In addition, the MFPD staff does supervision on random basis. Work schedule for the field staff is two days for wholesale and retail price information collection, two days for producer price and production information gathering and the remaining day in office.

Data processing and analysis are carried out at the Colombo office. Daily prices are faxed to Colombo and weekly prices sent by post. Price ranges, averages and percentages are worked out on a weekly and monthly basis. Price trends and seasonal price variations too come under review. Information is disseminated through both printed and electronic media in English and Sinhala. The weekly and the monthly prices are presented in tabular and graphic form in the Weekly Food Commodity Bulletin and the Monthly Food Information Bulletin respectively. The HARTI sends price information to the broadcasting medium and the television network regularly, but there is no system for regular broadcasting except the programme on Dambulla vegetable wholesale prices, sponsored by the Bank of Ceylon.

5.2 Department of Census and Statistics (DCS)

The DCS is a principal agency responsible for collection and compilation of national statistics including the field of agriculture. As for market information, two divisions namely Agriculture and Prices and Wages are particularly important. Agricultural division (AD) of the DCS collects and maintains databases related to agricultural production. Extent under cultivation of seasonal, semi and permanent crops are ascertained by the Grama Niladari (GN) in his designated area through eye estimates. Frequency of data collection varies by nature of crops; by-annually for seasonal crops and annually for permanent and semi-permanent crops and livestock produces. The Statistical Investigators (SI) estimate the average yields of the respective crops in consultation with the Agricultural Instructor (AI) in the area. Based on extent and average yield, the production is worked out. The SI in the area prepares a summary table by GN divisions, which includes the extent and the production of the crops grown in his area which is sent to the district office for transmission to the Head Office. The SI supervises the GN work and trains him where necessary. The Statistical Officer (SO) in the district supervises the entire programme in the district.

Data processing and analysis are carried out at the head office through computers. Field data is transmitted to the head office by post. Data is presented in tabular form on district basis in the DCS publications such as the Statistical Abstract and Statistical Pocket Book. In 2000, the abstract was made available on CD form.

The Prices and Wages Division (PWD) of the DCS collects the producer and retail prices of seasonal, semi and permanent crops, livestock produces and services. Retail prices are collected from 25 principal towns, one from each district for the purpose of which three shops have in the town have been selected purposively. Frequency of data collection varies weekly, fortnightly, monthly and quarterly subject to the nature of price variation.

Weekly price collection covers 20 items including rice and vegetables, while the fortnight data collection programme consists of 125 items such as pulses, fish and dried fish. The number of items in the monthly data collection is 77 including milk powder and canned fish. Prices of consumer durables and services covering 69 items are collected quarterly. Producer prices are collected for 90 food commodities from major producing areas in the three identified Divisional Secretariat divisions in the district, once a month (third week of the month). The respective SI in the area collects producer prices, while the one of the SIs in the district office gathers retail prices. Structured schedules designed for each commodity group are applied for data collection.

In addition to the island wide price collection programme, there are two special programmes for a specific purpose: one for preparation of consumer price indexes and the other on a request made by the Treasury. For the preparation of Colombo Consumer Price Index (CCPI) and the Greater Colombo Consumer Price Index (GCCPI), retail prices are collected through purchasing on two days (Tuesday and Wednesday) per week from 15 markets located in Colombo city and its suburbs. The Treasury programme includes four items namely, rice (samba, parboiled, raw and white), chillies, potatoes and big onions. Retail prices of these commodities are collected weekly by the district office from the principal towns and E-mailed to the head office.

Data processing and analysis are carried out by the staff of the head office using computers. Price ranges, averages and percentages are calculated and presented in tables and graphs. There are two special publications: Selected retail prices in Colombo (weekly) and annual bulletin on retail and producer prices. In these publications, the price comparison is made in comparison to the previous period and the situation an year ago.

5.3 Central Bank of Sri Lanka (CBSL)

The Department of Statistics of the CBSL has engaged in the collection of price data on an island wide basis since 1978. This programme is called the "Countrywide Data Collection System (CWDCS)". Under this programme, the producer and retail prices of the major food commodities are collected from 100 centers (93 centers are presently in operation due to North and East war situation). Structured schedules have been prepared for different commodity groups for data collection. Retail prices are collected on a weekly basis, and the producer prices on a bi-monthly basis. The information on production performance and the underline reasons for variation in producer prices is gathered monthly. The CBSL collects the prices and the related information using graduate teachers selected through an interview. A list of teachers, willing to be involved in this task is obtained from the school principals in the area concerned and the CBSL selects one for each center. In the selection of personnel, experience and willingness to work are considered in addition to academic qualifications. The teacher investigators are exposed to a special orientation on data collection and seminars and workshops are conducted on a regular basis to exchange views on production patterns and the prevalent specific problems.

Written instructions have been given to each investigator in terms of which, retail prices are collected from shops and fairs. If the fair operates more than a day in a week, the busiest day i.e., Saturday/Sunday should be selected for the reference day. Price information from shops should be collected for three days after price collection at the fair. If there is no fair within a distance of eight kilometers, the retail prices should be collected twice with three-day intervals. Producer prices should be obtained from the producer himself. If the producer transports produce to the fair or any other location for sale, the cost incurred for this task should be reduced from the price received by the producer because CBSL defines the producer price at farm-gate.

In addition to the CWDCS, a daily price collection programme commenced in 1996. Wholesale prices are obtained from the Pettah market and retail prices from 11 markets in and around Colombo. The CBSL's own staff are engaged in data collection in this programme.

Data compiled from the CWDES have been published annually in the "Price and Wage Statistics" from 1979 to 1993. Information from 1996 is available in diskette form. In addition, the average prices are published in tabular form in various publications of the CBSL, such as the Monthly Statistical Bulletin, the Economic and Social Statistics and the annual report. A weekly report on price variations of major commodities in selected markets is also published in the newspapers. The national TV telecasts rice prices at Marandagamulla in its economic review programme of Saturday.

5.4 Department of Agriculture (DOA)

The Socio Economic Planning Center (SEPC) of the DOA collects data on cost of production of major food crops on a seasonal basis. Multi-stage random sampling technique is used for sample selection. The first stage is selection of the districts, examining the cultivated extent and expected production in the season concerned. At the second stage, the Agrarian Services Centers (ASC) from the selected districts are chosen based on the extent cultivated. At the third stage, one ASC is selected for a district. The GN division is then selected from the ASC in the fourth stage. Finally, 50 farmers are chosen from the village randomly. The Economic Assistants of the SEPC collect information on cost of production using a structured questionnaire after the harvesting of the crops. The questionnaire includes three types of inputs: labour, materials and draught power. In addition, information on use of family-owned inputs and the prices of both inputs and the outputs are included in it.

A detailed analysis is carried out by the DOA. Cost of production per unit of land and per unit of output is calculated both including and excluding family inputs. Family owned inputs are valued on the basis of market price. Similarly, gross and net income per unit of land is worked out. Return on labour and capital is also given in the analysis.

5.5 Problems and Constraints in the Current Market Information System

An overview of the existing market information collection, processing, analysis and dissemination programmes implemented by various organizations reveals a number of issues.

1. There is a duplication of works, which makes detrimental to the credibility of results when users find considerable differences on the same data collected by various organizations. Furthermore, this is a waste of scarce resources and public money. The major reason behind this situation is the lack of information sharing habits among the agencies.
2. Methodology implemented by the DCS and the CBSL is not appropriate for a market information system because of limited relevancy and lack of timeliness. The DCC collects the producer prices once a month and the CBSL once in a fortnight. Since producer prices vary significantly even within a week, the applicability of these prices is questionable. Also, the DCS does not collect wholesale prices and the CBSL collects only from Colombo. There is also not much relevance in the collection of extent and production information on a seasonal basis by the DCS. At least, such information should be made available on a monthly basis in order to monitor the supply situation and the market arrivals. Most of the information collected by the DCS and the CBSL is not available on time. There are at least six months time lag between data collection and publishing. Only the HARTI information is made available within the week concerned or in the same day.
3. Scant attention has been given for supervision of the data collection due to financial constraints. However, supervision and training of data collectors are equally important as data collection because accuracy of the data depends on the degree of supervision.
4. The coverage of marketing information is inadequate. All the organizations have given too much attention to the collection of domestic prices but not given similar attention to interpret the price data. Similarly, none of the organizations maintains statistics on marketing costs such as transport, loading/unloading charges, wastage, and market levies and market arrivals and trader's profile. Likewise, none of the organizations collects data on and analyzes the international market situation which has a direct impact on domestic agriculture in the context of globalization.
5. Though a wealth of time series price data is available at the HARTI, the DCS and the CBSL, little attention has been given to analyze such data. Detailed price analyses are needed to identify factors influencing price behaviour, to evaluate the market performance and to develop a model for price forecasting. It appears that lack of expertise has been a major problem contributing to this situation. An analysis of market information is required to establish a market intelligence service.
6. It appears that market information is not widely utilized for decision making. Theoretically, the farmers, the traders and the policymakers are the major users of market information. Due to the absence of a market news service, information does not filter down to the farmers. Many traders are not aware of much of the existing information and face difficulties in obtaining information due to bureaucratic red tape. Many policy decisions are taken on an *ad hoc* basis and subjectively where information is disregarded.

Chapter Six

Market Information Needs Assessment

Since marketing has a direct link with input supply and production, market information is defined in a wider dimension for this study. It includes information in relation to inputs, production and distribution of agricultural commodities. Market information is categorized as follows:

1. Input availability
2. Technical know-how about selection and usage of fertilizer and agro-chemicals
3. Product prices
4. Buyers' needs
5. Pre and post harvest activities
6. Production

A Rapid Appraisal Survey was conducted among the farmers, the traders and the policy makers in the Matale district to ascertain the demand for above information during the period 20 - 28 January, 2001.

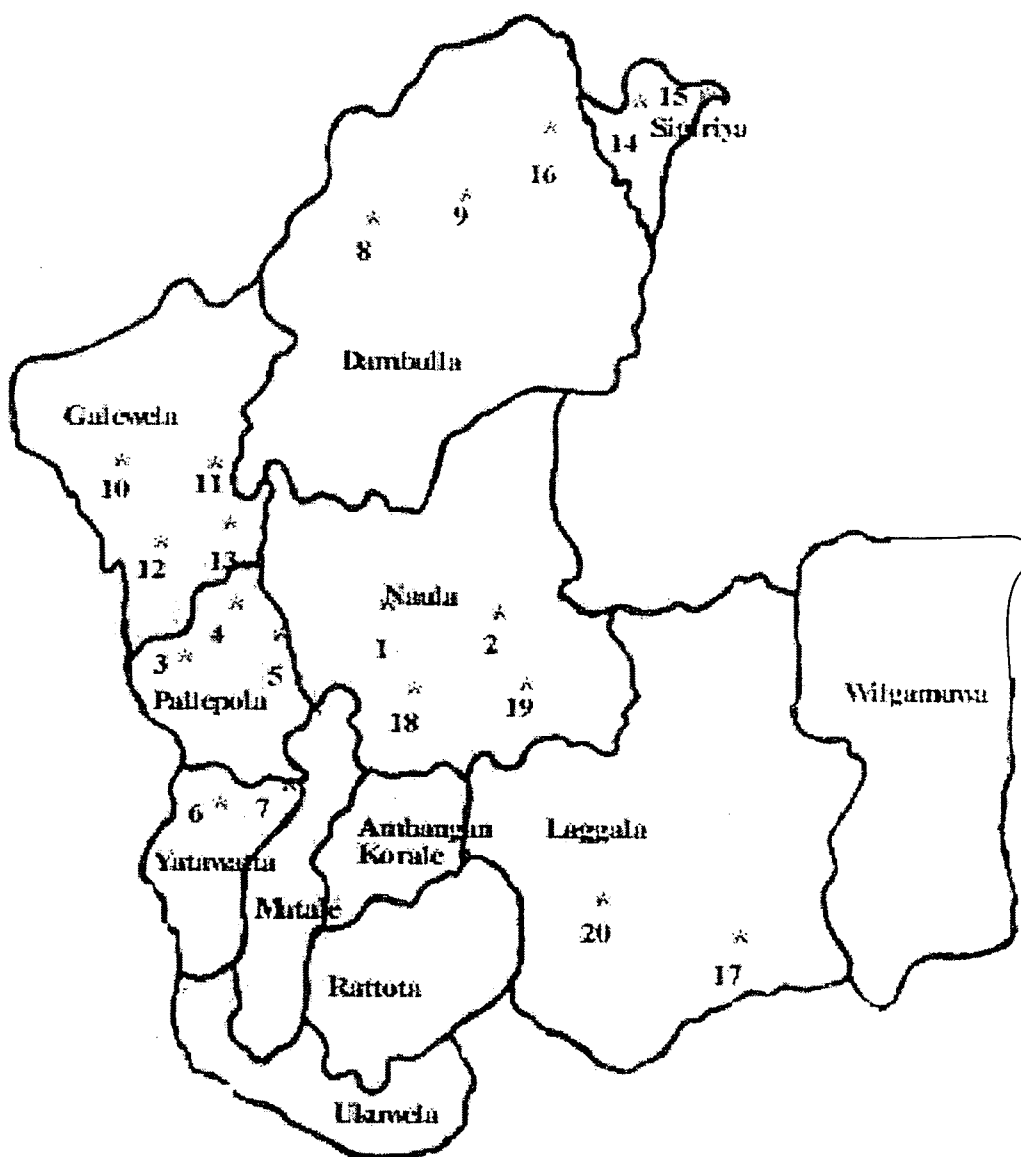
6.1 Farmers' Survey

For this survey, the district was divided into seven production blocks: 1) Naula, 2) Pallepola, 3) Yatawatta, 4) Dambulla, 5) Galewela, 6) Sigiriya and 7) Laggala. The Researchers conducted one-day focus group interviews and informal interviews with the key personnel in each block. Villages visited were Pilihudugolla and Melpitiya in the Naula block; Homapola, Walmoruwa and Olagamwatta in the Pallepola block; Yatawatta, and Walawela in the Yatawatta block; Puwakattawa and Kiralassa in the Dambulla block; Dewahuwa, Kosgahainna, Thalakiriyagama and Ibbankatuwa in the Galewela block; Rangirigama, Palutawa and Kalundawa in the Sigiriya block and Hettipola, Ambana, Kongahawela and Illukkumbura in the Laggala block. Chart 6.1 shows the study locations where the market information needs assessment (MINA) survey was conducted at the farm level.

Major findings of the farmer survey are given below.

- The farmers can be grouped into two: the young farmers below 40 years of age and those above 40 years. It was observed that over 50% of the farmers belong to the first category, which augurs well for the Matale district to develop commercial farming. The young farmers are innovative, whereas old farmers are conservative, averse to risk and dependency syndromes. The young farmers can easily be convinced of the importance of market information, but the old farmers need detailed explanation to master that importance. Nevertheless at the end of the discussion, all the respondents expressed their need to get the importance.

Chart - 6.1
Study Locations of Farmer Survey



1. Pilihudugalla
2. Mailpitiya
3. Homapola
4. Walmoruwa
5. Olgamwatha
6. Yatawatha
7. Walewela
8. Puwakathtawa
9. Kiralessa
10. Thalakiriyagama

11. Ibbankatuwa
12. Dewahuwa
13. Kosgahahenna
14. Rangirigama
15. Palutawa
16. Kalundewa
17. Hettipola
18. Ambana
19. Kongahawela
20. Illukkumbura

- Many farmers view the prices telecast on the television. Armed with this knowledge, some farmers were able to bargain for higher prices. In the mean time some pointed out that traders refused to accept the announced prices claiming that they are not related to the Dambulla produces and tend to offer the low prices announced. There was no complain about the time of telecast, but the prices should be read over at a lesser speed.
- Price information is what the farmers need most in order to bargain with the buyers; to delay the harvesting for a few days to control the market supply; take storage decisions for crops like big onions, green gram, cowpea and maize and to dispose the stocks and to check the prices offered by the traders when transactions take place without the presence of the farmer.
- The farmers requested that the prices be telecast in a time specific and quality specific in order to avoid wide ranges in the price. They suggested several time periods: morning between 6.30-7.30, day time 12.00 - 2.00 and evening 7.00-8.30. Many farmers wanted the prices to be announced over the broadcasting medium also because of limited access to television due to non availability of electricity. This will also give them a chance to listen to prices while undertaking farming activities (many farmers use to take radio to the farm). However, the farmers in some areas such as Dewahuwa and Pilihudugolla preferred the television and the most popular TV channel was "Swarnawahini" and the broadcasting channel was "Sri FM".
- The second most important demand was for technical know how on pre and post harvest activities, because many reported that they never get any awareness on these aspects. This is an area that needs to be paid special attention because the buyers interviewed at the Dambulla Dedicated Economic Center reveal that consumers are now looking for quality produces and produces available in the DDEC are not in good quality. The farmers pack damaged/rotten/ripen/matured produces in the middle of the bag, and tend to refuse the buyers' request for checks to ascertain the quality. The buyers are discontented and they may move to the collectors operating out side the DDEC if this trend continues. This was confirmed by the collectors at Galewela who claimed that their sales are now on the increase.
- Information on input occupies the third place. In this regard, the farmers need prices of agro-chemicals at different stages such as import, wholesale and retail. The farmers pointed out that the price of agro-chemicals fluctuates significantly in the short run and a large discount (20%) is offered when purchases are made on spot cash. In these circumstances, the farmers are keen on in knowing the mechanism of pricing. Also the farmers want to improve their knowledge on the selection and application of agro-chemicals. Presently, input dealers educate the farmers in this area. The farmers are of the view that an independent party should be involved in this task.
- The fourth most demanded information was about getting new buyers, a pressing need felt by the young farmers in particular. At present, the DDEC is the only source available for the vast majority of the farmers to sell their produces. Due to the increased number of traders at the new market, the supply has increased

considerably. For instance, the number of shops selling up country vegetables has increased to 15 at the new market from 5 at the old market. Since many new traders do not have close links with the farmers, they use to go to the producing areas to purchase vegetables for sale or to develop contacts with the collectors in the producing areas. This results in creating a buyers market where supply exceeds the demand registering lowering prices. In these circumstances, the farmers look for alternatives to sell their produces. The farmers requested to link with big buyers such as exporters, hotel/army suppliers and processors.

- The least demand was for production information. Although the farmers know about the production situation in other areas they cannot change the crops grown and planting period because farming is subject to the weather. If crop choices could be increased by introducing new crops, the production information then will be in demand.

6.2 Traders' Survey

Informal interviews were conducted with the traders at the Dedicated Economic Center at Dambulla, the collectors in the major producing areas in the Matale district and wholesalers/retailers coming to the DDEC for purchasing. Unlike in the case of farmers, the trader's demand for market information varies according to the type of goods they sell. The vegetable traders and the collectors need information on the production situation in different areas to understand the market arrivals. They also reported that the farmers could be advised to grow crops, which are not planted largely. The traders who handle the imported commodities demand for information on government policies and production/supply situation in the importing countries. The collectors trading locally produced items such as big onions, dried chillies and green gram also want to know the government policies in order to maintain stocks. None of the traders demanded for price information because traders get price information over the telephone by contacting their customers. Due to the close relationship between the two parties, the traders do not have a problem of accuracy.

It was also found that the traders have negative impressions about the price broadcasting programmes. They argued that since prices change significantly during the course of the day, it is not possible to broadcast prices accurately. However, the actual situation is that price broadcasting reduces the trader's profits. For example, wholesalers have to limit their margins if the retailers who buy from them know the wholesalers' buying price. The farmers too conformed the traders' negative attitude about the price information dissemination. When we discussed the setting up of a price board at the DDEC, the farmers reported that the traders would destroy it.

6.3 Policymakers' Survey

Although power has been devolved from the central to the provincial level, decisions are still taken by the central government especially in the area of agriculture. As such, the demand for information is poor at the provincial and the district levels. The District Agricultural Committee (DAC) is the forum where the district agricultural situation is

monitored every month. Under the "AMA" programme, five committees have been set up to look into the agriculture in the district. It is expected to review the district agricultural situation in line with these committees at the DAC. The marketing committee headed by the Assistant Director of the ADA is one such committee. At the discussion held with the AD, it was found that he contacts the HARTI officer to get the information required for the DAC. However, it was observed that agricultural issues are not discussed in depth at the DAC and hence the need does not arise for information. This would be the reason for not inviting the district officer of the DCS to the meeting. He is the officer responsible for district statistics.

It was found that some organizations such as the Department of Agrarian Services, the Assistant Director's (Agriculture) Office and the Agricultural Development Authority in the Matale district collect agricultural statistics to monitor their progress. However, none of the organizations maintains a database and review such data comparing with those of the previous month and the previous year for the same period. It appears that information is not used in a meaningful way.

Chapter Seven

Establishment of Marketing Centers in the Matale District

It is important to study factors behind the development of existing markets in examining the setting up of new markets. Agricultural markets could be divided into two types: assembly markets/collecting centers and distribution markets. The assembly markets are located in the producing area for the major function of the collection of production from the small producers and distribution of stocks to the demand areas. The structure of the assembly market comprises a large number of suppliers and a few buyers. The degree of production in the area and access to transport are two major factors affecting the development of assembly markets. The Bandarawela market is one such example. It is located in a major production area as well as it has a road network with the southern parts of the country from where most of the buyers come. The distribution markets are located in the consumption areas. The major role is bulk breaking as against bulk accumulating in the assembly market. The Kegalle vegetable wholesale market, the Marandagahamula rice wholesale market and the Colombo market are examples of distribution markets. The degree of consumption and access to transport are two factors that condition the development of distribution markets.

The Dambulla Dedicated Economic Center (DDEC) is a specific one, which operates as an assembly market as well as distribution market because it is located in the production area and also in the vicinity of the demand areas. The farmers in the area bring vegetables in small quantities and the collectors in large quantities for sale. A large number of buyers from different demand areas visit the market for purchasing. The success of the DDEC is due to a number of factors such as being a central location, war situation in the north and east, improvement of transport facilities, increased production due to the Mahaweli project, direct involvement of the farmers in selling, availability of different types of commodities and layout and design of the market.

Investigations were carried out in the Hettipola area to explore the possibility of setting up a new market, consequent to the improvements of transport facilities, after the construction of new bridge connecting Uva to Matale district. There are both positive and negative factors.

7.1 The Positive Factors

1. Transport network with Ampara, Mahiyanganaya, Badulla, Polonnaruwa and Dambulla.
2. Being a location between Ampara and Dambulla - About 50 lorries from Ampara, Padiyathalawa, Siyambalanduwa, Moneragala and Bibile areas carrying goods to the DDEC are passing Hettipola daily. If the buyers are available for these produces, the lorries will stop at this place. It was observed that major produces are pumpkin, cucumber, maize and kurakkan from Siyambalanduwa and orange, lime and banana from Bibile and Moneragala areas.
3. Closeness to the Mahaweli production areas - A large quantity of mangoes are presently produced in these areas. The interviews held with transporters passing

this new bridge revealed that crop diversification could follow if marketing ensures.

4. Closeness to the up country vegetable production areas - This means transportation of up country vegetables at a lower cost and ensuring improvement of quality.
5. Increasing trend in transport cost - It was found that transport cost has gone up by Rs.5 per bag with the recent fuel price hike. Many distant traders reported that they would not be able to come to Dambulla if fuel prices increase further. They also added that high prices could not be fixed due to declining purchasing power of the consumers.

7.2 The Negative Factors

1. Inability to compete with the DDEC.
2. Limited production of crops such as vegetables and fruits in the area, which are largely marketed in the agricultural markets- paddy is the dominant crop in both *maha* and *yala* seasons.
3. Limited demand areas. At the DDEC, a substantial amount of stocks move to the north and east after closing down of the Vavuniya wholesale market.

Establishment of new markets is more difficult than the development of existing market such as at Dambulla. A number of factors explained above have to be critically examined. In this regard, all the parties such as the suppliers, the buyers and the transporters have to be consulted. If there is a possibility to set up a new market with some incentives such as provision of rent-free stalls, for a couple years, it would be possible to attract talented business people. It may be worthwhile to operate the market for a few days per week as at Kegalle. All these issues need to be studied. Considering all these factors, it is not possible to recommend the setting up of a new market at this stage. A detailed feasibility study is suggested.

Chapter Eight

Proposed Market Information System for Matale District

8.1 Introduction

This chapter focuses on the question of "how" to establish and operate the Market Information System (MIS) for the Matale district. Findings of the literature review, a review of the present MIS operating in the country and finding of the market information needs assessment survey will be used in this task. In designing a MIS, three issues need to be considered:

1. Gradual implementation of the MIS rather than going for a comprehensive programme at once is vitally important. It allows adjustments based on lessons learned and unanticipated adverse conditions while at the same time it requires less financial resources in the initial stages.
2. Another critical consideration for successful implementation is the flexibility of commitment to change whenever required. Since marketing is a dynamic process, things are in a process of change. The system should be flexible to accommodate these changes.
3. Institutional collaboration is essential because the MIS involves multidisciplinary activities that cannot be handled by one agency. Similarly, formal institutional collaboration with several institutions and agencies active in generating and disseminating market information is required to avoid costly duplication of functions. However, this is one of the most difficult principles to translate into practice in a country like Sri Lanka, where many cannot understand the scarcity of public money.

The MIS has four major activities: data collection, processing, analysis and dissemination. For undertaking these activities, the relevant institutional mechanism has to be identified. At present, there are a number of organizations at national level involved in collecting market information in one way or another as explained in the chapter five on the review of the present market information system. Nevertheless, there is no organization involved in the operation of a MIS either at provincial or national levels. It is therefore proposed to establish a Market Information Unit (MIU) for Matale district.

8.2 Establishment of a Market Information Unit (MIU)

The chart 8.1 explains linkages, activities and output of the proposed MIU. Details are given in chart 8.1.

8.2.1 Location

In setting up a MIU, the major concern is the location. There are two options, either market base or administration base. Since there is not much demand from the administrators for market information, the market based option is to be considered. As far as market based option is concerned, the DDEC is the best place to establish the MIU, due to a number of reasons. First, over 95% of the vegetables produced in the Matale district are sold at the DDEC. It was found that the DDEC is the one and only market available for most of the farmers to sell their vegetables. Therefore, the market prices

should be collected from the DDEC. If the MIU is established at the DDEC, the price collection and transmission become easy. Second, the dissemination of market information to the farmers is convenient because the farmers are present at the DDEC for selling their produce. Announcing prices through the already existing public address system (PAS) could be implemented. Third, the MIU could be set up under the management of the DDEC. Dissemination of market information is a market development activity which should come under the market management. Finally, the physical facilities such as office space and office equipment prevail at the DDEC. The ideal place for the MIU is the bank premises, which can be obtained after shifting the bank to the new building.

8.2.2 Functions

The MIS includes three main components: 1) Market News Service (MNS), 2) Market Analysis Service (MAS) and 3) Marketing Extension advisory Services (MEAS). Implementation of all these components as a whole take longer period such as ten years. In Sri Lanka, the MIS has been in operation for over ten years. All components could commence to some extent. Activities of the MIU is presented in chart 8.1.

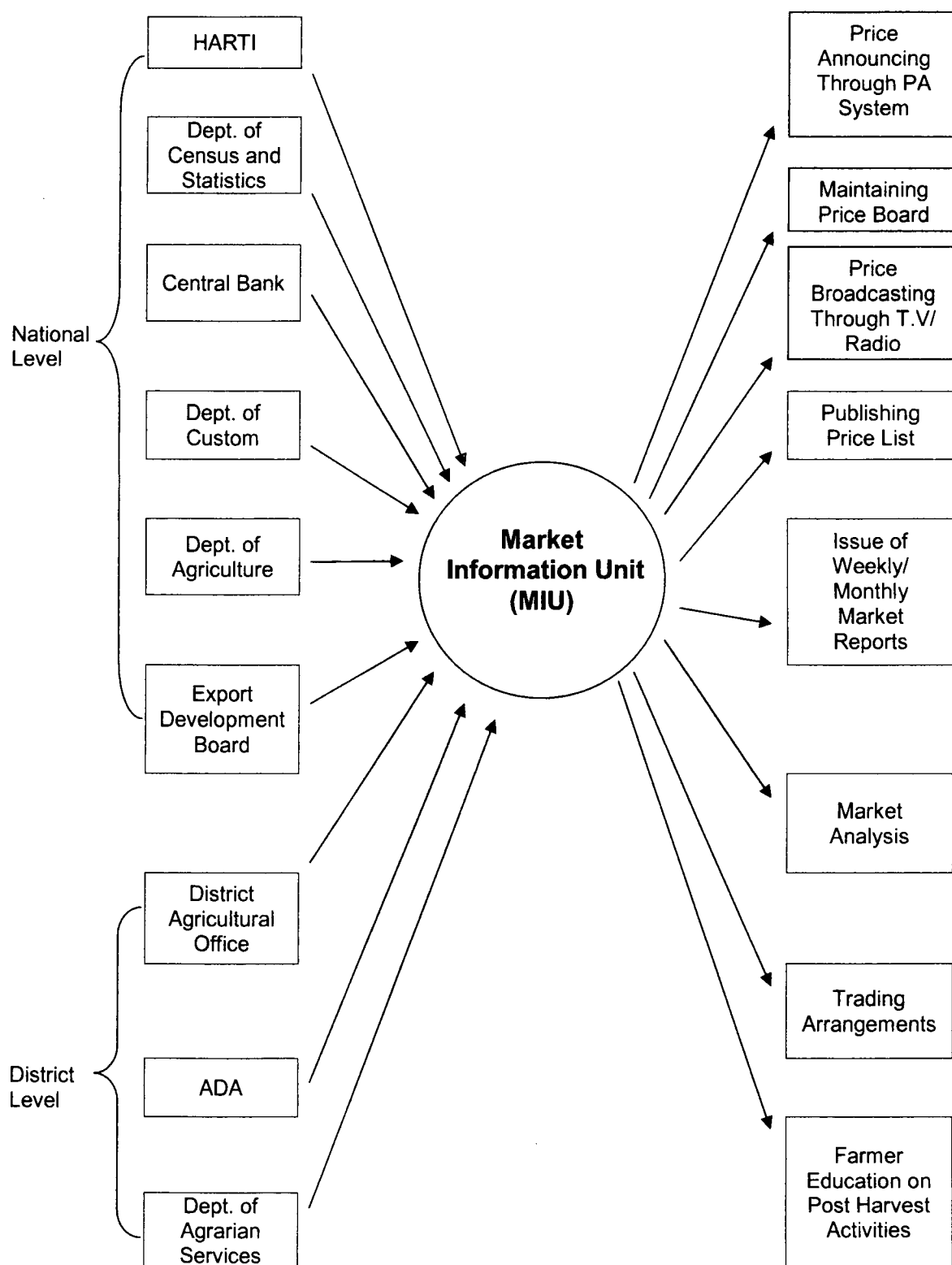
8.2.2.1 Market News Service (MNS)

The MNS includes information on the prices, supply and demand at both domestic and international markets, new seed varieties, fertilizer selection, new technological innovations including product development and trade profiles. Usually much of the information is made available to the users through printed materials such as bulletins and leaflets. It is therefore suggested to publish a weekly and a monthly market report providing current information related to the subjects concerned.

Prices are considered as the heart of the MNS, hence the collection and the dissemination of price information takes a high priority in developing the MIS. The procedures of collection and dissemination of prices at the DDEC are described in this report. It should be noted that many commodities should not be included in the MNS because of difficulties in the dissemination of information. In selecting commodities produced in the Matale district, major commodities grown commercially in the cultivation period and commodities with high price fluctuation should be selected. In the Matale district, there are three main cultivation periods: October-November, December-January and May-June. Crop cultivation varies by season. For example, big onion is the dominant crop during the cultivation period of May and June. Prices that are disseminated through MNS usually content producer and wholesale prices in the major producing areas and major wholesale market/centers'. With regard to Matale district, the collection of prices at the DDEC is adequate because over 95% of vegetables produced in the district are sold by the farmers at this market. Therefore, the prices in this market represent both producer and wholesale prices. The producer price could be obtained by deducting the trader's commission from the market price. In addition to the DDEC prices, the dissemination of Colombo prices is important because many traders bargain with the farmers for lower

Chart 8.1

Proposed Market Information Unit at Dedicated Economic Center



prices, claiming that Colombo prices are low. But, the analysis reveals that Colombo prices are higher than those at Dambulla (Annex 5). Especially, during the period of harvesting big onion which usually falls from August to November, the Colombo market prices of big onions need to be broadcast because prices in Colombo impact in determining prices at the DDEC and also some farmers send big onions to Colombo for sale.

Time and techniques of price collecting and variety of commodities are also important factors to be considered in designing the MIS because accuracy and relevancy of prices depend on these three factors. It was observed through the price survey that prices vary depending on the times of the day and the type of variety and the origin of the product. Prices register an increasing trend till 6.00 p.m. and decline afterwards. Winged beans of the long variety fetches higher prices than those of the short variety. Vegetables produced at Nuwara Eliya receive a high price than others, while beans produced at Matale also get higher prices. It is therefore recommended that prices be collected two times per day: 2.00 p.m. and 8.00 p.m. of the day by varieties and origin of the product concerned. Commodity specification by variety and location is given in Annex 7.

As for the price information collecting techniques, the collection of previous day prices by interviewing the traders at DDEC is presently adopted. This methodology has a problem of accuracy in data because the traders are not well disposed towards the price dissemination programme. The HARTI's experience reveals that the traders are not supportive in providing information. This would be a major constraint in collecting prices. It is not practically possible to collect the price information from the farmers by visiting the producing areas because of high cost. Though the farmers are present, they leave the market soon after the transaction is over. If the farmers have the will to come and report the price they received to the MIU, the problem could be rectified easily. There is a stall for the Farmer Company (FC), but it was not active at the time of the survey. If the FC could be reactivated, the accuracy of prices reported by the traders could be checked with the FC prices. It is also advisable to create one or two FCs by giving a business orientation to the innovative young farmers who can compete with the private traders and provide opportunities to marketing at the DDEC. If stalls are not available, open space can be provided with a reasonable charge (nothing should be free) to do the trading temporally. If this happens, more accurate prices could be obtained from the FCs. However, the traders should be forced to support and provide accurate information to the price collectors. Otherwise action should be taken against them. This can be implemented at the DDEC because it is a regulated market. Since there are 143 stalls at the DDEC, observations (prices) should be collected by two market reporters. After collection of the prices, they themselves should process the prices for dissemination.

Different dissemination strategies could be used. The easiest way is by announcing the prices for the farmers at the market through the public address system (PAS) already existing at the DDEC. It was observed that over 700 farmers visit the market every day for selling their produces. Also a price list could be prepared for sale. Further, the prices should be displayed on the board. There was a suggestion at the time of the field survey to disseminate prices at the DDEC through a television system. This possibility should be explored because it can be used for educating of farmers on post harvest activities and

modern business techniques as well. In addition, both radio and television should be used to disseminate the prices for the benefit of the farmers who are not present at the market. Publishing prices in the newspapers should be accorded lower priority because it was found that the farmers do not have the habit of reading daily newspapers. In broadcasting the prices on air, sufficient time should be given for the listeners to write down the prices to broadcast. The farmers requested that the prices be broadcast for more than once. The convenient times for them are 6.30-7.30 in the morning, 12.30-2.00 in the afternoon and 7.30 - 9.00 in the evening.

8.2.2.2 Market Analysis Service (MAS)

The MAS includes an analysis of market information and interpretation of the results. Interpretation means answering the question of "why is it so?". To do that, more information such as the supply, market arrivals, imports and the prices at the other markets, especially Colombo is required to be obtained. Except for market arrivals, all the other information could be obtained from the secondary sources as indicated in the chart 8.1. Volume monitoring could be achieved by one of two strategies: 1) asking the traders to report with regard to daily purchase and sales and 2) monitoring of trucks at entry and exit points. Both are practically impossible. As regards the price analyses, weekly and monthly analyses are suggested. In analyzing the prices, the average price needs to be calculated by dropping the lowest and the highest price from the data seems to be more accurate on an average. The Philippines applies this method. The price analysis should include price comparison with Colombo prices, previous reference period prices and price behaviour in the period concerned. Weekly and monthly price bulletins are outputs of the MAS. Weekly market report should include a brief analysis of supply situation, quality of the produce and comments on prices. In addition, some simple analysis such as seasonal price behaviour could be performed (Annex 6) for the education of the farmers towards the balancing of supply and demand at the market. In the long run, detailed price analysis such as price forecasting and margin analysis could be carried out.

8.2.2.3 Marketing Extension Advisory Service (MEAS)

The aim of the MEAS is to educate the market participants including the farmers and the policy makers to improve on an effective and efficient food marketing system in a country. Development of the MEAS takes time and hence it is the end activity of the MIS, because skilled personnel are required for the development of the MEAS. Nevertheless, there is a strong demand from the farmers to educate them on post harvest activities. Similarly, the product development is necessary to avoid market gluts. At the end, the development of a market driven production system is a must to sustain Sri Lankan agriculture in the context of globalization. Considering these two factors, some activities such as video shows on post harvest activities and the development of farmer-trader linkages are suggested to be implemented at the initial stage of the MIS. Similarly, advisory services to the farmers could be implemented through the existing field staff.

8.3 Training Needs

Training will always remain one of the most critical elements within any MIS design. The MIU staff, and the users of market information require training. It was found that the farmers need training on the use of market information in decision making. It is also required to change the attitudes of the farmers because many of the farmers are conservative and fear risk taking, and lack entrepreneurial skills. The farmers are unnecessarily dependent on the traders. These feelings have to be changed to increase the demand for information. Our group interviews held with the farmers during the course of the field survey reveal that dependency syndrome could be changed through education. After the group discussion, the young farmers themselves discuss the ideas explained by us enthusiastically. It was also found that the young farmers have business skills. They may be directed in to the business by providing business training and credit.

8.4 Implementation Mechanism and Resource Requirements

The MIU along cannot undertake all the activities and some activities such as the MAS and the MEAS require a co-ordinated effort. Also external and internal technical assistance are required at the initial stage of its implementation. The HARTI can provide internal technical assistance. For external assistance, a Marketing Economist with experience in designing, implementing and evaluating MIS in the developing countries, a Communication Specialist and an Information System Specialist would be requested. None of the above specialists would be requested full-time for the entire project period.

The Marketing Economist would have the most prolonged presence to ensure continuity and an understanding of all aspects of the MIS implementation. The duration of other positions will vary according to the problems encountered during implementation.

The MIU should consist of two permanent staff, Market Intelligence Officer (Officer in-charge) and Market Intelligence Assistant and two market reporters appointed on contract basis. The collection of market information is a boring activity and it does not need highly skilled personnel or experienced personnel, use of young personnel is essential at all times. The proposed unit should have equipment such as two computers, a fax machine, a photocopier, a mobile telephone, a land telephone, a television monitor, etc.

References

- Anthony M Z (1985) Cooperative Agreement on Settlement and Resource Systems Analysis, Clark University, USA.
- APO (1997) Marketing Systems for Agricultural Products.
- Central Bank of Sri Lanka, (2000), Basic Socio Economic Data, Matale district, 1999/2000
- (1998) Marketing of Agricultural Products in Central Province of Sri Lanka.
- FAO (1987) Marketing Extension Services for Small Farmers, AGSM Occasional Paper No .1
- (1993) Marketing Intelligence and Food Information System Projects of Sri Lanka, F AO/SRL/ 021.
- (1995) Review of Horticultural Marketing Information System Indonesia, AGSM, Occasional Paper No. 15.
- Gary E (1996) Guidelines on Agricultural Market Performance, David Wilcock, Development Alternatives, Inc.
- Leckie L (1990) Marketing Development in Northern Provinces of Thailand, AO/TCP/THA/8958
- Menegay M *et. al.* (1992) Strategy and Action Plan for a Philippine Agricultural Marketing Information System, Abt Associates Inc., USA.
- Menegay M and Rupasena L P, (1998), Study of Agricultural Markets In Sri Lanka, World Bank.
- Rupasena L P *et. al* (1998) Study of Production and Marketing of Vegetables in Nuwara - Eliya district.
- Rupasena L P (1998) Seasonal Price Variation For Major Agricultural Food commodities, HARTI.
- (1999) "Market Information System", Paper presented at the Workshop on Strengthening Linkages between Rural Credit and Agricultural Extension and Marketing, organized by Un-ESCAP.
- (1999) "Collection and Use of Marketing Statistics for Food Policy in Sri Lanka", Paper presented at the Experts Consultation Meeting on Development of Agricultural Statistics for Food Policy, organized by F AO, Bangkok.
- (1999) "Food Supply and Distribution to Colombo", Paper presented at the workshop, organized by F AO.
- (1999) "Marketing Supports", Paper presented at the Workshop on National Policies and their Impacts on Food Security, organized by National Academy of Sciences.

Annex 01 - a : Average Extent under Vegetable Cultivation by Agricultural Instructors Division, Maha Season, (1998 - 2000)

Unit: Hectare

AI Range	Crop																			
	Beans		Tomato		Bitter Gourd		Luffa		Brinjal		Long Beans		Wing Beans		Cabbage		Pumpkin		Sweet Potato	
	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank
Naula	312.67	1	3.33	3	2.00	12	2.00	13	10.83	8	3.50	12	10.00	4	1.00	7	5.67	12	9.67	6
Hettipola	-	-	2.00	7	6.00	3	5.33	3	14.67	5	2.33	14	3.17	7	4.00	2	5.67	12	4.00	12
Kongahawela	86.00	4	3.67	2	1.67	14	1.33	14	16.33	4	7.33	5	3.00	8	1.33	4	18.67	2	6.00	7
Thalakiriyagama	5.67	9	3.33	3	22.33	1	15.67	1	14.00	6	13.17	1	2.67	10	1.17	6	20.67	1	11.00	5
Dambuluoya	19.00	7	1.67	10	4.20	8	2.50	11	27.00	1	7.50	4	13.00	3	1.50	3	10.00	4	27.10	3
Pallepola	130.00	3	1.83	9	3.50	9	2.33	12	23.83	2	3.17	13	1.17	12	4.67	1	3.33	15	4.67	8
Wahakotte	130.33	2	1.33	13	4.33	7	4.67	5	5.33	12	1.67	15	5.00	5	-	-	5.33	14	3.33	14
Galewela	4.00	12	1.00	14	6.00	3	2.67	10	10.00	10	5.50	8	1.00	13	0.33	10	7.67	6	83.67	1
Inamaluwa	5.33	10	3.33	3	5.33	5	5.00	4	21.67	3	6.67	7	13.33	2	1.33	4	6.67	10	14.67	4
Dambulla	1.33	14	4.33	1	6.33	2	5.67	2	12.00	7	7.67	3	3.33	6	0.67	9	7.67	6	30.87	2
Hattotaamuna	1.00	15	0.33	15	2.00	12	4.00	8	5.33	12	5.00	9	1.00	13	-	-	7.33	8	4.33	11
Kimbissa	10.67	8	3.00	6	5.00	6	4.17	7	10.67	9	8.67	2	2.83	9	1.00	7	6.33	11	4.67	8
Ethabendiwewa	25.00	6	1.67	10	1.67	14	0.33	15	6.00	11	3.67	11	16.67	1	-	-	7.00	9	0.40	15
Makulugaswewa	4.33	11	2.00	7	2.33	11	4.33	6	5.33	12	4.33	10	2.67	10	-	-	10.67	3	4.67	8
Laggala-Pallegama	2.83	13	1.50	12	3.00	10	3.33	9	5.00	15	7.00	6	1.00	13	-	-	9.00	5	4.00	12
Others	67.00	-	18.50	-	5.33	-	7.83	-	16.67	-	10.23	-	17.50	-	45.05	-	6.97	-	24.17	-
Total	805.17	-	52.83	-	81.03	-	71.17	-	204.67	-	97.40	-	97.33	-	62.05	-	138.63	-	237.20	-

Source : ADA Office, Matale

Annex 01 - a : Average Extent under Vegetable Cultivation by Agricultural Instructors Division, Maha Season, (1998 - 2000) (Contd.)

Unit: Hectare

AI Range	Crop																			
	Capsicum		Snake Gourd		Ladies finger		Green Chillies		Beetroot		Dried Chillies		Kurakkan		Cucumber		Manioc		Maize	
	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank
Naula	2.33	6	7.67	7	7.67	10	12.00	2	2.00	6	15.67	4	4.67	8	3.00	8	22.00	6	25.67	11
Hettipola	1.17	8.00	9.50	3	14.33	3	-	-	-	-	10.00	7	6.67	5	-	-	10.00	12	245.00	1
Kongahawela	4.67	2	23.33	1	4.33	12	8.00	5	1.00	9	24.00	1	21.67	3	2.00	12	25.67	5	41.00	5
Thalakiriyagama	2.67	4	8.33	6	19.33	1	5.00	6	6.00	3	12.67	5	3.33	11	10.00	1	31.67	2	46.00	3
Dambuluoya	2.67	4	7.00	8	16.33	2	14.67	1	0.67	10	18.33	3	3.67	10	4.67	4	31.67	2	34.00	6
Pallepola	0.33	10	9.67	2	10.83	6	2.83	10	-	-	4.67	14	0.33	15	0.33	14	6.33	14	7.33	15
Wahakotte	-	-	2.00	12	3.33	14	11.33	3	0.67	10	8.33	12	2.00	13	2.00	12	11.00	10	15.33	14
Galewela	0.17	12	4.17	10	10.33	7	2.67	11	4.83	4	8.67	10	4.33	9	3.00	8	28.67	4	27.67	10
Inamaluwa	7.33	1	4.67	9	12.33	4	-	-	20.67	1	20.33	2	6.67	5	8.00	2	13.00	8	24.33	12
Dambulla	4.67	2	3.67	11	10.33	7	11.00	4	1.67	7	9.33	8	1.67	14	5.33	3	14.00	7	23.67	13
Hattotaamuna	-	-	0.67	15	11.67	5	1.67	12	0.00	-	12.33	6	44.33	1	3.33	6	5.00	15	54.33	2
Kimbissa	2.00	7	8.67	5	9.67	9	1.00	13	6.67	2	5.33	13	11.67	4	3.00	8	11.67	9	29.33	8
Ethabendiwewa	-	-	2.00	12	3.67	13	3.33	8	1.33	8	9.00	9	3.00	12	4.33	5	8.33	13	45.00	4
Makulugaswewa	0.33	10	9.33	4	4.67	11	3.00	9	4.33	5	4.33	15	6.00	7	3.33	6	37.00	1	29.17	9
Laggala-Pallegama	0.67	9	1.33	14	2.67	15	4.00	7	0.00	-	8.67	10	41.67	2	2.33	11	10.67	11	31.67	7
Others	12.50	-	6.67	-	8.00	-	38.33	-	1.55	-	12.67	-	10.67	-	8.17	-	79.33	-	16.83	-
Total	41.51	-	108.68	-	149.49	-	118.83	-	51.39	-	184.33	-	172.35	-	62.82	-	346.01	-	696.33	-

Source : ADA Office, Matale

Annex 01 - b : Average Extent under Vegetable Cultivation by Agricultural Instructors Division, Yala Season, (1998 - 2000)

Unit: Hectare

AI Range	Crop																			
	Beans		Tomato		Bitter Gourd		Luffa		Big Onion		Brinjal		Long Beans		Wing Beans		Pumpkin		Sweet Potato	
	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank
Inamaluwa	0.50	8	8.67	4	6.33	6	8.00	4	146.13	3	31.33	1	4.00	9	11.33	2	11.33	5	16.67	2
Dambulla	-	-	4.33	6	4.33	9	3.00	10	234.17	1	15.33	2	10.67	2	-	-	7.00	8	11.00	3
Dambuluoya	2.17	7	3.17	8	7.17	5	4.50	6	170.33	2	12.67	3	8.33	3	5.00	5	5.33	11	31.00	1
Yatawaththa	65.67	1	71.00	2	26.00	1	36.67	1	2.33	11	-	-	5.00	8	0.33	8	24.67	2	9.33	4
Kongahawela	-	-	0.83	14	3.00	11	0.33	15	98.33	5	10.00	6	2.33	12	3.00	6	6.67	9	3.33	6
Galewela	0.07	11	0.27	15	7.83	4	3.50	9	33.33	10	6.33	8	5.67	6	0.33	8	32.67	1	6.33	9
Thalakiriyagama	0.33	9	1.50	12	9.33	2	10.67	3	39.33	9	10.67	5	11.00	1	0.67	7.00	20.67	3	5.00	8
Ethabendiwewa	0.33	9	1.00	13	1.67	12	1.00	13	121.33	4	6.33	8	8.00	4	-	-	12.00	4	1.50	13
Kimbissa	-	-	3.17	8	4.67	8	1.83	11	85.00	6	9.67	7	6.67	5	6.67	3	7.67	7	3.33	9
Walawela	24.33	2	115.00	1	5.00	7	5.33	5	-	-	2.67	11	1.33	13	-	-	1.67	13	5.33	7
Naula	6.00	5	7.33	5	3.67	10	1.67	12	40.73	8	12.33	4	3.17	11	6.33	4.00	6.00	10	9.33	4
Elkaduwa	6.00	5	2.08	10	0.33	15	0.50	14	-	-	2.00	13	1.00	15	-	-	1.33	14	1.00	14
Mahawela	17.33	3	41.67	3	9.00	3	3.67	7	-	-	1.33	14	5.67	6	0.33	8.00	3.67	12	0.67	15
Makulugaswewa	-	-	1.83	11	0.83	14	3.67	7	41.00	7	3.50	10	4.00	9	-	-	9.33	6	3.00	12
Thanna	8.63	4	3.33	7	1.17	13	25.67	2	-	-	2.18	12	1.17	14	26.00	1.00	1.00	15	3.33	9
Others	58.20	-	67.00	-	16.40	-	15.17	-	16.32	-	44.50	-	23.33	-	5.83	-	28.17	-	26.93	-
Total	189.56	-	332.18	-	106.73	-	125.18	-	1028.33	-	170.84	-	101.34	-	65.82	-	179.18	-	137.08	-

Source : ADA Office, Matale

Annex 01 - b : Average Extent under Vegetable Cultivation by Agricultural Instructors Division, Yala Season, (1998 - 2000) (Contd.)

Unit: Hectare

AI Range	Crop																			
	Capsicum		Snake Gourd		Ladies Finger		Green Chillies		Red Onion		Beetroot		Chillies		Green Gram		Cucumber		Manioc	
	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank	Extent	Rank
Inamaluwa	22.67	1	5.67	6	19.00	3	11.33	5	1.13	11	37.00	1	19.33	6	1.00	7	6.33	6	11.33	2
Dambulla	4.67	5	4.00	9	13.67	7	36.00	1	4.33	2	3.00	7	7.33	9	1.33	6	10.67	3	2.33	11
Dambuluoya	9.83	2	8.83	3	14.33	6	16.83	4	2.67	3	1.33	10	19.67	5	0.33	10	9.67	4	15.33	1
Yatawaththa	6.83	4	7.33	4	18.33	4	21.00	3	1.67	8	2.33	9	-	-	-	-	39.00	1	7.33	5
Kongahawela	1.00	12	15.33	1	4.33	14	35.33	2	5.00	1	0.67	11	72.67	1	-	-	0.50	14	4.33	8
Galewela	1.17	11	7.33	4	29.67	2	2.33	13	1.83	7	13.00	3	33.00	3	2.33	4	24.83	2	3.33	9
Thalakiriyagama	3.00	8	4.27	8	11.00	10	5.67	8	2.50	6	6.67	5	38.00	2	2.17	5.00	7.67	5	9.67	3
Ethabendiwewa	4.00	6	2.33	11	8.83	11	4.00	9	1.50	9	6.33	6	7.33	9	0.50	8	6.33	6	4.67	7
Kimbissa	8.17	3	1.00	13	3.67	15	1.97	14	1.33	10	22.67	2	12.33	7	3.33	1	3.67	10	8.00	4
Walawela	1.33	10	1.67	12	8.33	12	3.33	10	-	-	0.33	13	1.33	11	-	-	6.00	8	3.00	10
Naula	2.17	9	5.17	7	6.00	13	9.33	6	2.67	3	3.00	7	28.33	4	3.00	2.00	2.67	11	6.33	6
Elkaduwa	0.25	15	-	-	109.08	1	0.50	15	-	-	0.17	14	-	-	-	-	0.83	13	1.33	12
Mahawela	3.67	7	2.67	10	12.33	9	7.33	7	0.33	12	0.67	11	-	-	-	-	4.33	9	0.67	15
Makulugaswewa	0.83	13	0.50	14	17.67	5	2.83	12	2.67	3	7.67	4	9.50	8	2.67	3.00	-	-	1.00	13
Thanna	0.83	13	14.00	2	12.67	8	3.00	11	-	-	-	-	-	-	0.50	8.00	1.00	12	1.00	13
Others	27.50	-	53.63	-	60.20	-	40.88	-	5.00	-	7.40	-	35.67	-	57.50	-	12.83	-	40.33	-
Total	97.92	-	133.73	-	349.11	-	201.66	-	32.63	-	112.24	-	284.49	-	74.66	-	136.33	-	119.98	-

Source : ADA Office, Matale

Annex 02 : Supply Areas by Districts

Central Province

Kandy District

Ambala
Delthota
Digana
Doragala
Galagedara
Galaha
Gampola
Hewaheta
Hunnasgiriya
Kadugannawa
Kandy
Kapuliyadda
Lunuwala
Marassana
Medamahanuwara
Menikhinna
Nawalapitiya
Pallekale
Pilimalalawa
Pujapitiya
Theldeniya
Tispane
Udispaththuwa
Ududumbara
Wanduruwa
Waththegama
Wawlana

Matale District

2 Kanuwa
40 Kanuwa
Akkara 50
Aluthgama
Aluthwewa
Aluvihare
Ambana
Ankumbura
Arangala
Eravula
Athubendiyaya
Athuparayaya

Matale District (cont.)

Babaragaswewa
Beliyankada
Bellanaoya
Bellankadawala
Dandubendiruppa
Dambulla
Dambuluhalmillewa
Dambuluoya
Deevilla
Dewahoowa
Digampathaha
Galewela
Galwetiyyawa
Habarana
Hettipola
Ibbankatuwa
Ihalaeravula
Inamaluwa
Janakaminipura
Kadawatha
Kalawellanda
Kalogahaela
Kaluganga
Kalundewa
Kendagolla
Kandalama
Kapuwasaththa
Katukeliyawa
Keeralessa
Kongahawela
Kosgahahinna
Kosgahalanda
Kotagoda
Kottawela
Kumbiyangoda
Lenadora
Madawala
Makulugaswewa
Mannanwatta
Matale
Melpitiya
Moragolla

Matale District (cont.)

Moragollagama
Nagalwewa
Nalanda
Naula
Nawagasheenna
Nayakumbura
Nikawatuna
Opalgala
Pahalawwa
Palleiura
Pallepola
Palutawa
Pelwehera
Pannamptiya
Pilihudugolla
Pohorawewa
Poranawewa
Puwakaththawala
Puwakpitiya
Seegiriya
Siyambalawa
Sumangalapura
Thennakoongama
Wahakotte
Walewala
Walgama
Walgamoya
Walgamwala
Walgamwewa
Welamitiyawa
Wewala
Yapagama
Yatawatta

Nuwara Eliya District

Adhikarigama
Dehipe
Hanguranketha
Hawa Eliya
Highforest
Kandapola
Kothmale
Mandaramnuwara

**Nuwara Eliya
District (contd.)**

Mathurata
Meepilimana
Padiyapelalla
Ragala
Rikillagaskada

**North West Province
Kurunegala District**

Alawwa
Ambanpola
Bingiriya
Bogahakumbura
Dambahera
Dolukanda
Galgamuwa
Hettipola
Hiripitiya
Indulangamakanda
Irudeniya
Kurunegala
Madahapola
Madatugama
Mawathagama
Melsiripura
Migalewa
Moragolla
Negama
Poilgahangoda
Polgahawela
Polpithigama
Ridiyagama
Siyabalangamuwa
Wariyapola

**North Central Province
Anuradhapura District**

Alagollawa
Anakatuwa
Anuradhapura
Avukana
Bogahaoya
Bulnewa
Dehipegama

**North Central Province
Anuradhapura District
(contd)**

Dehippawa
Diggannawa
Dikkannawa
Elagamuwa
Elayapaththuwa
Eppawala
Ethawewa
Galenbindunuwewa
Galkiriyagama
Galkulama
Galnewa
Gonapathirawa
Habarathtawe
Halmillewa
Horapola
Huruluwewa
Ihalagama
Ihalakumbura
Ipalogama
Kahatagasdigiliya
Kekirawa
Kalaththewa
Kalawewa
Kanadarawa
Kanakatawa
Katiyawa
Kawarakkulama
Kithulhitiyawa
Korasagolla
Leppawa
Mahaillumppalama
Mahavilachchiya
Manaketiya
Maradankadawala
Medagama
Medagamuwa
Medawachchiya
Megodawewa
Mihinthale
Moragaswewa
Nachchadoowa
Narangaswewa
Nelliyagama

**North Central Province
Anuradhapura District
(contd.)**

Nochchiyagama
Pilapitiya
Rajanganaya
Rambawa
Thalawa
Thambuththegama
Thiranagama
Thirappane
Uduruwa
Uluketawewa
Vilachchiya
Weerawewa

Polonnaruwa District

Aralaganvila
Bakamuna
Elahera
Hinguraggoda
Lankapura
Polonnaruwa
Thanthirimale

**Uva Province
Badulla District**

Bandarawela
Hasalaka
Keppetipola
Mahiyanganaya
Welimada

Moneragala District

Bibile
Ethimale
Maligawila
Moneragala
Wellawaya

**Western Province
Colombo District**

Colombo
Gampaha District
Gampaha
Katana
Mirigama
Veyangoda

Sabaragamuw Province

Kegalle District

Warakapola

Kegalle

Ratnapura District

Ehaliyagoda

Embilipitiya

Godakawela

Rathnapura

Southern Province

Hambantota District

Pannegamuwa

Tissa

Weeraketiya

Eastern Province

Amapara District

Dehiattakandiya

Kalmunai

Mahaoya

Siyabalanduwa

Warapitiya

North Western Province

Puttalam District

Kalpitiya

Mampur

Norochchole

Puttalam

Annex 03 :

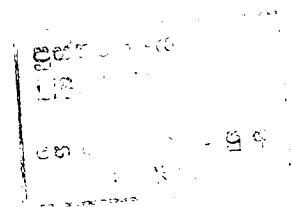
Major Commodities Supplied to the Dambulla Market by Districts, 20-26 January 2001

District	Commodity 01	Commodity 02	Commodity 03	Commodity 04	Commodity 05	Commodity 06	Commodity 07	Commodity 08	Commodity 09	Commodity 10
Matale	Beans	Tomato	Long Beans	Snake Gourd	Bitter Gourd	Winged Beans	Cucumber	Ladies Finger	Sweet Potato	Manioc
Colombo	Potaoto	Big Onion	Dried Chillies	Red Dhal	Garlic	Canned Fish	Dried Fish			
Rathnapura	Pumpkin	Cucumber	Innala	Manioc	Pepper	Nelli				
Gampaha	Ash Plantain	Jak Fruit	Mukunuwenna	Banana	Pineapple	Coconut				
Kandy	Cabbage	Beans	Carrot	Raddish	Tomatoe	Capsicum	Luffa	Bitter Gourd	Snake Gourd	Nivithi
Kegalle	Radish	Ash Plantain	Banana	Jak Fruit	Areca nut	Asamodagam Leaves				
Nuwara Eliya	Carrot	Cabbage	Leeks	Beetroot	Knolkhol	Raddish	Tomato	Luffa	Cabbage Leaves	Potatoes
Kurunegala	Knolkhol	Radish	Pumpkin	Innala	Ash Pumpkin	Green Chillies	Manioc	Lime	Banana	Coconut
Anuradhpura	Brinjal	Pumpkin	Cucumber	Long Beans	Bitter Gourd	Snake Gourd	Brinjal (Small)	Green Chillies	Lime	Banana
Polonnaruwa	Cucumber	Winged Beans	Snake Gourd	Bitter Gourd	Green Chilies	Lime	Rice	Dried Chillies	Asamodagam Leaves	
Hambantota	Long Beans	Cucumber	Snake Gourd	Kekiri	Banana					
Badulla	Beans	Cabbage	Knolkhol	Carrot	Beetroot	Tomato	Brinjal	Radish	Capsicum	Potatoes
Ampara	Ash Plantain	Pumpkin	Lime	Banana	Rice	Maize	Arecanut			
Moneragala	Pumpkin	Maize	Manioc	Lime	Banana	Orange				
Puttalam	Radish	Onion Leaves	Brinjal	Long Beans	Red Onion	Comadu				

Source: HARTI Field Survey

Demand Areas by Districts

Western Province	Gampola	North Western Province	North Central Province
Colombo	Galaha	Kurunegala	Anuradhapura
Mannin Market	Gelioya	Moragolla	Kekirawa
Moratuwa	Ankumbura	Rideegama	Anuradhapura
Kosgama	Menikhinna	Giriulla	Rajanganaya
Kottawa	Pujapitiya	Liyawala	Medawachchiya
Homagama	Alawathugoda	Kurunegala	Eppawela
Dehiwala	Nawalapitiya	Ibbagamuwa	Padaviya
Hanwella	Dunuvila	Hettipola	Nochchiyagama
Nugegoda	Waththegama	Galgamuwa	Kalawewa
Ratmalana	Peradeniya	Kuliyapitiya	Horowpathana
Padukka	Marassana	Pothuhera	Thalawa
Maharagama	Pilimathalawa	Melsiripura	Mihinthale
Avissawella	Thalathuoya	Kobaigane	Galnewa
Piliyandala		Hiripitiya	Kithulhitiyaya
	Nuwara Eliya	Dambadeniya	Palagala
Gampaha	Hatton	Badagamuwa	Thirappane
Kandana	Walapane	Gokarella	
Negambo	Padiyapelalla	Mawathagama	Polonnaruwa
Nittambuwa	Nuwara Eliya	Nagollagama	Hingurakgopda
Biyagama	Ginigathhena	Wariyapola	Pulathsigama
Gampaha	Kothmale	Makandura	Medirigiriya
Kadawatha	Pundaluoya	Bingiriya	Siripura
Kirindiwela		Dodangaslanda	Minneriya
Weyangoda	Matale	Nikaweratiya	Polonnaruwa
Yakkala	Naula		Manampitiya
Pasyala	Matale	Puttalama	Pansalgodalla
Minuwangoda	Dambulla	Maravila	Dimbulagala
Ragama	Galewala	Naththandiya	Aralaganvila
	Yatawatta	Chilaw	Thambola
Kaluthara	Raththota	Puttalam	Welioya
Beruwela	Pallepola	Kalpitiya	Diyabeduma
Horana	Nalanda	Anamaduwa	Girithale
Mathugama	Madawala	Dankotuwa	Ellewewa
Ingiriya	Kandalama	Katuneriya	Welikanda
Aluthgama	Akurana	Kakkapalliya	Kaduruwela
	Sigiriya	Madampe	Elahera
Central Province	Innamaluwa	Wennappuwa	Thanthirimale
Kandy	Hettipola		
Kandy	Ankumbura		
Madewela	Kapuwaththa		
Digana			
Theldeniya			



**Sabaragamuwa
Province**
Rathnapura
Godakawela
Ehaliyagoda
Embilipitiya

Kegalle
Kegalle
Warakapola
Mawanella
Rambukkana
Mawanella
Kotiyakumbura
Yatinyanthota
Ruwanwella

Uva Province
Badulla
Haliela
Hasalaka
Badulla

Eastern Province
Ampara
Nuwaragala
Girandurukotte
Uhana
Ampara

Batticalo
Eravur
Kiran
Valachchanei
Ottamawadi
Batticaloa

Trinco
Trinco
Kanthale
Kinniya
Muthur
Pulmude
Seruvavila
Ottumaduwa

North Province
Vavuniya
Vavuniya

Mannar
Mannar

South Province
Galle
Hikkaduwa
Neluwa
Elpitiya
Galle

Matara
Matara
Akuressa

WHOLESALE PRICE OF BEANS, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	7.95	13.59	-41.50	21.82	28.09	-22.32	37.25	49.75	-25.13	20.75	28.61	-27.47	21.28	21.97	-3.14
Feb	11.03	12.22	-9.74	23.58	23.93	-1.46	31.06	33.20	-6.45	18.85	18.14	3.91	33.03	36.43	-9.33
Mar	10.47	13.48	-22.33	18.85	21.25	-11.29	22.62	21.14	7.00	21.25	20.13	5.56	35.38	38.17	-7.31
Apr	21.95	26.58	-17.42	15.17	20.55	-26.18	24.33	25.49	-4.55	25.83	25.18	2.58	17.40	26.36	-33.99
May	24.46	25.60	-4.45	21.69	22.48	-3.51	46.05	45.84	0.46	37.19	36.46	2.00	27.65	27.85	-0.72
Jun	36.66	33.24	10.29	24.45	21.89	11.69	47.95	51.74	-7.33	34.75	36.17	-3.93	33.58	31.97	5.04
Jul	29.28	26.45	10.70	29.08	30.91	-5.92	27.75	32.74	-15.24	25.25	27.90	-9.50	31.94	40.50	-21.14
Aug	15.65	18.75	-16.53	26.75	28.78	-7.05	21.55	24.07	-10.47	31.17	35.13	-11.27	37.19	37.71	-1.38
Sep	17.34	18.93	-8.40	23.55	29.76	-20.87	20.32	17.11	18.76	30.83	34.17	-9.77	23.94	23.91	0.13
Oct	24.40	20.81	17.25	26.63	24.03	10.82	21.83	22.20	-1.67	30.25	34.91	-13.35	19.96	21.63	-7.72
Nov	12.42	12.17	2.05	24.58	26.03	-5.57	24.40	25.86	-5.65	19.85	20.71	-4.15	26.69	28.25	-5.52
Dec	24.30	27.14	-10.46	24.44	34.50	-29.17	25.30	34.63	-26.94	10.67	16.33	-34.66	23.33	31.35	-25.60
Annual Average	19.66	20.75	-5.24	23.38	26.02	-10.13	29.20	31.98	-8.69	25.55	27.82	-8.15	27.61	30.51	-9.49

Source: Marketing & Food Policy Division

WHOLESALE PRICE OF CARROT, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	15.00	15.51	-3.29	20.19	17.12	17.93	58.33	58.00	0.57	25.81	25.80	0.04	35.19	33.62	4.67
Feb	10.64	8.27	28.66	20.67	18.54	11.49	44.75	46.88	-4.54	30.58	33.40	-8.44	30.67	31.76	-3.43
Mar	8.83	9.29	-4.95	21.80	20.82	4.71	36.30	30.65	18.43	32.75	29.99	9.20	27.88	30.20	-7.68
Apr	14.38	14.76	-2.57	24.44	22.59	8.19	25.70	23.08	11.35	37.08	32.26	14.94	33.13	29.75	11.36
May	32.29	36.56	-11.68	31.19	28.61	9.02	30.65	26.63	15.10	31.94	36.56	-12.64	29.90	28.47	5.02
Jun	41.55	48.45	-14.24	39.57	38.51	2.75	41.70	42.08	-0.90	25.63	23.58	8.69	31.42	28.54	10.09
Jul	35.92	32.26	11.35	28.13	26.29	7.00	37.25	34.50	7.97	20.00	19.93	0.35	23.31	24.48	-4.78
Aug	23.90	19.76	20.95	17.63	16.00	10.19	26.70	26.89	-0.71	19.07	17.97	6.12	24.00	22.58	6.29
Sep	16.55	13.23	25.09	15.95	15.10	5.63	23.90	20.10	18.91	19.00	17.62	7.83	21.81	20.16	8.18
Oct	17.91	13.44	33.26	15.38	15.41	-0.19	20.56	17.30	18.84	17.83	19.69	-9.45	23.13	20.82	11.10
Nov	20.80	17.68	17.65	29.56	28.28	4.53	18.80	16.27	15.55	26.30	26.52	-0.83	22.75	21.28	6.91
Dec	21.83	18.10	20.61	43.69	47.56	-8.14	22.25	20.46	8.75	42.42	38.10	11.34	22.94	26.10	-12.11
Annual Average	21.63	20.61	4.97	25.68	24.57	4.53	32.24	30.24	6.63	27.37	26.79	2.17	27.18	26.48	2.63

WHOLESALE PRICE OF LEEKS, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	14.18	12.24	15.85	19.88	16.92	17.49	47.71	16.92	181.97	21.69	18.89	14.82	28.67	22.57	27.03
Feb	11.80	10.13	16.49	18.54	18.06	2.66	37.06	18.06	105.20	23.61	22.83	3.42	31.12	19.34	60.91
Mar	11.13	11.15	-0.18	15.85	13.89	14.11	29.17	13.89	110.01	19.75	18.74	5.39	31.17	20.18	54.46
Apr	14.50	13.22	9.68	13.33	13.39	-0.45	24.48	13.39	82.82	19.17	18.52	3.51	32.50	20.83	56.02
May	25.83	21.33	21.10	13.31	12.19	9.19	31.17	12.19	155.70	23.00	22.46	2.40	27.30	20.96	30.25
Jun	25.00	24.53	1.92	20.08	18.71	7.32	32.85	18.71	75.57	23.06	22.55	2.26	30.67	22.70	35.11
Jul	23.22	19.94	16.45	18.88	16.90	11.72	21.75	16.90	28.70	19.58	20.92	-6.41	17.52	21.34	-17.90
Aug	23.00	17.18	33.88	15.75	13.90	13.31	14.00	13.90	0.72	19.00	18.74	1.39	9.66	18.81	-48.64
Sep	20.70	15.04	37.63	13.78	12.32	11.85	14.50	12.32	17.69	18.33	17.02	7.70	6.83	16.38	-58.30
Oct	26.66	22.47	18.65	13.13	14.83	-11.46	18.94	14.83	27.71	14.83	16.48	-10.01	12.30	16.88	-27.13
Nov	25.22	23.02	9.56	28.94	29.28	-1.16	16.55	29.28	-43.48	20.04	20.85	-3.88	17.80	15.15	17.49
Dec	21.67	18.68	16.01	36.38	40.12	-9.33	14.88	40.12	-62.91	23.33	21.50	8.51	15.05	18.20	-17.31
Annual Average	20.24	17.41	16.26	18.99	18.38	3.33	25.26	18.38	37.44	20.45	19.96	2.46	21.72	19.45	11.68

WHOLESALE PRICE OF BEETROOT, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	21.53	16.26	32.41	22.28	21.03	5.94	-	50.13	-	35.94	40.42	-11.08	28.67	30.79	-6.89
Feb	14.25	13.14	8.45	23.00	19.82	16.04	27.13	40.00	-32.18	33.92	33.78	0.41	31.12	31.66	-1.71
Mar	9.27	11.47	-19.18	14.65	13.14	11.49	22.83	25.87	-11.75	25.83	26.47	-2.42	31.17	29.71	4.91
Apr	13.38	14.14	-5.37	10.96	9.69	13.11	20.98	20.68	1.45	22.02	26.31	-16.31	32.50	32.47	0.09
May	27.13	21.18	28.09	13.13	9.48	38.50	30.41	29.85	1.88	24.23	30.18	-19.72	27.30	30.80	-11.36
Jun	30.98	27.85	11.24	22.25	17.56	26.71	48.40	41.85	15.65	23.41	30.32	-22.79	30.67	37.07	-17.26
Jul	21.93	23.60	-7.08	25.88	23.85	8.51	24.06	30.08	-20.01	17.25	21.87	-21.12	17.52	22.91	-23.53
Aug	15.02	13.01	15.45	16.72	17.23	-2.96	13.08	16.45	-20.49	11.19	14.92	-25.00	9.66	13.01	-25.75
Sep	8.22	9.07	-9.37	13.00	13.56	-4.13	11.06	11.92	-7.21	10.19	13.68	-25.51	6.83	9.88	-30.87
Oct	13.69	10.56	29.64	13.63	17.55	-22.34	14.33	15.58	-8.02	7.67	11.82	-35.11	12.30	15.60	-21.15
Nov	18.26	16.95	7.73	36.50	35.58	2.59	21.25	23.30	-8.80	20.00	20.53	-2.58	17.80	20.75	-14.22
Dec	23.17	17.58	31.80	42.92	47.48	-9.61	29.38	34.48	-14.79	25.67	29.95	-14.29	-	26.73	-
Annual															
Average	18.07	16.23	11.30	21.24	20.50	3.64	23.90	28.35	-15.69	21.44	25.02	-14.30	22.32	25.12	-11.12

WHOLESALE PRICE OF KNOL KHOL , 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	7.33	9.52	-23.00	13.39	15.32	-12.60	15.63	26.98	-42.07	13.67	19.58	-30.18	13.11	15.13	-13.35
Feb	7.84	8.62	-9.05	12.40	14.93	-16.95	17.69	21.48	-17.64	13.00	17.09	-23.93	12.00	18.04	-33.48
Mar	6.00	8.32	-27.88	8.75	13.26	-34.01	13.18	19.18	-31.28	10.00	17.81	-43.85	12.13	21.73	-44.18
Apr	6.98	11.53	-39.46	7.21	9.30	-22.47	8.77	14.94	-41.30	13.17	18.00	-26.83	17.25	21.00	-17.86
May	-	14.53	-	5.13	10.95	-53.15	10.82	17.00	-36.35	16.28	20.55	-20.78	16.00	17.77	-9.96
Jun	19.28	19.10	0.94	13.75	15.29	-10.07	15.80	24.26	-34.87	17.18	20.11	-14.57	15.92	19.94	-20.16
Jul	11.22	14.45	-22.35	10.94	14.69	-25.53	12.50	18.30	-31.69	10.67	11.63	-8.25	12.54	16.11	-22.16
Aug	7.19	9.21	-21.93	7.57	11.88	-36.28	7.40	9.04	-18.14	8.67	10.35	-16.23	9.50	11.08	-14.26
Sep	6.15	7.46	-17.56	6.65	10.92	-39.10	7.67	9.02	-14.97	10.33	12.35	-16.36	9.16	10.46	-12.43
Oct	11.47	9.68	18.49	7.44	13.83	-46.20	9.60	12.21	-21.38	10.08	13.23	-23.81	11.14	15.56	-28.41
Nov	12.75	13.88	-8.14	12.00	18.38	-34.71	10.90	15.51	-29.72	12.60	20.61	-38.86	11.72	17.23	-31.98
Dec	13.38	14.53	-7.91	-	24.05	-	12.92	18.10	-28.62	15.88	21.38	-25.72	-	21.15	-
Annual															
Average	9.96	11.74	-15.11	9.57	14.40	-33.57	11.91	17.17	-30.65	12.63	16.89	-25.24	12.77	17.10	-25.32

WHOLESALE PRICE OF RADDIESH, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	3.21	3.30	-2.73	6.07	6.46	-6.04	13.00	13.25	-1.89	6.28	7.56	-16.93	6.40	7.30	-12.33
Feb	2.88	2.19	31.51	5.75	6.41	-10.30	10.10	8.78	15.03	6.83	6.77	0.89	6.50	7.91	-17.83
Mar	2.87	3.48	-17.53	5.58	6.06	-7.92	7.08	7.04	0.57	7.33	6.74	8.75	6.57	7.35	-10.61
Apr	5.20	6.38	-18.50	4.51	5.95	-24.20	5.90	5.87	0.51	5.83	8.04	-27.49	8.50	9.57	-11.18
May	11.50	12.17	-5.51	6.13	6.38	-3.92	6.95	7.67	-9.39	9.63	9.10	5.82	8.00	8.81	-9.19
Jun	12.12	12.27	-1.22	7.05	8.26	-14.65	11.65	14.86	-21.60	8.42	10.78	-21.89	9.00	9.72	-7.41
Jul	6.06	7.52	-19.41	6.51	5.94	9.60	7.83	9.95	-21.31	5.50	9.01	-38.96	7.50	9.05	-17.13
Aug	3.26	4.72	-30.93	5.51	4.47	23.27	5.12	5.81	-11.88	6.25	8.38	-25.42	6.88	8.23	-16.40
Sep	3.43	4.23	-18.91	5.25	4.30	22.09	5.37	5.69	-5.62	7.04	6.37	10.52	6.17	7.04	-12.36
Oct	6.86	5.68	20.77	6.32	6.55	-3.51	5.68	6.68	-14.97	6.00	7.38	-18.70	6.81	8.60	-20.81
Nov	8.31	8.50	-2.24	8.75	13.25	-33.96	6.38	8.24	-22.57	7.18	9.44	-23.94	8.28	9.45	-12.38
Dec	7.09	7.45	-4.83	11.00	16.86	-34.76	5.47	8.02	-31.80	7.29	9.25	-21.19	7.55	10.38	-27.31
Annual															
Average	6.07	6.49	-6.55	6.54	7.57	-13.71	7.54	8.49	-11.12	6.97	8.24	-15.42	7.35	8.62	-14.75

WHOLESALE PRICE OF CABBAGE, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	3.75	3.51	6.84	12.85	9.84	30.59	27.41	32.33	-15.22	10.31	9.90	4.14	15.03	12.77	17.70
Feb	3.42	2.29	49.34	12.34	10.16	21.46	26.25	28.25	-7.08	11.67	10.29	13.41	11.50	10.30	11.65
Mar	3.90	3.64	7.14	8.22	8.99	-8.57	22.48	21.14	6.34	14.50	11.17	29.81	11.39	12.00	-5.08
Apr	5.60	5.55	0.90	8.49	8.34	1.80	17.23	17.54	-1.77	17.25	15.95	8.15	19.58	16.23	20.64
May	22.16	17.15	29.21	10.57	9.56	10.56	21.05	18.27	15.22	22.06	23.40	-5.73	15.62	12.94	20.71
Jun	25.03	19.91	25.72	17.55	15.79	11.15	22.65	21.00	7.86	21.25	17.02	24.85	13.00	13.79	-5.73
Jul	17.85	14.51	23.02	10.25	9.10	12.64	21.83	18.93	15.32	18.25	14.51	25.78	15.10	13.23	14.13
Aug	15.19	11.75	29.28	12.50	7.77	60.88	13.57	13.35	1.65	17.33	17.31	0.12	13.91	12.61	10.31
Sep	9.18	10.05	-8.66	12.23	13.14	-6.93	13.39	11.83	13.19	19.21	16.82	14.21	16.94	14.66	15.55
Oct	12.71	10.84	17.25	11.00	11.20	-1.79	12.49	10.51	18.84	15.08	14.08	7.10	16.70	14.30	16.78
Nov	15.69	12.66	23.93	21.85	20.79	5.10	9.55	8.58	11.31	21.58	19.27	11.99	16.22	13.20	22.88
Dec	12.38	10.36	19.50	25.06	28.97	-13.49	10.65	9.39	13.42	20.33	17.30	17.51	16.46	15.71	4.77
Annual															
Average	12.24	10.19	20.16	13.58	12.80	6.03	18.21	17.59	3.52	17.40	15.59	11.66	15.12	13.48	12.19

WHOLESALE PRICE OF TOMATOE, 1996 - 2000, RS/Kg

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	12.31	13.34	-7.72	29.10	29.39	-0.99	28.31	29.35	-3.54	33.54	36.80	-8.86	12.83	14.90	-13.89
Feb	11.00	13.22	-16.79	28.92	37.67	-23.23	24.63	28.30	-12.97	35.08	41.39	-15.25	11.00	17.93	-38.65
Mar	13.20	17.85	-26.05	30.98	36.46	-15.03	29.47	31.00	-4.94	29.33	34.84	-15.82	27.13	35.92	-24.47
Apr	13.83	24.40	-43.32	20.17	29.15	-30.81	13.87	19.02	-27.08	38.00	30.90	22.98	18.33	34.39	-46.70
May	38.48	37.20	3.44	18.00	20.41	-11.81	21.32	24.18	-11.83	22.19	39.90	-44.39	25.30	29.79	-15.07
Jun	28.69	34.87	-17.72	28.20	34.75	-18.85	37.15	41.37	-10.20	8.53	11.75	-27.40	31.50	35.78	-11.96
Jul	21.68	24.75	-12.40	26.75	32.68	-18.15	35.17	36.65	-4.04	6.50	7.38	-11.92	26.88	36.47	-26.30
Aug	11.27	14.66	-23.12	20.69	28.84	-28.26	12.80	12.88	-0.62	10.92	14.60	-25.21	13.75	19.35	-28.94
Sep	5.57	6.17	-9.72	17.20	18.16	-5.29	19.52	20.96	-6.87	13.50	15.47	-12.73	11.69	10.28	13.72
Oct	22.43	18.03	24.40	18.38	21.78	-15.61	24.60	28.38	-13.32	18.75	28.63	-34.51	13.10	15.64	-16.24
Nov	27.08	28.86	-6.17	52.63	64.38	-18.25	15.40	14.43	6.72	36.55	45.09	-18.94	15.56	17.93	-13.22
Dec	22.17	21.73	2.02	71.25	73.05	-2.46	21.19	20.90	1.39	41.98	37.63	11.56	14.33	31.15	-54.00
Annual															
Average	18.98	21.26	-10.73	30.19	35.56	-15.10	23.62	25.62	-7.80	24.57	28.70	-14.38	18.45	24.96	-26.08

WHOLESALE PRICE OF LADIES FINGERS, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	5.40	4.55	18.68	11.31	12.86	-12.05	18.00	21.58	-16.59	9.69	12.31	-21.28	12.88	13.45	-4.24
Feb	7.69	6.89	11.61	14.83	18.84	-21.28	21.50	21.23	1.27	11.50	14.74	-21.98	15.50	16.37	-5.31
Mar	7.70	7.74	-0.52	10.28	15.48	-33.59	11.48	12.82	-10.45	14.25	18.74	-23.96	11.75	15.55	-24.44
Apr	7.20	10.80	-33.33	6.29	9.26	-32.07	4.67	8.72	-46.44	13.75	18.32	-24.95	7.21	13.50	-46.59
May	13.25	16.02	-17.29	7.26	8.99	-19.24	10.25	14.61	-29.84	14.83	23.75	-37.56	11.45	18.82	-39.16
Jun	18.91	23.37	-19.08	10.65	15.10	-29.47	12.65	18.49	-31.58	14.56	19.08	-23.69	13.33	18.21	-26.80
Jul	11.18	14.89	-24.92	11.28	16.03	-29.63	7.75	12.78	-39.36	8.00	10.08	-20.63	10.63	11.25	-5.51
Aug	5.44	7.94	-31.49	7.44	12.64	-41.14	4.34	9.48	-54.22	10.47	11.44	-8.48	9.88	10.20	-3.14
Sep	5.03	6.06	-17.00	6.08	9.42	-35.46	4.83	9.94	-51.41	11.58	16.78	-30.99	6.32	9.45	-33.12
Oct	12.72	12.07	5.39	7.63	15.28	-50.07	8.98	15.25	-41.11	11.50	16.75	-31.34	8.16	15.34	-46.81
Nov	10.04	14.38	-30.18	8.97	16.83	-46.70	10.15	15.12	-32.87	9.49	13.19	-28.05	11.03	18.75	-41.17
Dec	10.67	13.24	-19.41	8.97	17.47	-48.65	7.41	13.19	-43.82	5.37	13.40	-59.93	9.60	21.85	-56.09
Annual Average	9.60	11.50	-16.47	9.25	14.02	-34.01	10.17	14.43	-29.56	11.25	15.72	-28.42	10.64	15.23	-30.10

WHOLESALE PRICE OF BRINJALS, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	8.35	8.00	4.38	11.38	10.96	3.83	18.25	23.10	-21.00	15.69	15.62	0.45	13.31	12.61	5.55
Feb	4.07	4.80	-15.21	10.88	10.28	5.84	14.19	15.85	-10.47	11.25	12.58	-10.57	8.25	10.00	-17.50
Mar	2.57	3.90	-34.10	12.13	11.09	9.38	14.10	15.76	-10.53	6.38	8.96	-28.79	6.19	9.32	-33.58
Apr	4.80	8.60	-44.19	10.38	17.08	-39.23	7.97	15.94	-50.00	11.42	12.86	-11.20	7.33	11.10	-33.96
May	8.04	11.82	-31.98	9.16	14.28	-35.85	12.25	14.87	-17.62	19.88	27.34	-27.29	14.90	15.79	-5.64
Jun	14.18	19.22	-26.22	11.73	15.19	-22.78	14.75	22.67	-34.94	18.00	27.18	-33.77	16.20	25.10	-35.46
Jul	8.74	11.36	-23.06	11.56	13.94	-17.07	11.58	16.27	-28.83	10.58	20.51	-48.42	12.38	22.28	-44.43
Aug	7.08	8.27	-14.39	7.88	10.98	-28.23	7.53	11.47	-34.35	16.08	26.48	-39.27	13.31	16.66	-20.11
Sep	10.65	9.61	10.82	10.13	10.49	-3.43	8.16	12.57	-35.08	21.50	29.77	-27.78	11.81	16.37	-27.86
Oct	12.15	11.02	10.25	12.88	14.29	-9.87	10.51	14.74	-28.70	20.42	29.57	-30.94	14.31	21.82	-34.42
Nov	12.11	14.46	-16.25	15.69	16.93	-7.32	8.60	10.95	-21.46	14.70	19.73	-25.49	13.88	16.95	-18.11
Dec	15.29	12.54	21.93	19.31	21.87	-11.69	8.81	12.13	-27.37	21.83	21.30	2.49	14.10	18.83	-25.15
Annual Average	9.00	10.30	-12.60	11.93	13.95	-14.50	11.39	15.53	-26.63	15.64	20.99	-25.47	12.16	16.40	-25.84

WHOLESALE PRICE OF CAPSICUM, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	18.70	15.99	16.95	29.67	26.08	13.77	47.92	49.00	-2.20	33.69	29.81	13.02	27.89	23.36	19.39
Feb	22.69	18.72	21.21	28.75	23.16	24.14	47.19	46.63	1.20	34.33	35.11	-2.22	26.67	22.41	19.01
Mar	15.60	17.40	-10.34	19.95	21.02	-5.09	38.42	37.10	3.56	30.83	35.73	-13.71	21.88	24.80	-11.77
Apr	18.40	20.66	-10.94	17.33	23.10	-24.98	18.73	27.67	-32.31	30.75	36.24	-15.15	27.67	24.06	15.00
May	24.94	24.50	1.80	14.69	13.33	10.20	26.88	28.76	-6.54	34.00	37.04	-8.21	22.20	22.83	-2.76
Jun	27.54	26.89	2.42	23.20	22.99	0.91	40.20	43.00	-6.51	33.64	35.93	-6.37	33.75	33.27	1.44
Jul	27.55	31.09	-11.39	30.00	33.75	-11.11	36.07	45.49	-20.71	26.50	30.01	-11.70	25.63	35.11	-27.00
Aug	13.65	17.49	-21.96	22.75	30.63	-25.73	18.82	22.36	-15.83	19.42	26.05	-25.45	22.06	24.04	-8.24
Sep	12.55	10.47	19.87	17.53	19.52	-10.19	16.20	15.93	1.69	19.00	24.02	-20.90	19.81	23.00	-13.87
Oct	30.19	18.79	60.67	18.50	21.70	-14.75	25.66	26.89	-4.57	33.00	36.75	-10.20	35.81	36.40	-1.62
Nov	28.60	30.35	-5.77	39.44	34.55	14.15	25.45	23.23	9.56	36.61	34.56	5.93	37.25	31.68	17.58
Dec	25.67	24.43	5.08	43.17	45.06	-4.20	29.50	27.95	5.55	33.83	25.60	32.15	36.53	34.70	5.27
Annual															
Average	22.17	21.40	3.62	25.41	26.24	-3.15	30.92	32.83	-5.83	30.47	32.24	-5.49	28.10	27.97	0.44

WHOLESALE PRICE OF PUMKIN, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	4.50	4.26	5.63	5.95	6.19	-3.88	7.25	8.56	-15.30	7.94	9.00	-11.78	5.90	6.11	-3.44
Feb	4.20	3.97	5.79	6.25	6.88	-9.16	9.60	10.98	-12.57	8.42	9.80	-14.08	4.21	6.26	-32.75
Mar	3.97	3.90	1.79	10.55	10.90	-3.21	15.10	17.92	-15.74	11.83	10.36	14.19	5.32	5.94	-10.44
Apr	5.30	5.88	-9.86	10.07	11.99	-16.01	12.60	15.50	-18.71	10.13	11.14	-9.07	6.04	6.61	-8.62
May	7.02	6.92	1.45	8.65	11.15	-22.42	11.75	11.48	2.35	9.00	7.11	26.58	8.20	6.70	22.39
Jun	10.72	11.18	-4.11	8.45	9.92	-14.82	12.50	10.26	21.83	9.50	7.66	24.02	12.33	8.79	40.27
Jul	12.24	16.82	-27.23	10.50	8.25	27.27	13.75	13.75	0.00	12.13	8.84	37.22	14.53	15.72	-7.57
Aug	7.61	10.83	-29.73	9.28	8.19	13.31	10.83	15.35	-29.45	9.33	10.09	-7.53	11.54	12.90	-10.54
Sep	6.63	7.55	-12.19	8.03	7.70	4.29	9.98	12.21	-18.26	8.52	11.20	-23.93	13.94	14.14	-1.41
Oct	10.30	8.85	16.38	7.94	8.73	-9.05	11.09	11.55	-3.98	13.33	13.41	-0.60	13.25	12.70	4.33
Nov	7.25	9.20	-21.20	7.57	8.40	-9.88	8.08	6.91	16.93	9.95	10.89	-8.63	8.94	9.45	-5.40
Dec	8.67	6.10	42.13	6.79	7.61	-10.84	8.06	7.81	3.20	7.42	7.75	-4.26	11.10	9.68	14.62
Annual Average	7.37	7.96	-7.39	8.34	8.83	-5.56	10.88	11.86	-8.22	9.79	9.77	0.21	9.61	9.58	0.26

WHOLESALE PRICE OF CUCUMBER, 1996 - 2000,RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	4.35	7.00	-37.86	7.16	7.60	-5.79	7.10	13.38	-46.94	6.03	7.38	-18.29	6.90	9.15	-24.59
Feb	3.53	5.01	-29.54	8.21	9.36	-12.29	10.91	11.13	-1.98	5.50	8.01	-31.34	8.48	10.62	-20.15
Mar	2.37	4.36	-45.64	6.73	9.03	-25.47	5.18	8.12	-36.21	5.08	8.73	-41.81	5.38	8.19	-34.31
Apr	4.10	7.47	-45.11	5.92	8.54	-30.68	3.13	6.78	-53.83	5.63	9.31	-39.53	3.84	9.04	-57.52
May	11.45	11.29	1.42	6.38	8.54	-25.29	7.63	12.14	-37.15	9.63	13.26	-27.38	12.30	13.96	-11.89
Jun	13.48	18.48	-27.06	6.88	11.79	-41.65	11.00	16.37	-32.80	7.81	8.05	-2.98	9.33	14.79	-36.92
Jul	6.54	8.06	-18.86	9.10	9.60	-5.21	7.38	10.26	-28.07	5.20	7.50	-30.67	6.57	9.13	-28.04
Aug	3.58	3.76	-4.79	4.97	6.75	-26.37	3.33	6.06	-45.05	7.58	10.37	-26.90	5.25	7.75	-32.26
Sep	3.73	3.31	12.69	5.53	6.54	-15.44	4.38	6.75	-35.11	9.31	10.13	-8.09	5.94	8.39	-29.20
Oct	11.65	8.86	31.49	7.01	11.90	-41.09	7.10	11.20	-36.61	10.17	11.94	-14.82	5.78	9.80	-41.02
Nov	6.24	9.14	-31.73	9.35	14.33	-34.75	5.70	8.82	-35.37	5.42	9.22	-41.21	7.69	10.25	-24.98
Dec	7.42	7.22	2.77	6.94	12.49	-44.42	6.47	8.41	-23.07	4.33	7.05	-38.58	6.74	11.85	-43.16
Annual															
Average	6.54	7.83	-16.52	7.02	9.71	-27.72	6.61	9.95	-33.59	6.81	9.25	-26.37	7.02	10.24	-31.50

WHOLESALE PRICE OF BITTER GOURD, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	10.18	10.05	1.29	13.00	13.72	-5.25	21.75	24.25	-10.31	20.23	18.53	9.17	15.55	16.86	-7.77
Feb	9.15	7.89	15.97	14.08	17.25	-18.38	22.00	21.63	1.71	16.92	18.26	-7.34	13.95	20.16	-30.80
Mar	8.87	7.99	11.01	15.95	17.12	-6.83	20.67	19.92	3.77	19.00	17.98	5.67	15.10	20.29	-25.58
Apr	8.35	12.25	-31.84	14.33	15.68	-8.61	17.53	16.69	5.03	20.50	17.36	18.09	18.12	19.86	-8.76
May	16.88	17.51	-3.60	18.06	18.01	0.28	21.03	23.85	-11.82	23.25	22.06	5.39	26.00	23.93	8.65
Jun	21.50	21.80	-1.38	21.55	22.70	-5.07	25.75	29.31	-12.15	22.81	21.65	5.36	30.17	29.33	2.86
Jul	17.75	15.88	11.78	21.06	22.24	-5.31	20.75	21.41	-3.08	21.00	19.25	9.09	23.38	27.63	-15.38
Aug	13.56	11.25	20.53	16.19	18.05	-10.30	18.03	15.89	13.47	21.92	24.36	-10.02	25.19	26.19	-3.82
Sep	14.75	9.98	47.80	16.90	17.44	-3.10	20.20	15.49	30.41	23.00	26.10	-11.88	26.31	24.67	6.65
Oct	22.02	19.36	13.74	20.13	24.33	-17.26	26.11	19.18	36.13	31.00	28.22	9.85	30.94	28.64	8.03
Nov	20.58	21.85	-5.81	26.81	30.83	-13.04	24.28	23.43	3.63	31.60	31.96	-1.13	29.33	25.60	14.57
Dec	16.17	16.80	-3.75	25.19	32.35	-22.14	21.58	21.43	0.70	25.17	24.90	1.08	30.14	27.00	11.61
Annual Average	14.98	14.38	4.14	18.60	20.81	-10.60	21.64	21.04	2.85	23.03	22.55	2.13	23.68	24.18	-2.06

WHOLESALE PRICE OF SNAKE GOURD, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	5.33	6.30	-15.40	10.53	9.52	10.61	18.85	22.33	-15.58	11.19	16.36	-31.60	12.10	15.05	-19.60
Feb	6.29	5.76	9.20	11.29	13.41	-15.81	19.38	21.03	-7.85	12.67	16.07	-21.16	14.08	17.73	-20.59
Mar	3.70	5.73	-35.43	8.45	13.48	-37.31	10.30	13.96	-26.22	10.33	13.39	-22.85	9.88	16.56	-40.34
Apr	3.75	8.55	-56.14	5.54	9.71	-42.95	3.07	9.85	-68.83	9.33	12.81	-27.17	6.63	14.11	-53.01
May	12.26	13.92	-11.93	7.79	11.43	-31.85	9.45	14.86	-36.41	8.81	18.08	-51.27	10.10	13.76	-26.60
Jun	13.01	17.16	-24.18	8.25	12.78	-35.45	12.85	17.92	-28.29	9.76	11.93	-18.19	8.00	13.64	-41.35
Jul	7.39	11.82	-37.48	9.19	10.20	-9.90	7.04	10.98	-35.88	5.42	8.58	-36.83	6.57	10.73	-38.77
Aug	4.25	7.34	-42.10	6.16	10.19	-39.55	4.74	8.06	-41.19	6.50	10.24	-36.52	5.94	9.36	-36.54
Sep	4.53	5.56	-18.53	6.18	10.09	-38.75	5.32	8.41	-36.74	8.08	10.10	-20.00	5.69	8.51	-33.14
Oct	12.29	10.02	22.65	7.82	14.40	-45.69	7.91	11.31	-30.06	7.63	15.35	-50.29	7.53	12.18	-38.18
Nov	10.55	13.25	-20.38	16.81	19.85	-15.31	7.03	9.29	-24.33	10.50	14.71	-28.62	6.97	10.63	-34.43
Dec	9.71	9.71	-	17.56	21.92	-19.88	8.50	10.22	-16.83	12.00	14.80	-18.92	7.25	19.88	-63.53
Annual															
Average	7.76	9.59	-19.16	9.63	13.08	-26.38	9.54	13.19	-27.67	9.35	13.54	-30.91	8.40	13.51	-37.87

WHOLESALE PRICE OF LUFFA, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	7.87	9.27	-15.10	13.44	10.98	22.40	17.75	13.12	35.29	10.75	14.73	-27.02	11.85	13.94	-14.99
Feb	9.27	8.82	5.10	17.25	18.89	-8.68	18.13	18.75	-3.31	14.17	12.20	16.15	16.58	19.47	-14.84
Mar	10.54	8.80	19.77	18.77	18.31	2.51	18.40	19.46	-5.45	16.00	16.70	-4.19	18.00	22.78	-20.98
Apr	9.50	11.70	-18.80	14.00	16.01	-12.55	8.70	15.48	-43.80	16.33	18.78	-13.05	18.28	23.92	-23.58
May	14.46	18.02	-19.76	16.56	16.69	-0.78	19.37	19.51	-0.72	22.06	20.06	9.97	25.73	23.00	11.87
Jun	20.29	22.99	-11.74	17.85	18.81	-5.10	23.10	25.94	-10.95	21.63	19.42	11.38	25.92	28.96	-10.50
Jul	15.90	15.65	1.60	16.44	13.79	19.22	18.08	19.30	-6.32	19.00	17.50	8.57	24.81	27.90	-11.08
Aug	5.88	10.33	-43.08	13.25	12.53	5.75	15.60	15.46	0.91	17.19	18.12	-5.13	19.56	24.49	-20.13
Sep	4.88	7.76	-37.11	10.63	13.37	-20.49	12.83	15.02	-14.58	18.83	19.43	-3.09	11.38	19.62	-42.00
Oct	15.23	11.77	29.40	13.38	17.83	-24.96	17.91	17.95	-0.22	23.58	21.23	11.07	12.63	24.02	-47.42
Nov	13.01	14.17	-8.19	18.58	19.83	-6.30	14.20	15.98	-11.14	11.70	19.90	-41.21	18.31	17.13	6.89
Dec	12.36	10.60	16.60	17.19	11.90	44.43	12.53	17.27	-27.45	9.92	14.23	-30.29	15.47	23.55	-34.31
Annual															
Average	11.60	12.49	-7.13	15.61	15.75	-0.85	16.38	17.77	-7.80	16.76	17.69	-5.25	18.21	22.40	-18.70

WHOLESALE PRICE OF LONG BEANS, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	3.46	6.83	-49.34	10.94	14.31	-23.55	18.63	26.00	-28.35	14.19	16.22	-12.52	12.94	14.39	-10.08
Feb	4.39	5.51	-20.33	12.33	16.46	-25.09	16.88	20.60	-18.06	10.83	13.46	-19.54	15.17	16.99	-10.71
Mar	4.97	7.24	-31.35	12.35	16.82	-26.58	17.50	18.96	-7.70	13.42	16.33	-17.82	14.13	18.80	-24.84
Apr	7.07	14.35	-50.73	8.79	17.09	-48.57	9.67	14.37	-32.71	13.75	19.12	-28.09	9.32	15.94	-41.53
May	14.56	16.13	-9.73	10.47	13.85	-24.40	19.28	23.59	-18.27	19.81	23.68	-16.34	17.50	20.21	-13.41
Jun	18.81	21.79	-13.68	11.35	16.19	-29.89	22.20	28.40	-21.83	18.63	21.74	-14.31	18.58	21.67	-14.26
Jul	10.41	14.79	-29.61	13.88	18.05	-23.10	12.92	19.75	-34.58	15.58	17.49	-10.92	16.25	20.50	-20.73
Aug	5.52	8.80	-37.27	11.81	15.05	-21.53	9.63	12.55	-23.27	16.00	18.95	-15.57	16.44	19.87	-17.26
Sep	5.98	8.06	-25.81	11.03	14.11	-21.83	11.84	13.13	-9.82	16.83	22.30	-24.53	13.13	16.19	-18.90
Oct	14.15	12.21	15.89	13.00	18.28	-28.88	13.29	16.31	-18.52	18.33	25.78	-28.90	15.25	19.68	-22.51
Nov	10.53	10.86	-3.04	17.91	21.15	-15.32	19.25	19.61	-1.84	13.65	18.60	-26.61	16.75	20.81	-19.51
Dec	13.54	14.74	-8.14	14.19	22.19	-36.06	16.25	21.85	-25.63	8.61	12.73	-32.36	16.00	20.33	-21.30
Annual															
Average	9.45	11.78	-19.76	12.34	16.96	-27.27	15.61	19.59	-20.32	14.97	18.87	-20.66	15.12	18.78	-19.49

WHOLESALE PRICE OF ASH PLANATIONS, 1996 -2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	14.60	15.26	-4.33	17.88	21.89	-18.32	24.38	31.65	-22.97	21.88	28.31	-22.71	21.35	24.34	-12.28
Feb	15.74	17.94	-12.28	18.61	24.71	-24.69	25.44	29.35	-13.32	20.00	23.55	-15.07	21.00	24.59	-14.60
Mar	14.18	16.56	-14.37	17.42	23.80	-26.81	23.28	27.69	-15.93	17.25	22.90	-24.67	19.63	21.99	-10.73
Apr	16.04	17.62	-8.97	17.22	21.56	-20.13	17.13	22.87	-25.10	18.08	23.04	-21.53	16.92	18.91	-10.52
May	16.52	17.13	-3.56	15.78	20.86	-24.35	21.22	26.25	-19.16	19.25	20.03	-3.89	14.80	16.23	-8.81
Jun	17.95	19.94	-9.98	16.85	23.13	-27.15	22.40	28.28	-20.79	18.75	18.49	1.41	15.08	16.71	-9.75
Jul	16.53	17.30	-4.45	18.06	23.28	-22.42	22.17	28.15	-21.24	18.17	17.51	3.77	16.50	16.28	1.35
Aug	13.67	15.59	-12.32	18.33	22.17	-17.32	22.08	28.29	-21.95	17.58	18.31	-3.99	15.81	16.62	-4.87
Sep	14.30	15.13	-5.49	17.67	21.10	-16.26	21.91	28.21	-22.33	17.58	19.48	-9.75	15.44	17.12	-9.81
Oct	18.99	20.36	-6.73	17.75	26.23	-32.33	24.20	29.98	-19.28	19.08	23.54	-18.95	21.00	20.86	0.67
Nov	17.77	23.65	-24.86	20.91	28.79	-27.37	22.80	28.33	-19.52	21.15	26.71	-20.82	20.44	21.08	-3.04
Dec	15.33	22.27	-31.16	24.56	31.81	-22.78	22.69	28.36	-19.99	22.50	26.20	-14.12	20.72	23.30	-11.07
Annual Average	15.97	18.23	-12.40	18.42	24.11	-23.60	22.48	28.12	-20.07	19.27	22.34	-13.73	18.22	19.84	-8.13

WHOLESALE PRICES OF GREEN CHILLIES, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	19.03	21.16	-10.07	13.50	15.75	-14.29	19.94	25.03	-20.34	19.88	22.04	-9.80	17.17	19.00	-9.63
Feb	16.21	17.23	-5.92	19.67	20.47	-3.91	28.25	34.70	-18.59	22.33	26.59	-16.02	19.92	22.16	-10.11
Mar	15.34	14.62	4.92	17.35	22.04	-21.28	42.43	45.80	-7.36	28.33	31.64	-10.46	21.15	18.80	12.50
Apr	19.47	16.80	15.89	15.67	27.89	-43.81	34.33	44.77	-23.32	24.25	38.38	-36.82	26.08	25.40	2.68
May	18.64	22.42	-16.86	12.88	18.94	-32.00	31.00	41.22	-24.79	28.19	27.26	3.41	45.35	50.63	-10.43
Jun	47.32	57.94	-18.33	35.95	35.50	1.27	48.60	60.95	-20.26	32.44	32.67	-0.70	83.00	89.19	-6.94
Jul	33.03	39.93	-17.28	26.06	38.33	-32.01	37.25	42.45	-12.25	20.48	22.08	-7.25	30.00	38.01	-21.07
Aug	17.53	16.51	6.18	14.88	17.06	-12.78	17.88	19.96	-10.42	20.75	24.50	-15.31	21.13	20.42	3.48
Sep	14.20	11.27	26.00	19.70	18.78	4.90	18.94	18.98	-0.21	30.92	36.75	-15.86	19.94	15.95	25.02
Oct	18.12	14.60	24.11	20.00	20.90	-4.31	20.88	24.04	-13.14	50.42	61.94	-18.60	40.50	38.88	4.17
Nov	33.21	33.23	-0.06	38.75	39.13	-0.97	24.90	32.04	-22.28	26.40	43.95	-39.93	37.06	33.33	11.19
Dec	22.82	25.93	-11.99	55.56	54.10	2.70	26.06	31.84	-18.15	29.75	32.50	-8.46	38.78	22.87	69.57
Annual Average	22.91	24.30	-5.73	24.16	27.41	-11.83	29.21	35.15	-16.91	27.85	33.36	-16.53	33.34	32.89	1.38

WHOLESALE PRICE OF LIME, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	16.32	18.69	-12.68	8.71	11.05	-21.18	20.25	29.20	-30.65	11.44	11.55	-0.95	12.64	14.09	-10.29
Feb	14.23	14.87	-4.30	7.46	22.06	-66.18	17.13	21.91	-21.82	8.83	9.55	-7.54	9.07	8.73	3.89
Mar	14.40	12.61	14.20	12.58	10.52	19.58	26.52	24.38	8.78	7.50	8.28	-9.42	8.07	7.04	14.63
Apr	25.25	16.24	55.48	24.56	26.24	-6.40	70.00	65.42	7.00	6.00	6.17	-2.76	8.32	6.97	19.37
May	27.69	25.59	8.21	22.00	30.24	-27.25	78.58	114.06	-31.11	7.38	5.19	42.20	16.70	13.20	26.52
Jun	26.93	33.52	-19.66	20.45	32.57	-37.21	98.44	122.78	-19.82	9.44	6.11	54.50	31.75	32.36	-1.89
Jul	17.22	21.80	-21.01	14.44	19.24	-24.95	70.42	89.03	-20.90	15.17	16.64	-8.83	43.81	47.22	-7.22
Aug	27.81	28.28	-1.66	9.56	10.25	-6.73	20.97	36.68	-42.83	32.00	34.66	-7.67	72.94	74.90	-2.62
Sep	33.90	44.60	-23.99	11.50	10.20	12.75	22.85	23.54	-2.93	66.67	91.39	-27.05	98.13	117.41	-16.42
Oct	45.03	67.06	-32.85	14.00	15.55	-9.97	28.13	29.74	-5.41	77.08	91.39	-15.66	56.44	70.60	-20.06
Nov	35.33	52.95	-33.28	20.25	24.00	-15.63	19.70	24.02	-17.99	38.70	54.53	-29.03	24.94	32.69	-23.71
Dec	15.67	21.25	-26.26	24.88	35.22	-29.37	13.56	14.76	-8.13	16.00	25.06	-36.15	40.69	16.27	150.09
Annual Average	24.98	29.79	-16.14	15.87	20.60	-22.96	40.55	49.63	-18.30	24.68	30.04	-17.84	35.29	36.79	-4.07

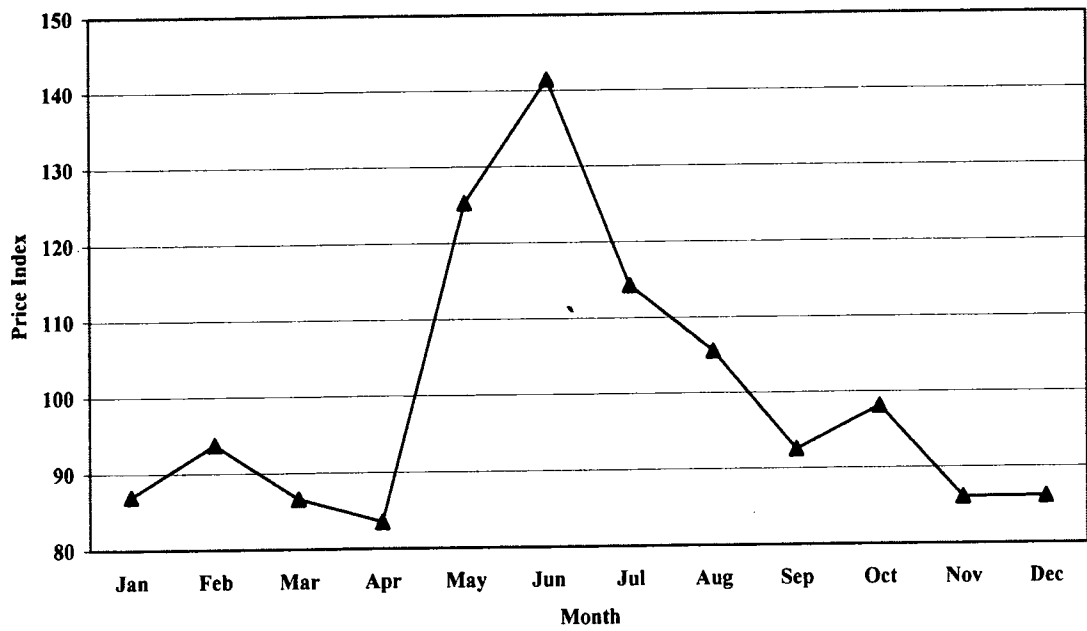
WHOLESALE PRICE OF SWEET POTATOES, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	7.23	7.43	-2.69	7.72	7.82	-1.28	12.41	16.25	-23.63	8.69	9.37	-7.26	10.15	10.10	0.50
Feb	6.75	5.43	24.31	7.17	6.92	3.61	12.13	13.22	-8.25	8.75	10.04	-12.85	6.80	11.00	-38.18
Mar	5.86	5.40	8.52	6.60	6.75	-2.22	11.33	9.56	18.51	7.46	8.17	-8.69	6.38	9.02	-29.27
Apr	6.82	6.31	8.08	6.38	6.41	-0.47	8.98	8.27	8.59	7.50	10.45	-28.23	6.37	7.93	-19.67
May	8.33	7.09	17.49	6.85	6.40	7.03	8.96	8.40	6.67	8.38	8.23	1.82	7.38	8.34	-11.51
Jun	9.65	9.60	0.52	7.15	7.53	-5.05	10.85	9.62	12.79	8.88	8.57	3.62	7.75	9.58	-19.10
Jul	7.88	9.82	-19.76	7.58	8.63	-12.17	9.04	9.21	-1.85	8.50	9.06	-6.18	9.72	10.99	-11.56
Aug	6.36	8.61	-26.13	7.63	9.08	-15.97	8.16	7.80	4.62	8.50	9.67	-12.10	10.38	10.29	0.87
Sep	7.65	7.59	0.79	8.23	8.67	-5.07	7.54	7.49	0.67	8.54	9.89	-13.65	8.82	8.61	2.44
Oct	8.79	7.89	11.41	8.13	9.00	-9.67	7.15	8.17	-12.48	7.96	9.71	-18.02	8.77	11.36	-22.80
Nov	8.76	8.99	-2.56	12.94	10.17	27.24	7.60	7.28	4.40	8.60	11.17	-23.01	9.13	10.25	-10.93
Dec	8.14	8.88	-8.33	11.88	13.77	-13.76	7.72	9.45	-18.31	10.67	11.12	-4.05	8.95	11.70	-23.50
Annual															
Average	7.69	7.75	-0.88	8.19	8.43	-2.86	9.32	9.56	-2.48	8.54	9.62	-11.28	8.38	9.93	-15.58

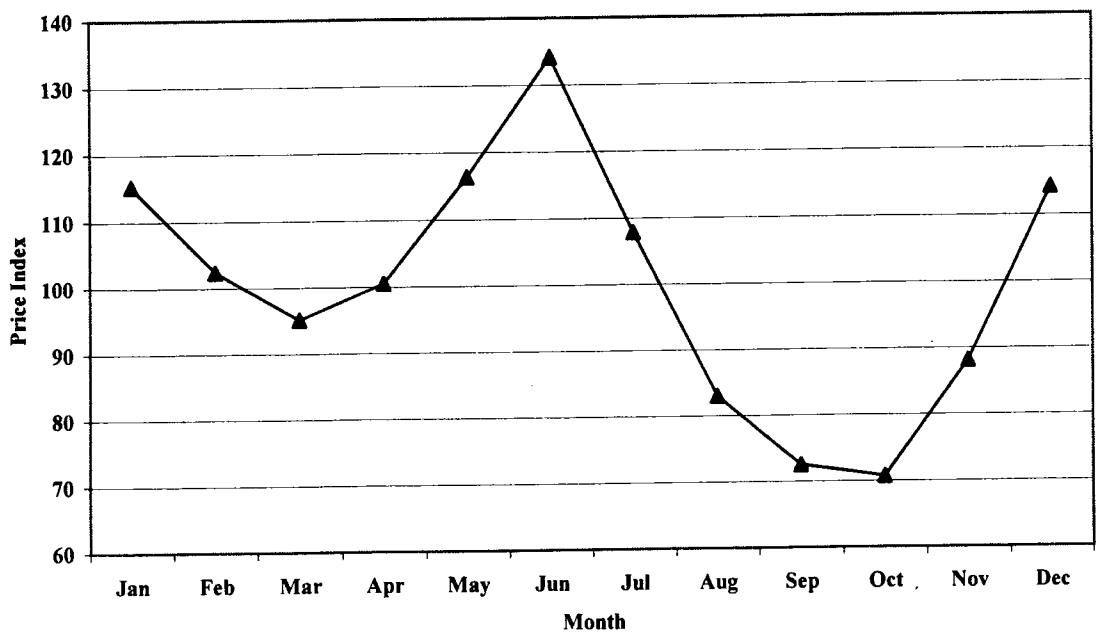
WHOLESALE PRICE OF MANIOC, 1996 - 2000, RS/KG

	1996			1997			1998			1999			2000		
Month	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)	Dambulla	Colombo	Change (%)
Jan	4.89	4.09	19.56	5.77	5.89	-2.04	4.78	6.83	-30.01	4.82	4.52	6.64	4.63	6.02	-23.09
Feb	4.25	3.26	30.37	6.25	5.52	13.22	5.47	5.89	-7.13	4.71	4.65	1.29	4.31	6.38	-32.45
Mar	5.00	3.39	47.49	-	5.81	-	5.09	4.74	7.38	4.50	5.01	-10.18	4.44	5.74	-22.65
Apr	5.00	4.34	15.21	-	5.86	-	3.79	5.13	-26.12	4.92	5.86	-16.04	4.29	5.29	-18.90
May	5.38	5.17	4.06	5.00	5.86	-14.68	4.50	5.04	-10.71	6.31	6.57	-3.96	5.53	6.83	-19.03
Jun	7.08	6.75	4.89	5.33	6.26	-14.86	5.25	5.22	0.57	6.94	6.79	2.21	5.54	6.81	-18.65
Jul	5.35	6.34	-15.62	5.61	6.04	-7.12	4.38	4.75	-7.79	7.25	7.34	-1.23	5.62	6.95	-19.14
Aug	4.95	5.48	-9.67	4.50	5.75	-21.74	4.38	4.57	-4.16	6.42	7.85	-18.22	4.63	5.81	-20.31
Sep	6.31	4.77	32.29	4.34	5.67	-23.46	4.35	4.54	-4.19	6.63	6.81	-2.64	5.22	5.05	3.37
Oct	6.90	5.60	23.21		5.92		4.58	4.96	-7.66	4.24	7.04	-39.77	5.16	5.61	-8.02
Nov	6.65	6.63	0.30	4.72	6.50	-27.38	4.57	4.73	-3.38	4.63	7.09	-34.70	5.04	4.55	10.77
Dec	6.47	6.77	-4.43	3.79	7.26	-47.75	4.47	4.41	1.36	4.54	6.37	-28.73	5.10	4.55	12.09
Annual Average	5.69	5.22	9.01	5.03	6.03	-16.48	4.63	5.07	-8.55	5.49	6.33	-13.16	4.96	5.80	-14.48

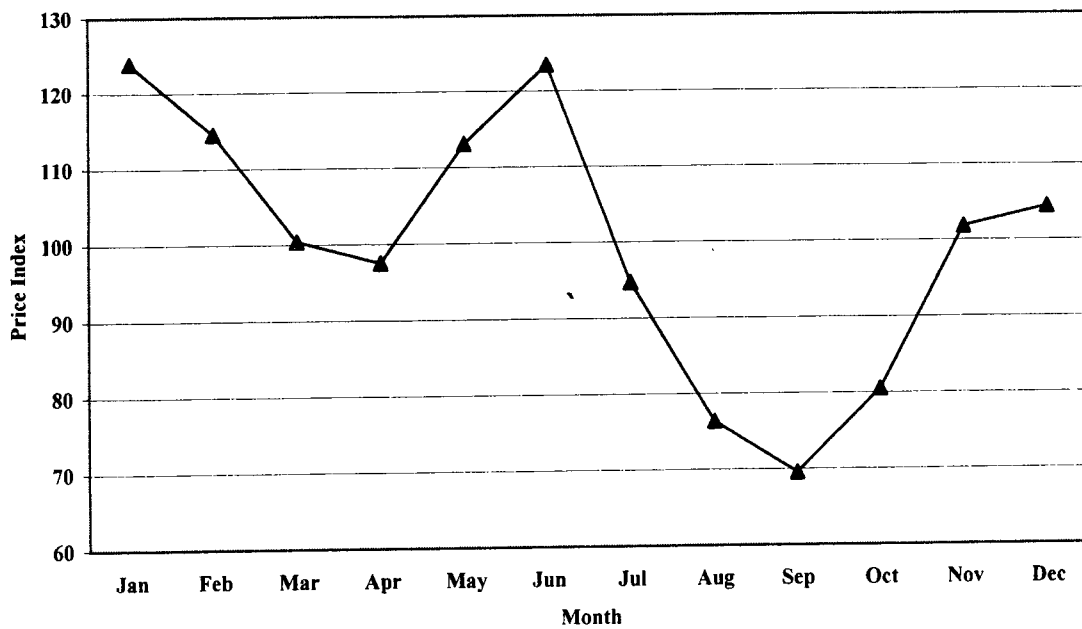
Price Fluctuation in the Dambulla Market - Beans



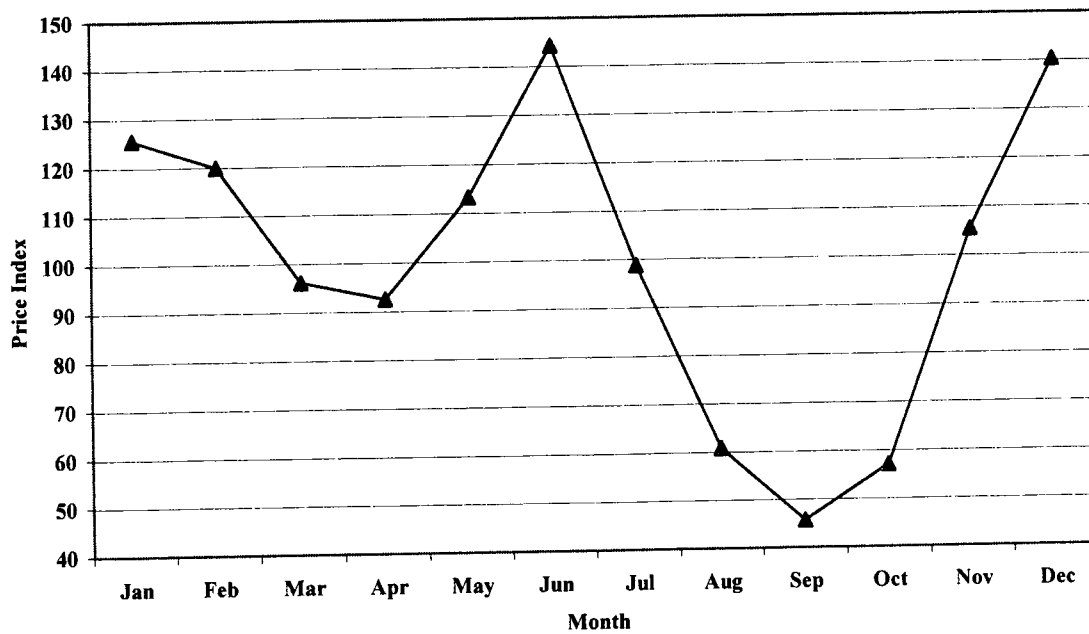
Price Fluctuation in the Dambulla Market - Carrot



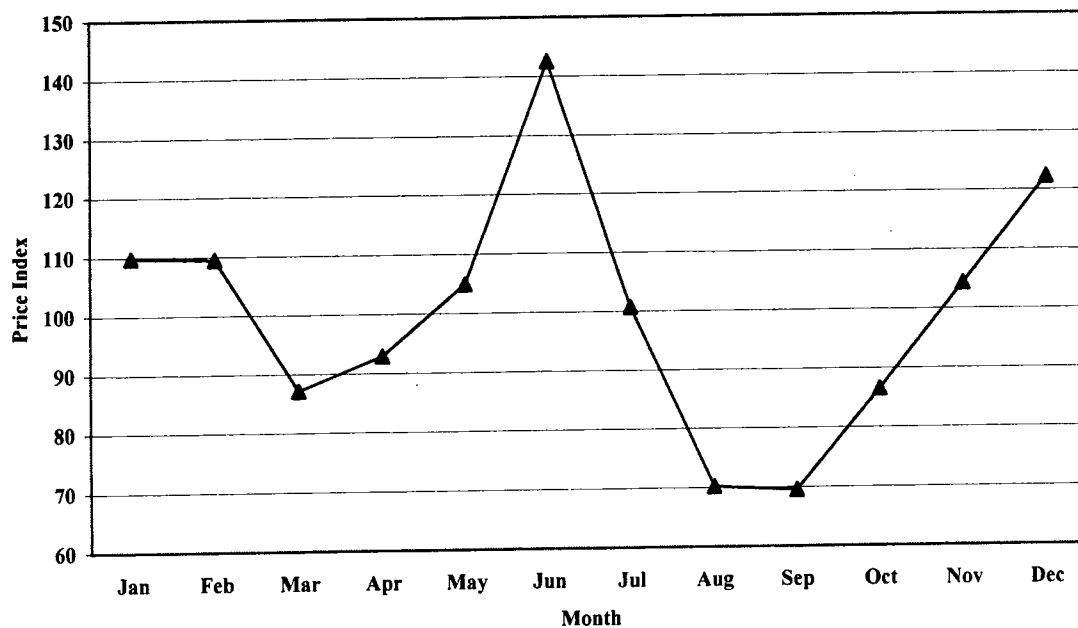
Price Fluctuation in the Dambulla Market - Leeks



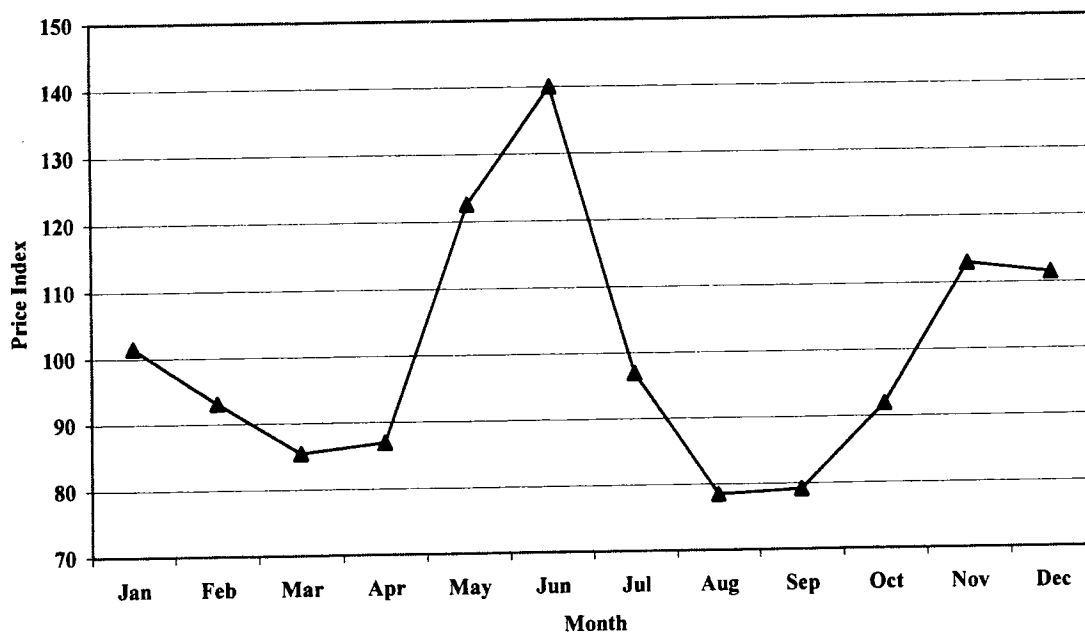
Price Fluctuation in the Dambulla Market - Beetroot



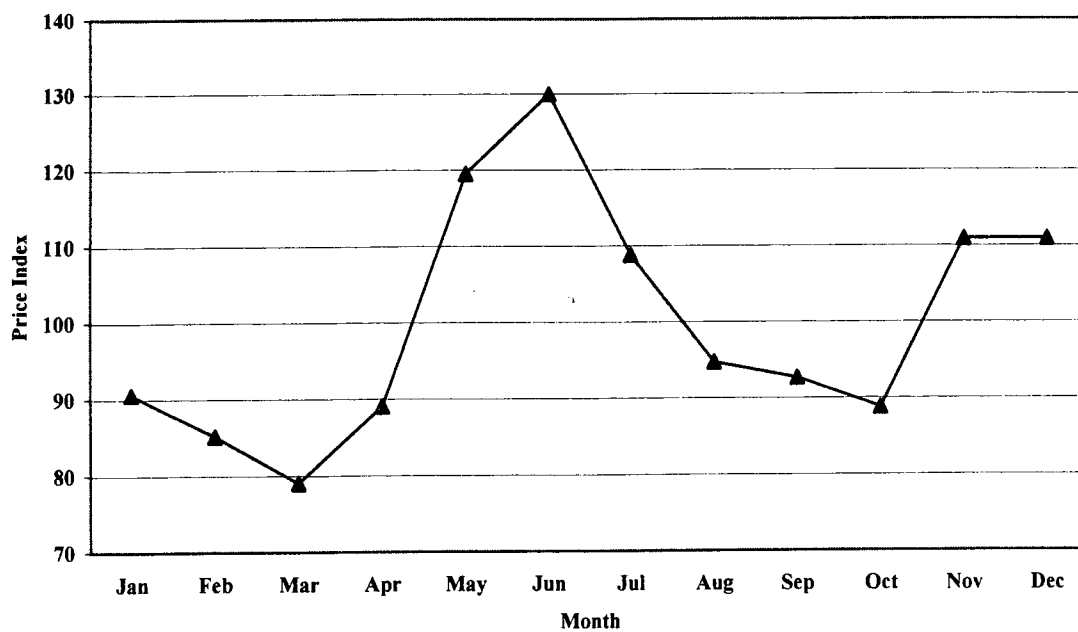
Price Fluctuation in the Dambulla Market - Knol khol



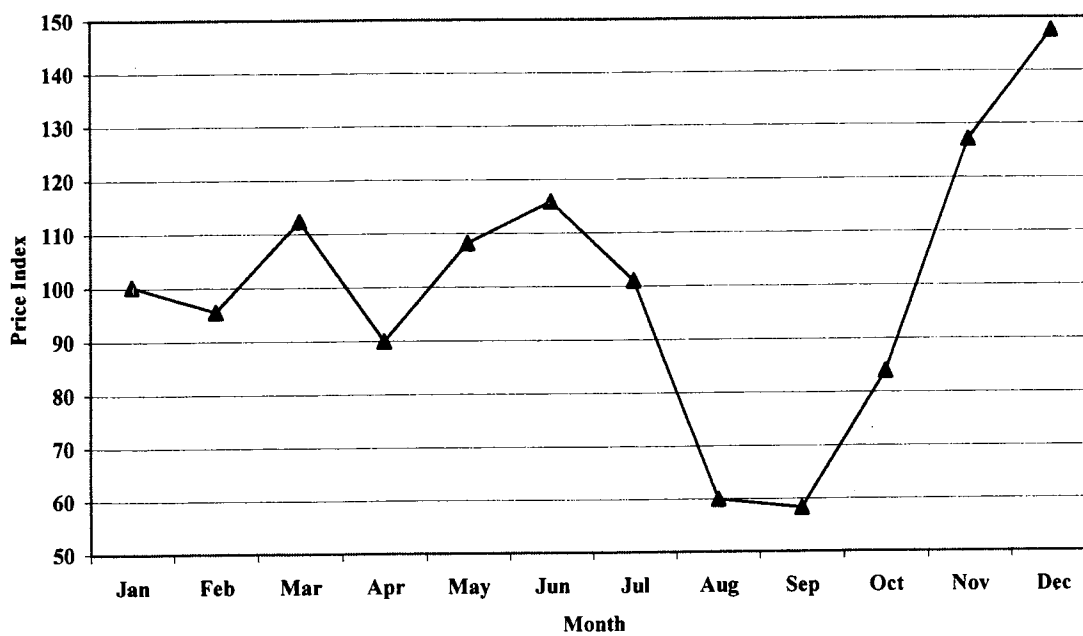
Price Fluctuation in the Dambulla Market - Raddish



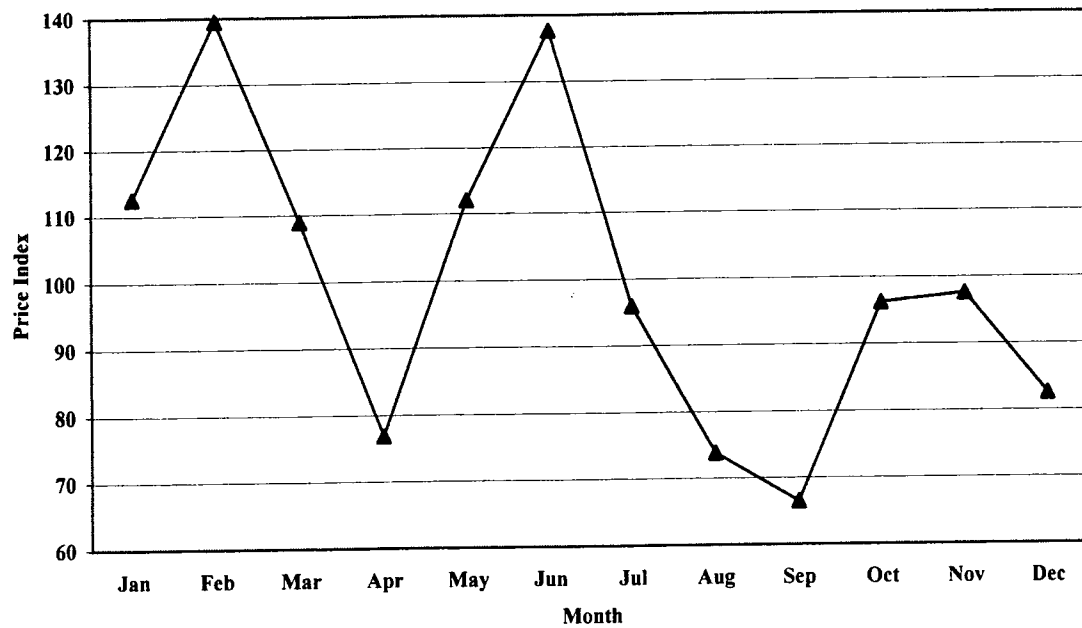
Price Fluctuation in the Dambulla Market - Cabbage



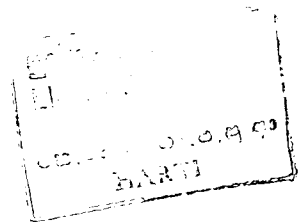
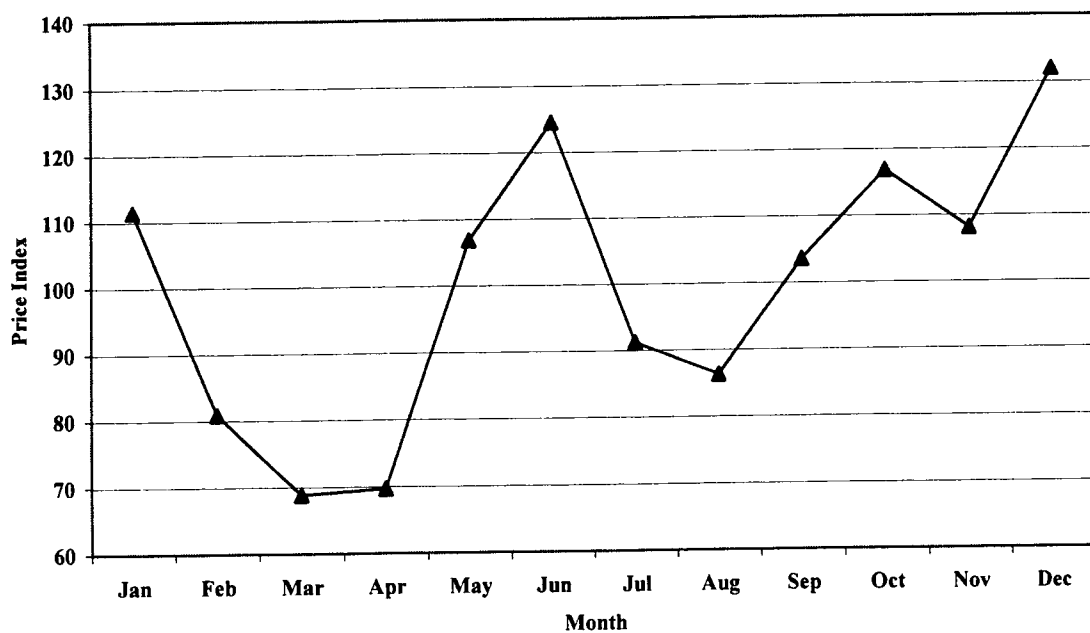
Price Fluctuation in the Dambulla Market - Tomato



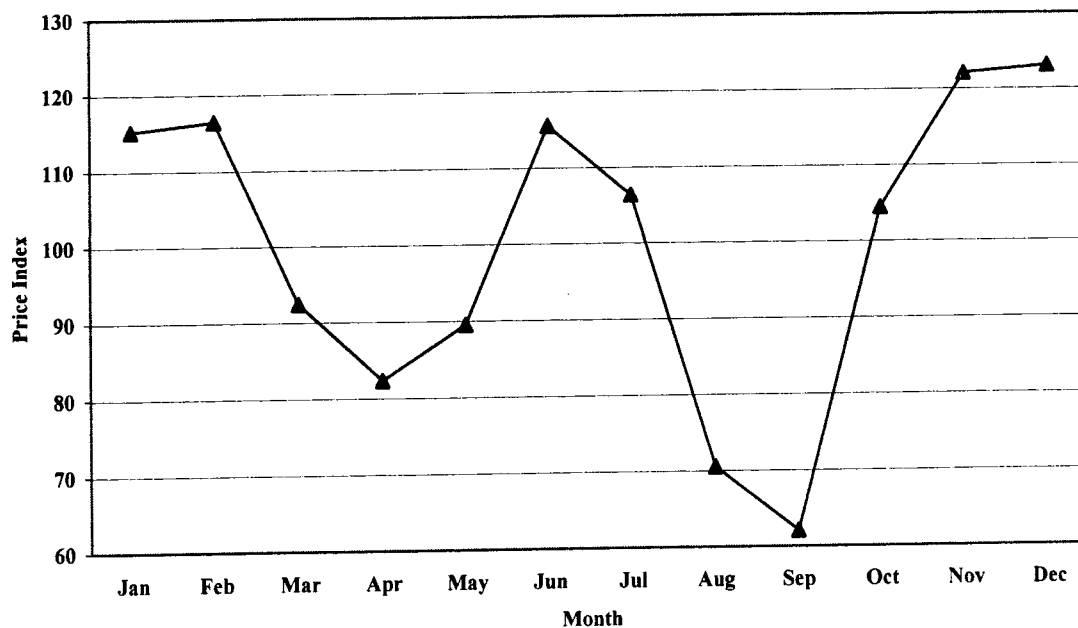
Price Fluctuation in the Dambulla Market - Ladies Finger



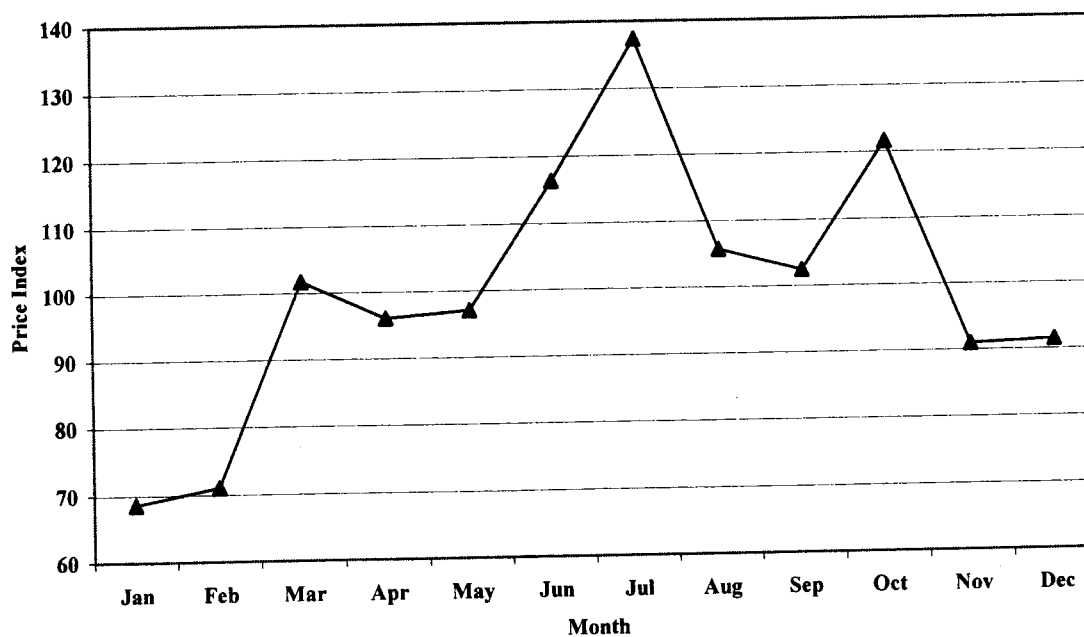
Price Fluctuation in the Dambulla Market - Brinjal



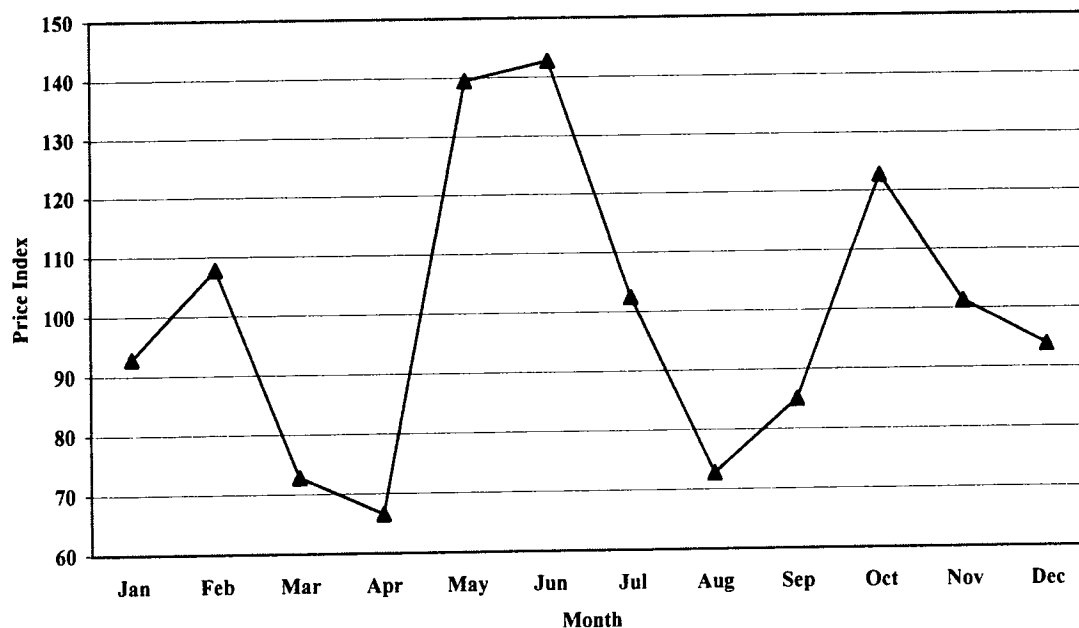
Price Fluctuation in the Dambulla Market - Capsicum



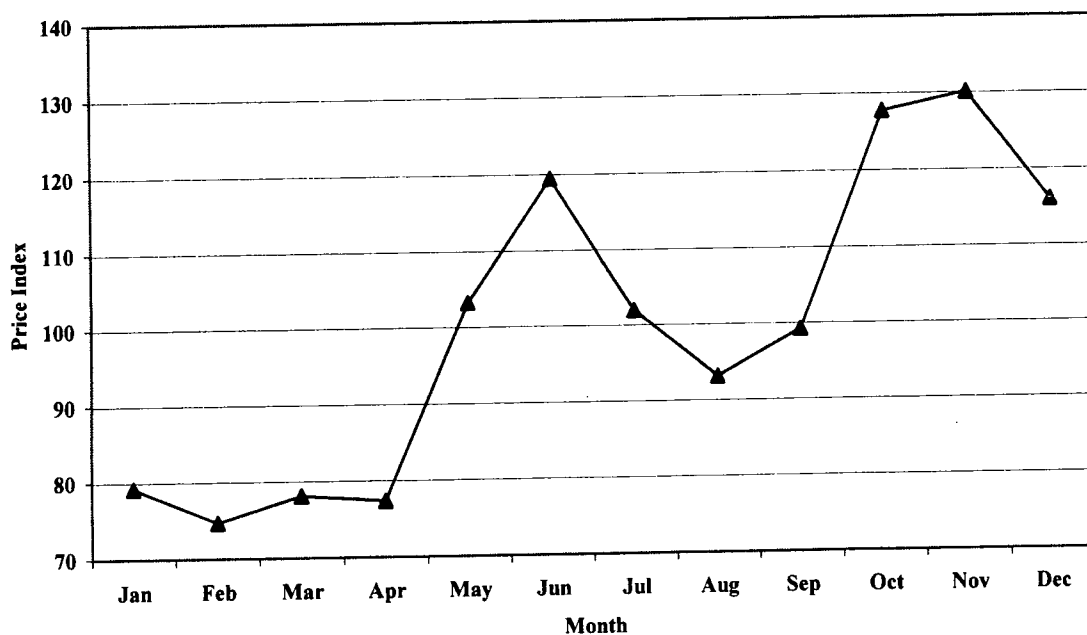
Price Fluctuation in the Dambulla Market - Pumpkin



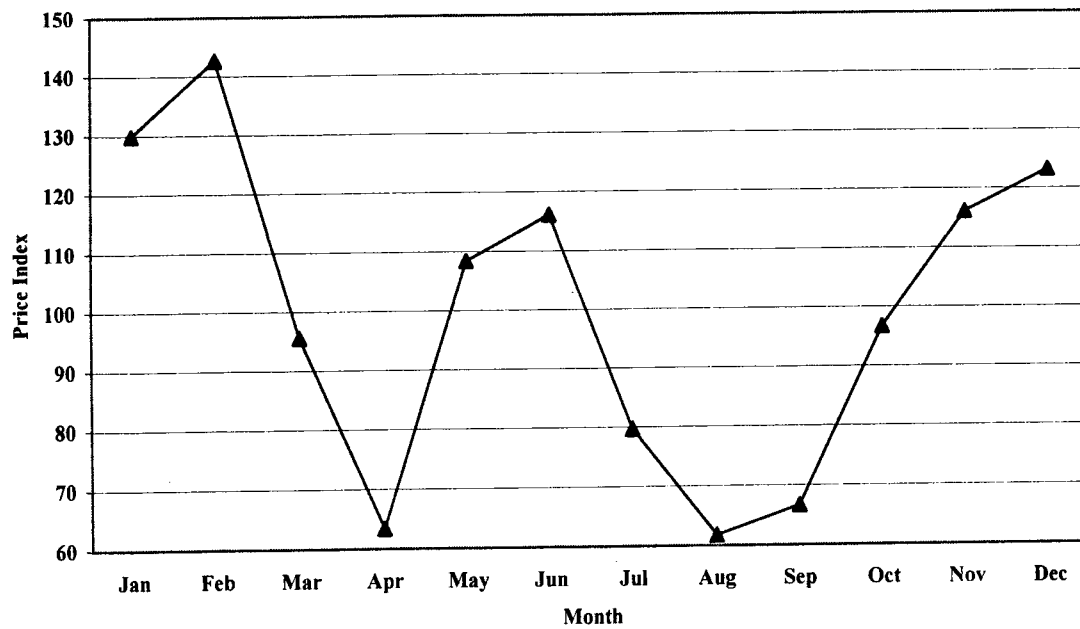
Price Fluctuation in the Dambulla Market - Cucumber



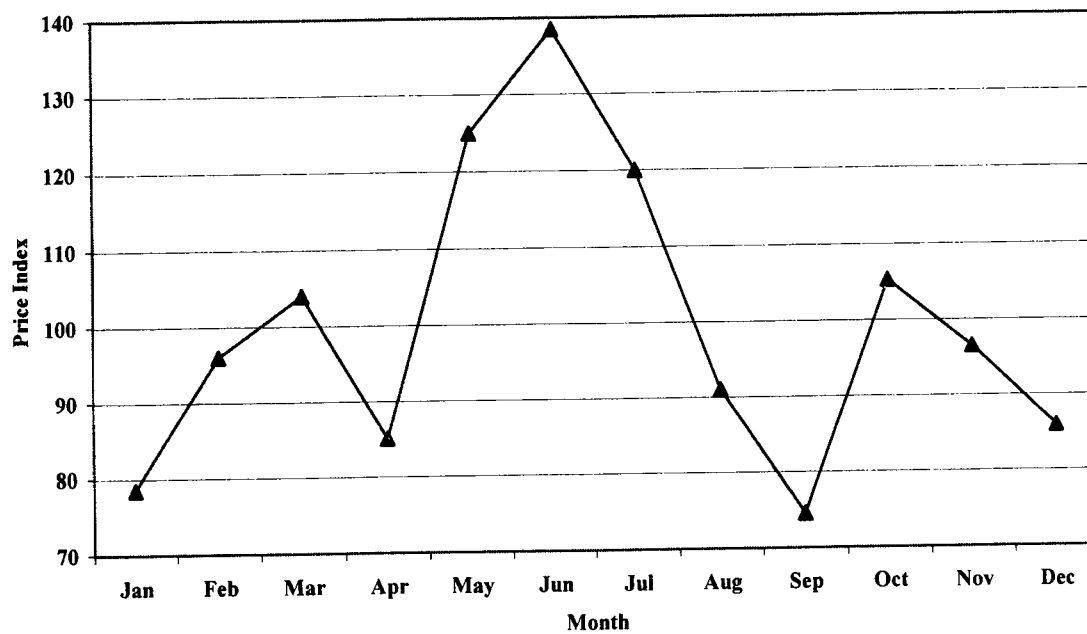
Price Fluctuation in the Dambulla Market - Bitter Gourd



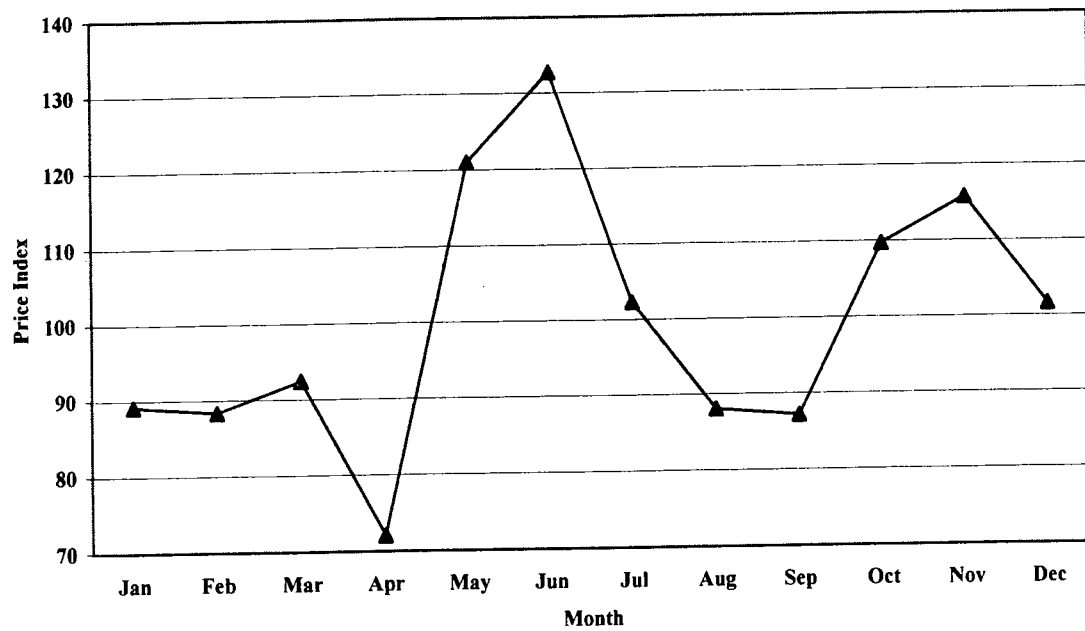
Price Fluctuation in the Dambulla Market - Snake Gourd



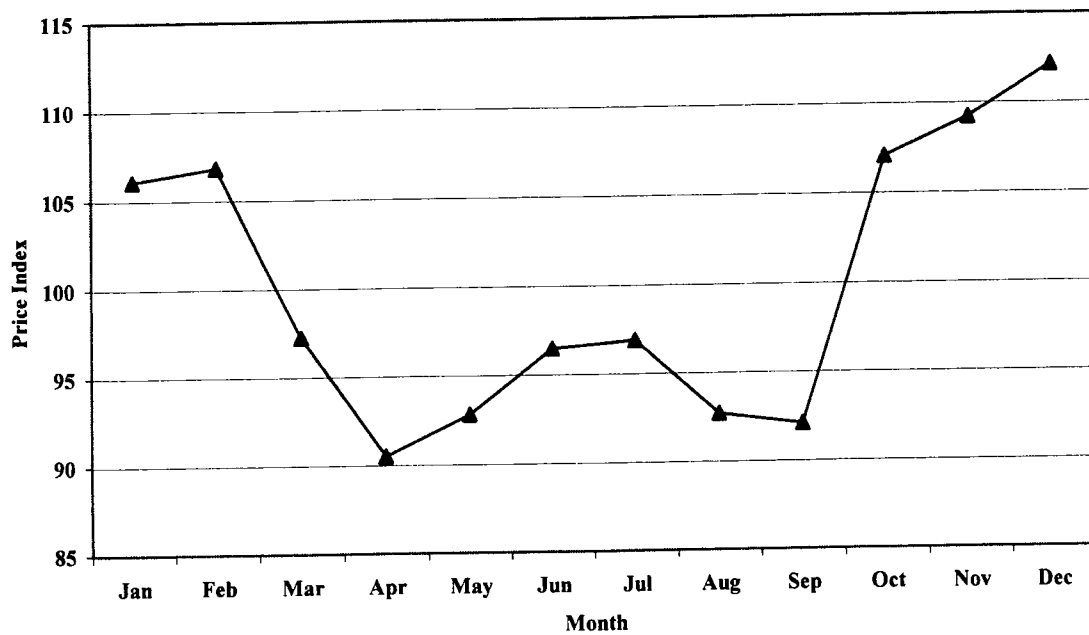
Price Fluctuation in the Dambulla Market - Luffa



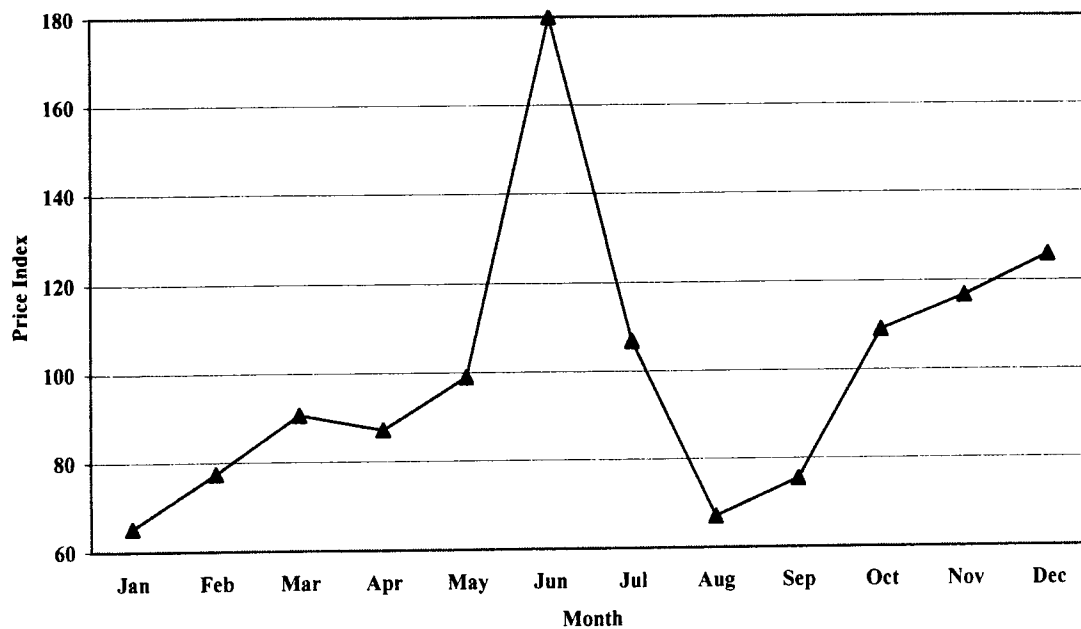
Price Fluctuation in the Dambulla Market - Long Beans



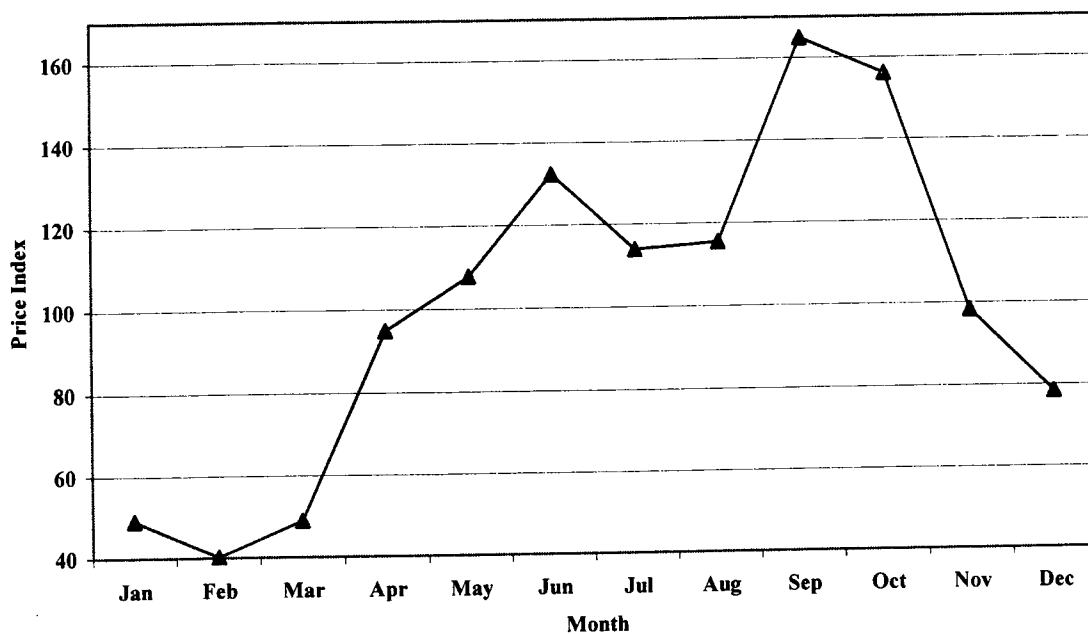
Price Fluctuation in the Dambulla Market - Ash Plantain



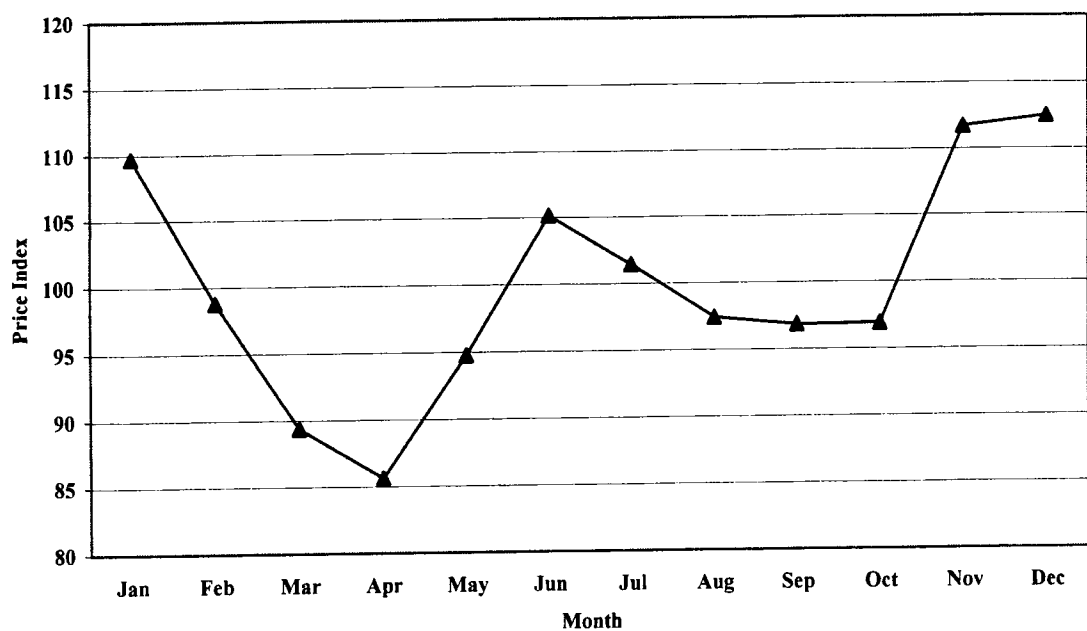
Price Fluctuation in the Dambulla Market - Green Chillies



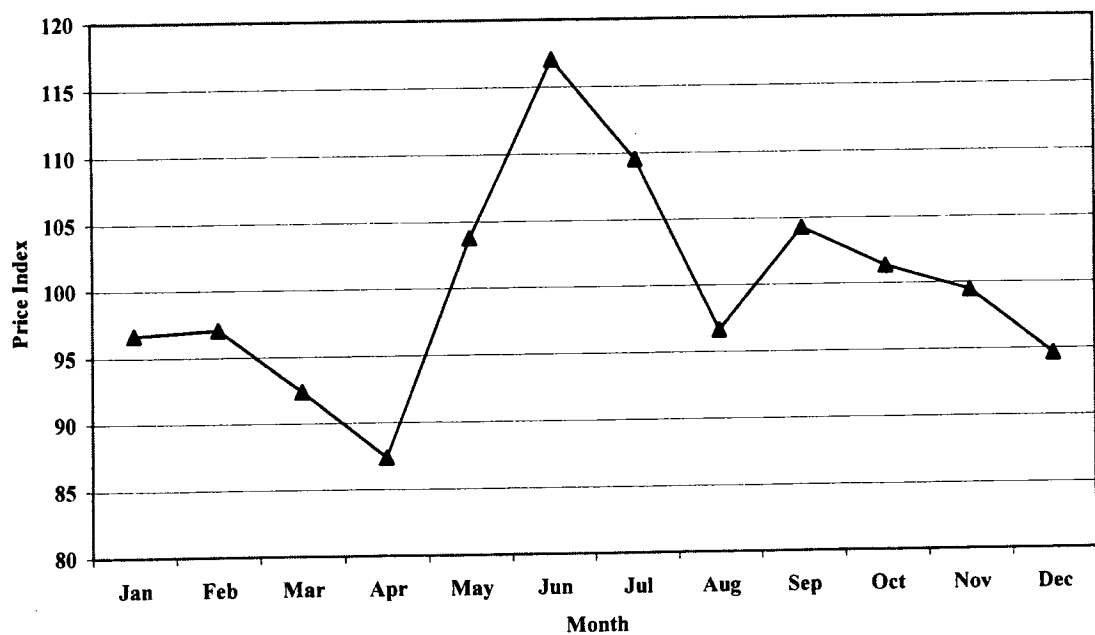
Price Fluctuation in the Dambulla Market - Lime



Price Fluctuation in the Dambulla Market - Sweet Potato



Price Fluctuation in the Dambulla Market - Manioc



Annex 07 : Commodity Specification by Variety and Location

Crop	Variety	Location
Beans	<ul style="list-style-type: none"> ○ Val ○ Roll 	<ul style="list-style-type: none"> * Naula (Matale * Pallepola (Matale, Kandy) * Welimada, Hanguranketha, Marassana
Carrot	----	<ul style="list-style-type: none"> * Nuwara Eliya * Others – (Kandy/Marassana/Hanguranketha)
Leeks	----	<ul style="list-style-type: none"> * Nuwara Eliya * Others – (Kandy/Marassana/Hanguranketha)
Beetroot	<ul style="list-style-type: none"> ○ With Leave ○ Cut Beet 	<ul style="list-style-type: none"> * Nuwara Eliya * Others (Hanguranketha/Dambulla/Kandy/Melsiripura) * Nuwara Eliya * Others – (Hanguranketha/Dambulla/Matale) * Melsiripura
Knol Khol	---	<ul style="list-style-type: none"> * Nuwara Eliya * Others – (Matale/Hanguranketha/Dambulla)
Radish	○ With Leaves	<ul style="list-style-type: none"> * Nuwara Eliya * Others – (Hanguranketha, Marassana, Dambulla/Matale/Welimada)
	○ Cut Radish (Short)	*Nuwara Eliya/Hanguranketha, Matale/Welimada
	○ Cut Radish (Long)	* Puttalam/Polpithigama/Wariyapola
Cabbage	○ Gal Gova	<ul style="list-style-type: none"> * Nuwara Eliya, * Dambulla/Matale
	○ KY (Papadam)	* Hanguranketha/Marassana/Dambulla/Matale
Tomato	<ul style="list-style-type: none"> ○ Round ○ Goraka 	----
Ladies Finger	<ul style="list-style-type: none"> ○ Long ○ Short (Haritha) 	----
Brinjal	<ul style="list-style-type: none"> ○ Len Iri ○ Chena 	<ul style="list-style-type: none"> * Welimada * Other
Capcicum	<ul style="list-style-type: none"> ○ Puna ○ Other 	<ul style="list-style-type: none"> * Up Country * Dambulla * Wellawaya
Pumpkin	○ Spong	* Up Country
	○ Mimini	* Dambulla
	○ Batana (Butternut)	
Cucumber	<ul style="list-style-type: none"> ○ White ○ Other 	----
Bitter Gourd	<ul style="list-style-type: none"> ○ Long ○ Thel ○ Other 	----
Snake Gourd	<ul style="list-style-type: none"> ○ Long ○ Short 	<ul style="list-style-type: none"> *Dambulla * Hanguranketha,/Welimada * Other
Luffa	<ul style="list-style-type: none"> ○ Mahi ○ Chena 	<ul style="list-style-type: none"> * Matale, Marassana, Kandy * Galewela, Anuradhapura
Long Beans	○ Polon	-----

	<input type="radio"/> Hawari <input type="radio"/> White (Bushita) <input type="radio"/> Green	
Winged Beans	<input type="radio"/> Long <input type="radio"/> Short <input type="radio"/> Purple	-----
Ash Plantain	----	* Dambulla * Mahaoya/Padiyathalawa
Green Chillies	<input type="radio"/> MI 1 <input type="radio"/> MI 2	----
Sweet Potatoes	<input type="radio"/> White <input type="radio"/> Red	-----
Manioc	<input type="radio"/> Up Country <input type="radio"/> Other	* Kandy * Other

Source: Field Survey