

**A STUDY ON PROBLEMS AND PROSPECTS
IN EXPORT OF NATURAL RUBBER
FROM INDIA – WITH SPECIAL REFERENCE TO
RUBBER BOARD, KOTTAYAM**

SUMMER TRAINING REPORT

(AS PROJECT REPORT)

Submitted by

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In partial fulfillment for the award of the degree

of

MASTER OF BUSINESS ADMINISTRATION

Dr. N.G.P. INSTITUTE OF TECHNOLOGY

COIMBATORE -641 048.

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Bonafide Certificate

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SUMMER TRAINING PROGRAM WORK

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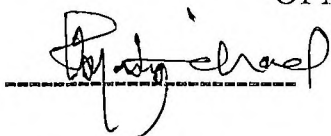
This is to certify that the summer training program work entitled
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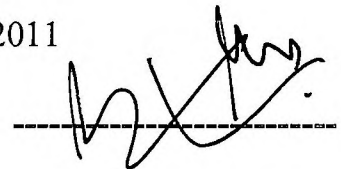
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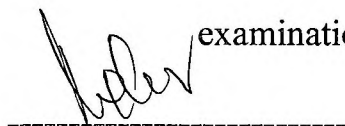
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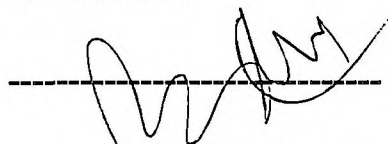
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(वाणिज्य एवं उद्योग मन्त्रालय, भारत सरकार)

THE RUBBER BOARD

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CERTIFICATE

Certified that the project work entitled "Export of Natural Rubber from India – Problems & Prospects" is the bonafide record of the work done by Miss Soniya Stephen, Reg.No.098001105042, First Year MBA student of Dr.N.G.P Business School, Dr.N.G.P. Institute of Technology, Coimbatore. She had done this summer project work during the period from 22nd June to 23rd July 2010 at the Rubber Board, Kottayam.




DIRECTOR FINANCE

DIRECTOR (FINANCE)
RUBBER BOARD
MINISTRY OF COMMERCE & INDUSTRY
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KOTTAYAM 686 002

Declaration

DECLARATION

This is to declare that the project report entitled to **A STUDY ON PROBLEMS AND PROSPECTS IN EXPORT OF NATURAL RUBBER FROM INDIA – WITH SPECIAL REFERENCE TO RUBBER BOARD, KOTTAYAM** submitted to the Anna University in partial fulfillment of the requirements for the award of the degree of **MASTER OF BUSINESS ADMINISTRATION** is a record of original project work done by me under the guidance of **Mr. Thomas Michael** during my period of study in **Dr. NGP INSTITUTE OF TECHNOLOGY, COIMBATORE**

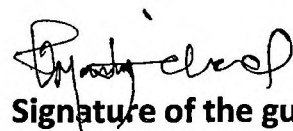


Signature of the student

SONIYA STEPHEN

098001105042

I certify that the declaration made above by the candidate is true



Signature of the guide

Mr. Thomas Michael

Acknowledgement

ACKNOWLEDGMENT

I have immense pleasure in representing this report. This report gives useful background information about **A STUDY ON PROBLEMS AND PROSPECTS IN EXPORT OF NATURAL RUBBER FROM INDIA – WITH SPECIAL REFERENCE TO RUBBER BOARD, KOTTAYAM**. The volume contains facts, figures, and interesting information about the company. It is heterogeneous mix of data and it is organized well to provide better understandability.

My heartfelt thanks are due to Mr. Thomas Michael, faculty, Dr.N.G.P. Business School, Coimbatore, for his kind help and constant encouragement in the course of study through giving proper instructions for me as my respective guide and for giving me this opportunity to undertake this project work during my studies.

I record my profound gratitude and indebtedness to Mr. SADEESH BABU, B.Tech, Scientist and all other staff members of **RUBBER BOARD, KOTTAYAM** for giving me valuable support and guidance during this project work.

I express my heartfelt thanks to all the faculty members of Dr. N.G.P. Business School for their encouragement.

I express my heartfelt devotion and admiration to my parents, friends and relatives for their valuable support.

Finally, I thank the almighty who has been with me as power to complete this project work successfully.

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Chapter 1

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 Introduction of the study

Rubber under the Ministry of Commerce & Industry Government of India is the organization which controls all aspects of Natural Rubber like production, consumption, imports and exports in the country. India is the fourth largest producer of Natural Rubber in the world and its productivity in yield per hectore is the highest among the countries producing NR. Similarly the consumption of NR is also high & India is the 2nd largest consumer of NR just behind China. A review of all aspects of NR is given below.

Natural Rubber is a product of vital importance used in a wide range of application such as Industry, Agriculture, Transportation & domestic life. NR is obtained mostly from rubber trees- botanically known as *Hevea Brasiliensis*. India is one of the predominant cultivation of NR. The production during the year 2008-2009 is estimated at 864500 metric tons. During the same period the consumption was reported as 871720, the demand and supply gap has been met by imports from other countries. The production, consumption, exports & imports and all related aspects of NR is controlled by the autonomous organization. The Rubber Board constituted under The Ministry of Commerce Government of India. Its head quarter is at Kottayam Kerala. A silent features and brief outline of the organization are described below.

1.2 OBJECTIVES OF THE STUDY

Primary objective

- To study the export of Natural Rubber from India – problems and prospects

Secondary objective

- Existing export marketing potential of Natural Rubber
- To analyze the future marketing trend of Natural Rubber
- To give suggestions based on the findings of the study.

1.3 RESEARCH METHODOLOGY

The value of any systematic research lies in its methodology it is a way to systematically solve research problem. Methodology helps the investigator to conduct the study in a prescribed manner.

Methods of data collection

After the research objectives the researcher has to collect the needed information. In data collection methods, one should know about the variety and sources of data which may yield the derived results, the sources of data is,

- Primary data

Primary Data

Primary data is those data which is collected a firsthand either by the researcher himself or by someone else especially for the purpose of study.

Sources of primary data

- TREND ANALYSIS
- SWOT ANALYSIS

1.4 NEED FOR THE STUDY

RB is one of the premier institutes in the government sector in Kerala. There force made by this organization has created plenty records in the development of rubber plantation industry in the country. From the meager 15000 hector in 1947 the area under rubber has increased to more than 600000 in 2009. The production of NR increase from 16000 in 1950-1951 864500 metric tonnes in 2008-2009. The productivity also increased 1800 kg/hector.

Working with an organization report will help me to understand the organization and to improve my capacity and qualities as a business student / MBA student. Hence I approached the Rubber Board through this project entitled “EXPORTS OF NATURAL RUBBER FROM INDIA – PROBLEMS AND PROSPECTS”

The matters regarding the summer project was discussed in detail & few options are analyzed based on thus present subject was chosen for the project.

1.5 SCOPE OF THE STUDY

As per the present data available the total quantity of NR export from India is about 4502045 tonnes in 2008 -2009. The major exporters are China, Germany, Spain Malaysia etc. A study from the business practices and marketing modalities of NR will be useful for better planning and development of policies. Due to time constraints completion of the study in this wide area is rather difficult. Hence the present project is confined to 5 countries which are importing 80% of NR from India. Strategies and results obtained from the study will be useful to evaluate the business environment related to exporting of natural rubber from India.

1.6 LIMITATIONS OF THE STUDY

- Being an agricultural commodity the production depends on climatic factors and other policy decisions.
- Economic decisions, export and import policies, industrial growth in rubber related areas etc are key factors which controls the results and projections of the study.
- The future s may change and depends on several favorable and unfavorable facts.
- The study is undertaken as a part of the project work, for the academic purpose only.

1.7 REVIEW OF LITERATURE

Natural Rubber A Brief Introduction

Natural Rubber is obtained by agriculture practices and the most important commercially successful tree is “HEVEA BRASILIENTUS” - an Amazonian plant which was propagated from South America. The seeds were brought and planted in South East Asian countries and Ceylon which led the revolution for the development of plantation sector in these countries. India is now the third largest producer and second largest consumer of natural rubber in the world. Its significance is more relevant when we analyse the utility and application of Natural Rubber in our day to day life. Rubber is used to produce from tiny syringe head to giant auto tyres and large dams for irrigation.

Production:

India achieved reasonable growth rate in increase in area under rubber cultivation. An average growth rate of about 2% is observed during past 10 years. The data pertaining to area under rubber & production are given below.

Table: 1.1**The area under rubber cultivation in India 1970 – 2006**

YEAR	AREA
1970 – 1971	217198
1980 – 1981	284166
1990 – 1991	475083
2000 – 2001	562670
2001 – 2002	566555
2002 – 2003	569667
2003 – 2004	575980
2004 – 2005	584090
2005 – 2006	597610

Source: Indian Rubber Statistics 2006

The area has been increased three fold from 1971 to the current year. Further the production is also increased substantially. The relative data is given below.

Table: 1.2**The production of NR in India 2000 – 2006**

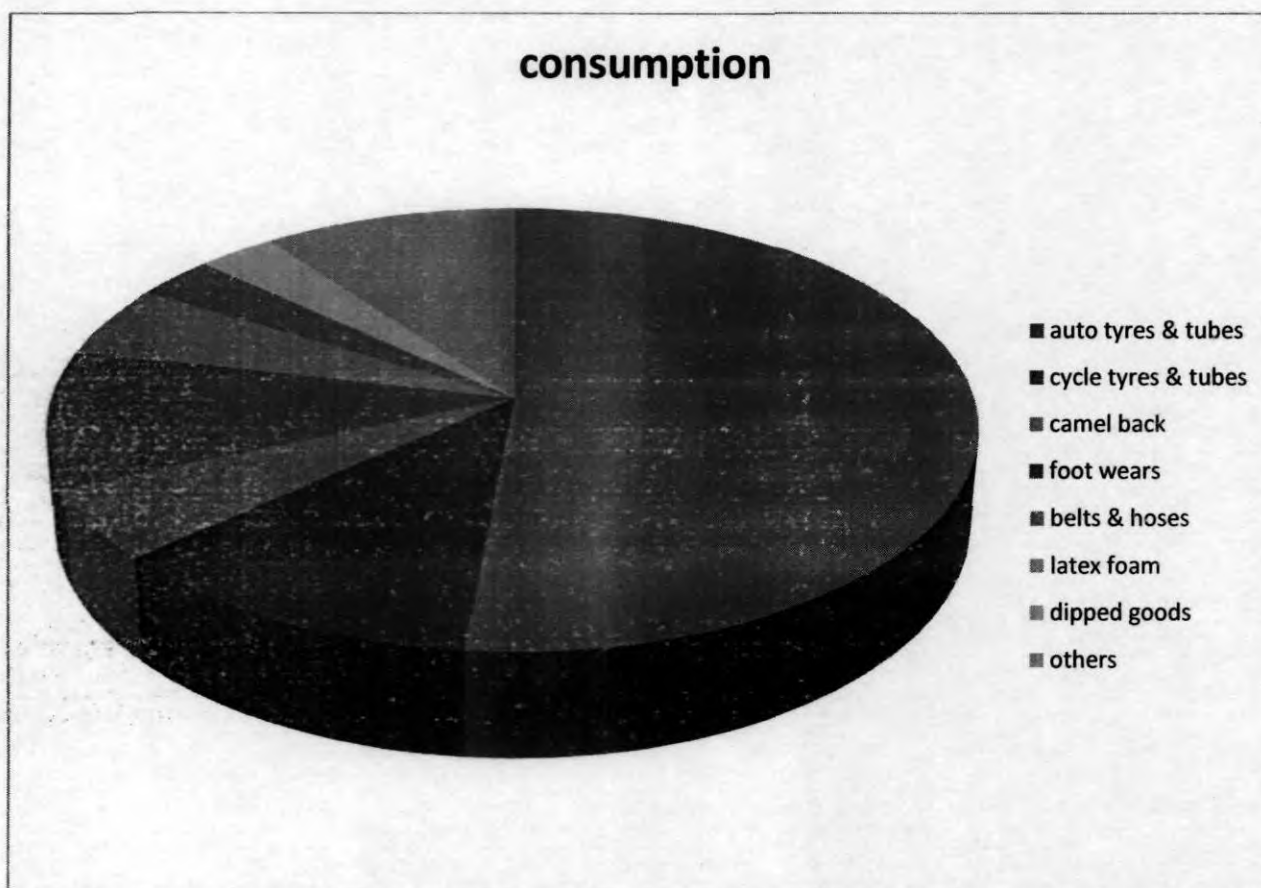
YEAR	TOTAL PRODUCTION
1999 – 2000	622265
2000 – 2001	630405
2001 – 2002	631400
2002 – 2003	649435
2003 – 2004	711650
2004 – 2005	749665
2005 – 2006	802625
2006 – 2007	852895

Source: Indian Rubber Statistics 2006

The production has increased from 6.3 lakhs in 2000 – 2001 to 8.31 lakhs in 2009 – 2010. Also the productivity of the plantation has increased to more than 1800 KG per hectore.

Consumption:

The data related to the consumption of NR in India given in the table appended below. The consumption of rubber increase from 871720 metric tonnes in 2008 – 2009. It can be seen that the consumption of rubber is always slightly higher than the production except in the year 2006 – 2007 of the demand is met by imports from other countries. Bulk of the material produced is concerned domestically and possibilities of exports of NR where negligible in the past years. On the consumption pattern relate to sector wise segregation the percentage consumption of different category where given under.

Figure: 1.1**The consumption of NR in India**

This illustrates that the transportation sector – the automobile industry (tyre & tubes) continued to consume more than 50% of the total production of NR in the country. Other sectors of importers are the foot wears, bells & hoses, cycle tyre & tubes etc.

Table: 1.3**The Demand of Natural Rubber**

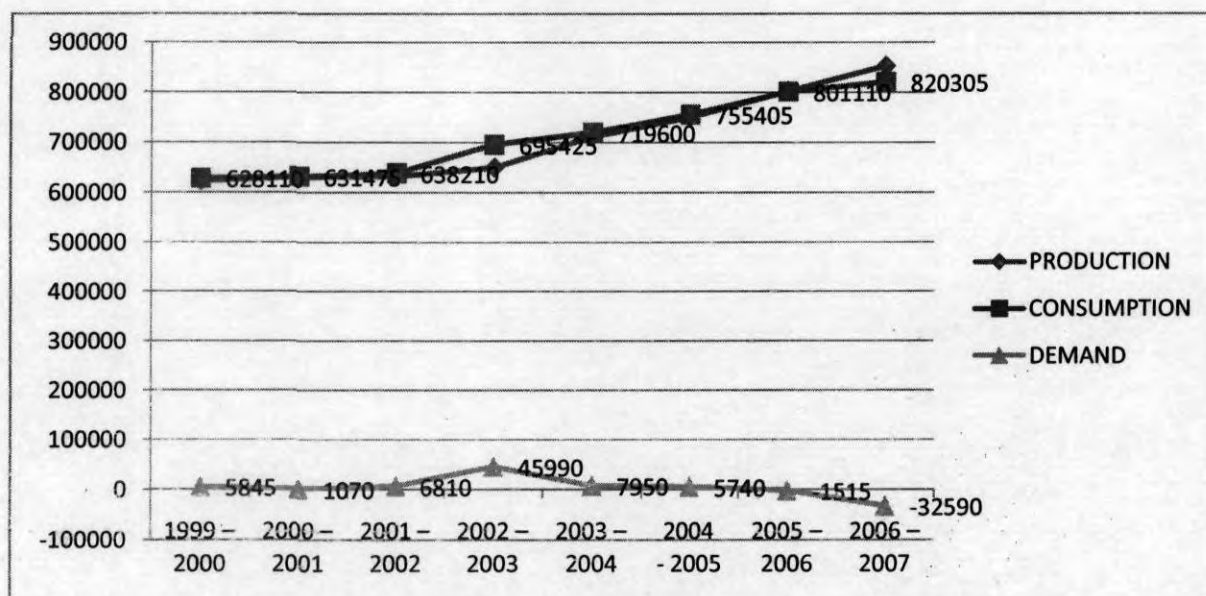
YEAR	PRODUCTION	CONSUMPTION	DEMAND
1999 – 2000	622265	628110	5845
2000 – 2001	630405	631475	1070
2001 – 2002	631400	638210	6810
2002 – 2003	649435	695425	45990
2003 – 2004	711650	719600	7950
2004 – 2005	749665	755405	5740
2005 – 2006	802625	801110	-1515
2006 – 2007	852895	820305	-32590

Source: Indian Rubber Statistics 2006

Demand Graph

The demand and supply graph of NR for the past 10 years were estimated & tabulated below. In the earliest years before 1999 – 2000 period bulk of the requirement of the demand graph was met by imports from other rubber producing countries & India was a net importer of NR in the world market.

Figure: 1.2
The Demand Graph



Imports and Exports

Prior to 1999 – 2000 periods the export of NR from one country is very negligible. This is mainly due to the factor that our consumption was much higher in our production. The requirement was not met from imports. However the trend has changed with the implementation of WTO reforms in 1998 – 1999 period. The concept of globalization related to imports of rubber from other countries to India based on economic factors. To stabilize the market and the Government of India has developed & implemented various schemes the export of NR from India. The benefits of the scheme has attributed for increase exports of NR from the country.

The import of NR was mostly related to the demand prior to the WTO reforms period is a change to economic factor in the post WTO reforms period. Major consumers like tyre industries, bulk exports & large trading houses used to import rubbers for consumption in their units and also for re-export the exact quantities & statistics for these quantities are not known. The quantity of exports & imports are reported are given below.

Table: 1.4**The Export and Import of NR in India**

YEAR	EXPORT	IMPORT
1999 – 2000	5989	125055
2000 – 2001	13356	115893
2001 – 2002	6995	161341
2002 – 2003	55311	156119
2003 – 2004	75905	148932
2004 – 2005	46150	185930
2005 – 2006	73830	177403
2006 – 2007	56545	261697

The data reveals that there is appositve increase in imports & exports of NR. The fluctuation in the quantity may be due to the price and economic conditions prevailed in the country visa versa international market. When there is an increase price in the international market the export will rule the market. When the domestic market have higher price than international market the imports of NR will be high.

Prior to 1999 period India was net importer & the production was hardly to meet our domestic consumption. In the post WTO period boots from other countries were marginally high & the Government of India decided to implement special schemes for exporters NR from the country. Rubber board is the organization to implement the export incentive schemes.

There were minor teething problem in exporting NR from India to a certain extent to the country was successful to reduce these problems.

Major Harding's associated with export of NR for the prolonged year from 1947 – 1999. India was a consumer in the world market even though we produce substantial quantity. When we entered the world market the points raised are:

- Quality of the commodity
- Quantity of the material to be supplied
- Price / cost of the product

Quality

The product to be marketed in the international market should be of highest quality comparable to that of competing countries like Malaysia, Thailand & Indonesia. The standards prescribed by some countries were superior to others. Consistency & reliability where added advantages made by other countries.

Quantity

Most of the bulk orders for NR where of 100 tones & multiple. Supply of huge quantities was not practiced & pooling from different customers was observed to be a different task.

Price

Economic factors & pricing are real components for fixing contracts related to rubber fluctuations in price within the short time was also a genuine factor. Its reduce acceptance merchandise from India. Finally lack of experience in business deals market information etc also reduced the growth of export concepts utilized for improving the situations. Rubber Board being the authorized authority for promotion made efforts & promotional measures for increasing the exports. Some of them were detailed below.

- Introducing incentives for packing & forwarding of export goods.
- Improving the knowledge base related to market information.
- Participation in international business & trade fairs.
- Conducting awareness programme to educate exports.
- Through these measures Rubber Board could make some strategical move to increase the exports of NR from the country. However cost & economic factors are still a critical & controlling factors related to exports.

CHAPTER 2

INDUSTRY PROFILE

2.1 INDUSTRY PROFILE

The Rubber Board

The Indian Rubber board was constituted under the Rubber Production and Marketing Act, 1947. This act was passed on the recommendation of an adhoc committee appointed by the Government of India in 1945 and it came into force on 19 April 1947. The rubber production and Marketing Act of 1954 made certain changes in the constitution of the Board and amended its name as “The Rubber Board”.

Functions of The rubber Board

- To promote by such measures as it thinks fit the development of the rubber industry.
- Undertaking scientific, economic & technological research.
- The supply of technical advice to rubber growers
- Improving the marketing of rubber
- Collection of statistics from owners of estates, dealers and manufacturers
- Securing better working conditions and the provision and improvement of amenities and incentives to workers.

Constitution

The Rubber Board functions under the Ministry of Commerce & Industry of the Government of India. The Board has a Chairman appointed by the Central Government. He is the principal executive officer responsible for the proper functioning of Board and implementation of its decision and discharge of its duties under Rubber Act.

There are 25 other members of the board consisting of :

- Two members to represent the state of Tamil Nadu. One of them shall be a person represent the rubber producing interest.
- Eight members to represent the state of Kerala. Six of them shall be represent the rubber producing interest, three of such being persons representing the small growers.
- Ten members to be nominated by the Central Government, two of whom shall represent the manufactures and four labours.
- Three members of Parliament two of them shall be elected by the house of the people and one by the council of states.
- The rubber production commissioner of the rubber board (ex-officio) and
- The Executive Director (ex-officio).

Chapter 2

PROFILE

2.2 COMPANY PROFILE

Administration Department

The department of Administration headed by the Secretary has sections such as Establishment in the Labour Welfare & Legal in addition to the Security Wing.

Rubber Production Department

The department headed by the Rubber Production Commissioner is responsible for planning formulation & implementation of schemes for improvement and expansion on rubber cultivation and production.

Research Department

The Research Department headed by the Director of research, is located on hillock about 8 KM east of Kottayam in an area of 33 hectares.

- Botany
- Plant physiology and exploitation
- Agronomy and soils
- Rubber technology
- Bio-technology
- Agricultural economics

Processing and Product Department

Headed by The Director, the Department has 5 divisions viz. Engineering Factory Management, Quality Control, Rubber Processing & Market Development & Finance & Accounts.

Finance and Accounts Department

The finance and Accounts department is headed by the Director Finance. Besides the central Finance and accounts division, Cost Accounts Division and the Electronic Data Processing Division.

Training Department

The training department is headed by the director (Training). This department functions at Rubber Training Centre (RTC) at Kottayam and conducts various training programmes of the development of old sectors of the Indian Rubber Industry.

Statistics and Planning Department

With the Joint director as the head, the S&P division at the head office and statistical unit at the RRII comprise the statistic and planning department.

Licensing and Excise Duty Department

The L&ED department headed by the director L& ED is entrusted with the functions of issue of license to acquire NR for sale for processing and manufacture of rubber products and collection of excise duty of rubber.

- Licenses
 - Dealer's licenses
 - Processor's licenses
 - Manufacturer's licenses
- Interstate transport of rubber
- Duty of excise
- The obligations of the licenses
- Penal provisions

Market Promotion Department

Market Intelligence Cell

- Collection, completion and dissemination of NR prices. This includes the daily, weekly, bi-weekly, monthly and yearly prices of various grades of NR in the domestic as well as in the international market. The price data is disseminated through print and visual media. In addition, it is made available to the public by Rubber Board website and Interactive Voice Response System(IVRS).
- Providing sales and marketing support to companies promoted or assisted by the Rubber Board.
- Conducting market surveys and market analysis.
- Publishing the Directory of Rubber Goods Manufactures in India.

Export Promotion Cell

- Issuing Registration-cum-Membership Certificate for NR export. Rubber Board is the designated Export Promotion Council for NR. As per the provisions for foreign trade policy, exporters should have a valid registration-cum-Membership Certificate issued by the Export Promotion Council relating to their main line of business. Accordingly, all intending exporters of NR have to obtain the certificate by registering with the Rubber Board. Rubber Board also issuing Certificate of Origin (COD) for export of NR.
- Providing functional assistance to exporters for preparing NR into exportable form.
- Providing market information on different forms of NR in the target countries.
- Conducting training programmes in export management and procedures.
- Undertaking export promotional activities of NR by participating in international trade fairs and exhibitions and providing publicity to Indian Rubber Board in the international market.
- Sponsoring trade delegation and organizing buyer seller meets.
- Publishing importers' and exporters' directories.
- Promotion of Indian Natural Rubber Logo, developed with an eye on creating brand image for Indian natural rubber in the global market.

Domestic Promotion Cell

- Monitoring the import of natural rubber in the country.
- Rendering marketing assistance to Rubber Companies / Rubber Production Societies.

2.3 PRODUCT PROFILE

Natural Rubber- History and Development

The natural rubber industry really began to expand and was fuelled by the additional supplies of rubber that became available from the Far East. This was due to Sir Henry Wickham who transported 70,000 seeds from Brazil to Kew Gardens in 1876. Some 1900 of these germinated and the resulting seedlings were shipped onto Ceylon and Singapore, from which virtually all the rubber trees in the Far East are descended. Also at about that time Henry Ridley (Director of the Singapore Botanic Gardens from 1888 to 1911) developed tapping techniques and instigated many of the methods used to this day. The discovery of the pneumatic tyre, or really its re-invention, by John Boyd Dunlop in 1888 set the scene for increased consumption as early vehicles moved away from solid tyres and became more sophisticated. Aircraft tyres were first marketed in 1910 and the earliest pneumatic truck tyre emerged in the USA circa 1917.

The Future for Natural Rubber

The future for natural rubber looks bright. Ever increasing volumes are being produced. At 5.92million tonnes per annum, natural rubber has 39% of the world rubber consumption of 15.14 million tonnes per annum. The earthquake-bearing market will take off when people realise that such systems not only save lives, but also the contents of the buildings. Powder-free surgical gloves are on the way and this, achieved by polymer coatings both on the inside and out, will eliminate the protein allergy problem. All predictions of future cars see them continuing to use rubber tyres. The space shuttle lands on all natural rubber tyres because of the superb performance of this 500 year old polymer. With space travel around the corner, surely natural rubber has a guaranteed future!

Chapter 3

DATA ANALYSIS AND INTERPRETATION

CHAPTER 3

DATA ANALYSIS AND INTERPRETATION

- **EXISTING EXPORT MARKETING POTENTIAL OF NATURAL RUBBER**

The export of NR from India recorded an increase from 5989 metric tonnes in 1999 – 2000 to 56545 metric tons in 2006 – 2007. The progress achieved is reasonable good & in certain years the quantity reached even up to more than 7500 metric tons as reported in 2003 – 2004. Down trend was shown 1 or 2 year due to economic and commercial reasons. It can be seen that export of NR is a reality and may increase depending upon economic factors like price, availability & business conditions.

- **TO ANALYZE THE FUTURE MARKETING TREND OF NATURAL RUBBER**

TREND ANALYSIS

$$Y_c = a + bX$$

Table: 3.1

Country-wise export of Natural Rubber 2002 - 2006

Countries	China	Sri Lanka	Malaysia	Germany	U.K
2002	13314	4486	9801	1375	746
2003	31226	9995	7775	2469	1236
2004	16485	10246	4388	2779	331
2005	26521	7556	6363	5680	2501
2006	16592	4760	10412	2658	2324

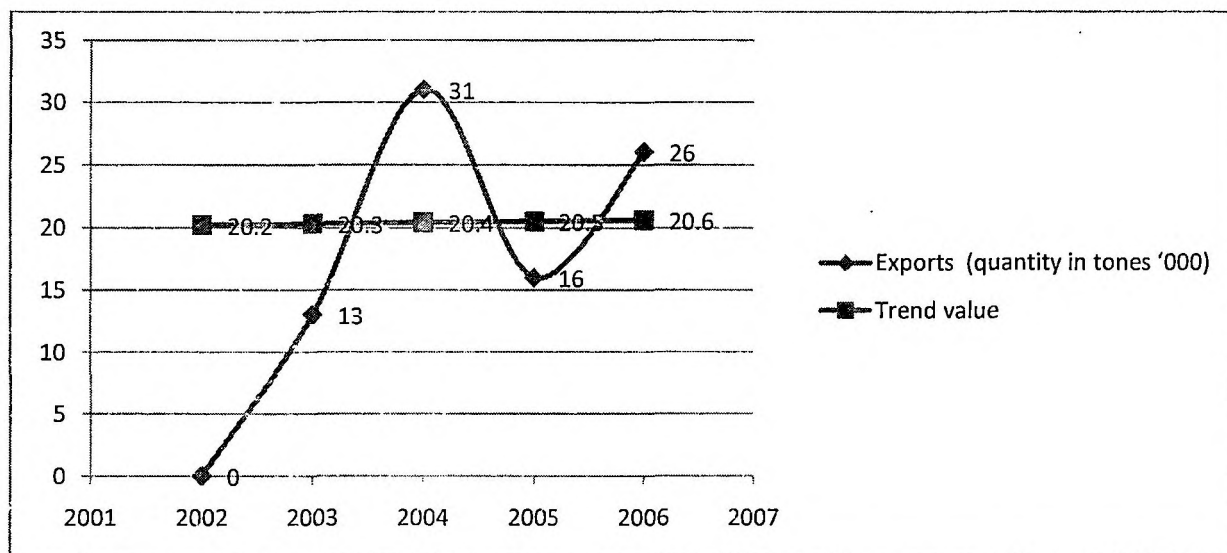
Source: Indian Rubber Statistics 2006

China**Table: 3.2****The trend value of NR to China**

Year	Exports (quantity in tones '000) (Y)	X	XY	Trend value
2002	13	-2	-26	20.2
2003	31	-1	-31	20.3
2004	16	0	0	20.4
2005	26	1	26	20.5
2006	16	2	32	20.6
N=5	? Y=102	? X=0	? XY=1	

Source: Indian Rubber Statistics 2006**Interpretation:**

The export of NR varies from 13314 during 2002 – 2003 to 20222 in 2007 – 2008. There is a search in quantity during 2003 – 2004 and the quantity of exports was almost consistent. This is mainly because of the fact that China is the front runner in export of rubber products in the world and the largest consumer of NR. China imports large quantities from nearby countries like Thailand, Malaysia, and Vietnam.

Figure: 3.1**The trend value of China**

Trend value of China from 2002 - 2006

$$a = \frac{\sum Y}{N}$$

$$= 102/5$$

$$= 20.4$$

$$b = \frac{\sum XY}{\sum X^2}$$

$$= 1/10$$

$$= 0.1$$

$$\text{Trend analysis } Y_c = a + bX$$

$$\text{Since } a = 20.4$$

$$b = 0.1$$

$$Y_c = 20.4 + 0.1 * -2$$

$$2002 = 20.2$$

$$Y_c = 20.4 + 0.1 * -1$$

$$2003 = 20.3$$

$$Y_c = 20.4 + 0.1 * 0$$

$$2004 = 20.4$$

$$Y_c = 20.4 + 0.1 * 1$$

$$2005 = 20.5$$

$$Y_c = 20.4 + 0.1 * 2$$

$$2006 = 20.6$$

Projected to next 5 years (2007 - 2011)

$$Y_c = 20.4 + 0.1 * 3$$

$$2007 = 20.7$$

$$Y_c = 20.4 + 0.1 * 4$$

$$2008 = 20.8$$

$$Y_c = 20.4 + 0.1 * 5$$

$$2009 = 20.9$$

$$Y_c = 20.4 + 0.1 * 6$$

$$2010 = 20.10$$

$$Y_c = 20.4 + 0.1 * 7$$

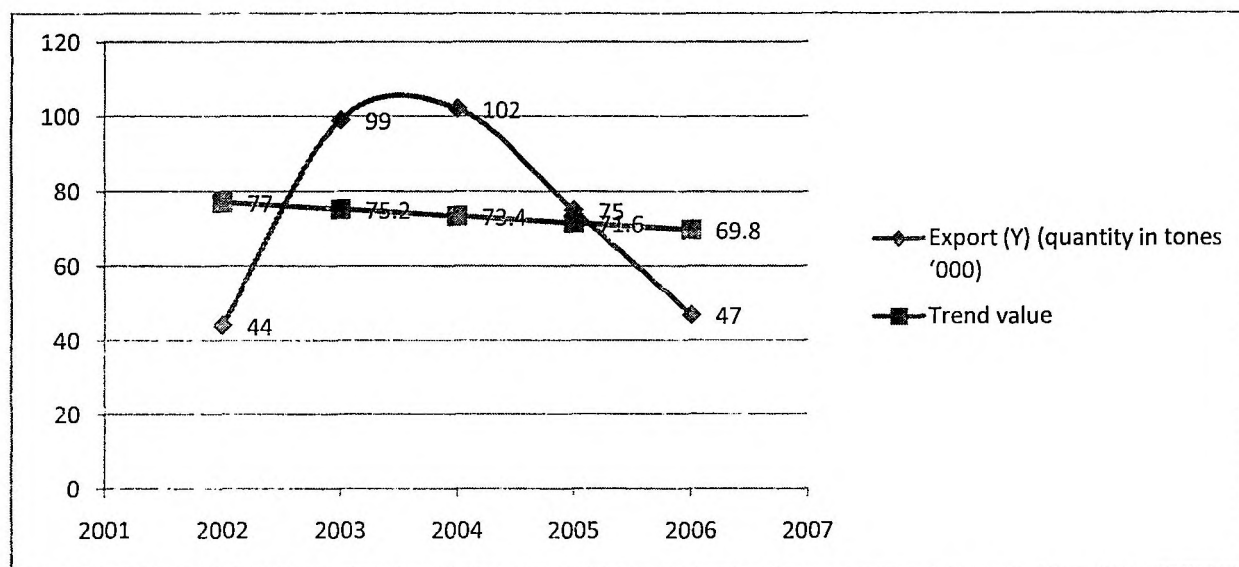
$$2011 = 20.11$$

Sri Lanka**Table: 3.3****The trend value of NR to Sri Lanka**

Year	Export (Y) (quantity in tones '000)	X	XY	X ²	Trend value
2002	44	-2	-88	4	77
2003	99	-1	-99	1	75.2
2004	102	0	0	0	73.4
2005	75	1	75	1	71.6
2006	47	2	94	4	69.8
N=5	? Y=367	? X = 0	? XY= -18	? X ² =10	

Source: Indian Rubber Statistics 2006**Interpretation:**

The export of NR from India to Sri Lanka registered a negative growth from 4486 in 2002 – 2003 to 2789 in 2007 – 2008. The exports reporting during intermediate years were high to the tune of 10246 in 2004 – 2005. Colombo capital of Sri Lanka gain the largest hub for export / shipping operations to Western Countries. There were positive growth for export of NR to Sri Lanka. However due to the difficult business conditions prevailed in Sri Lanka the demand was sluggish.

Figure: 3.2**The trend value of Sri Lanka**

Trend value of Sri Lanka from 2002 – 2006

$$a = \frac{\sum Y}{N}$$

$$= \frac{367}{5}$$

$$= 73.4$$

$$b = \frac{\sum XY}{\sum X^2}$$

$$= \frac{-18}{10}$$

$$= -1.8$$

Trend analysis $Y_c = a + bX$

Since $a = 73.4$

$$b = -1.8$$

$$Y_c = 73.4 + (-1.8) * -2$$

$$2002 = 77$$

$$Y_c = 73.4 + (-1.8) * -1$$

$$2003 = 75.2$$

$$Y_c = 73.4 + (-1.8) * 0$$

$$2004 = 73.4$$

$$Y_c = 73.4 + (-1.8) * 1$$

$$2005 = 71.6$$

$$Y_c = 73.4 + (-1.8) * 2$$

$$2006 = 69.8$$

Projected to next 5 years (2007 - 2011)

$$Y_c = 73.4 + -1.8 * 3$$

$$2007 = 68$$

$$Y_c = 73.4 + -1.8 * 4$$

$$2008 = 66.2$$

$$Y_c = 73.4 + -1.8 * 5$$

$$2009 = 64.4$$

$$Y_c = 73.4 + -1.8 * 6$$

$$2010 = 62.6$$

$$Y_c = 73.4 + -1.8 * 7$$

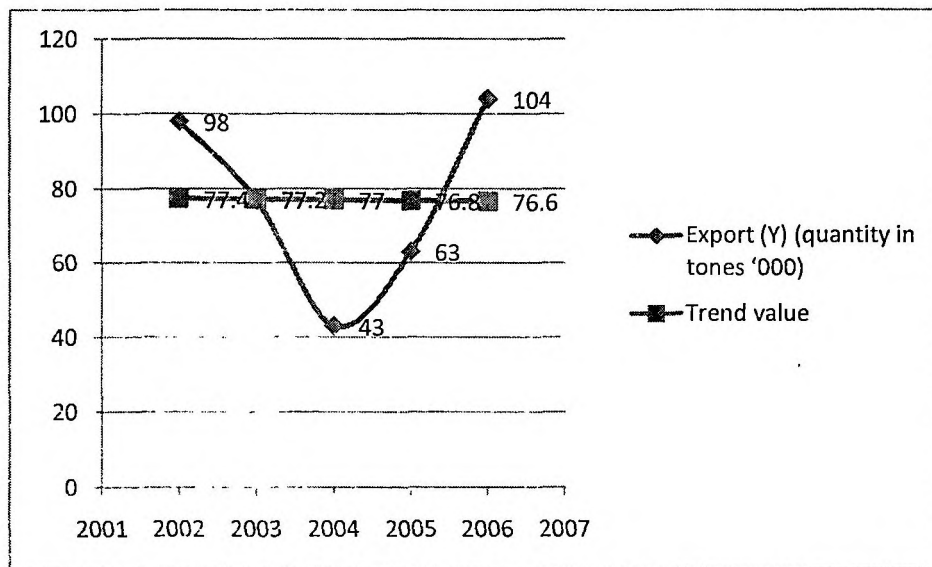
$$2011 = 60.8$$

Malaysia**Table: 3.4****The trend value of NR to Malaysia**

Year	Export (Y) (quantity in tones '000)	X	XY	X ²	Trend value
2002	98	-2	-196	4	77.4
2003	77	-1	-77	1	77.2
2004	43	0	0	0	77
2005	63	1	63	1	76.8
2006	104	2	208	4	76.6
N=5	? Y = 385	? X=0	? XY= -2	? X ² =10	

Source: Indian Rubber Statistics 2006**Interpretation:**

The export of rubber from India to Malaysia was about 9801 metric tonnes in 2002 -2003 and it enhances to 12092 in 2007 – 2008. Malaysia is one of the major producers of NR in the world. Most of the trades from Malaysia to India and vice versa were related to economic factors. Trading companies in NR used to export from Malaysia when there is a demand and price advantage in India. Similarly the Indian exporters used to trade when there is a price advantage and demand is there in Malaysia. A quantity of exports shows a positive growth rate.

Figure: 3.3**The trend value of Malaysia**

Trend value of Malaysia from 2002 – 2006

$$Y_c = a + bX$$

$$a = \frac{\sum Y}{N}$$

$$= 385/5$$

$$= 77$$

$$b = \frac{\sum XY}{\sum X^2}$$

$$= -2/10$$

$$= -0.2$$

Trend analysis $Y_c = a + bX$

Since $a = 77$

$$b = -0.2$$

$$Y_c = 77 + (-0.2) \cdot -2$$

$$2002 = 77.4$$

$$Y_c = 77 + (-0.2) \cdot -1$$

$$2003 = 77.2$$

$$Y_c = 77 + (-0.2) \cdot 0$$

$$2004 = 77$$

$$Y_c = 77 + (-0.2) \cdot 1$$

$$2005 = 76.8$$

$$Y_c = 77 + (-0.2) \cdot 2$$

$$2006 = 76.6$$

Projected to next 5 years (2007 - 2011)

$$Y_c = 77 + (-0.2) \cdot 3$$

$$2007 = 76.4$$

$$Y_c = 77 + (-0.2) \cdot 4$$

$$2008 = 76.2$$

$$Y_c = 77 + (-0.2) \cdot 5$$

$$2009 = 76$$

$$Y_c = 77 + (-0.2) \cdot 6$$

$$2010 = 75.8$$

$$Y_c = 77 + (-0.2) \cdot 7$$

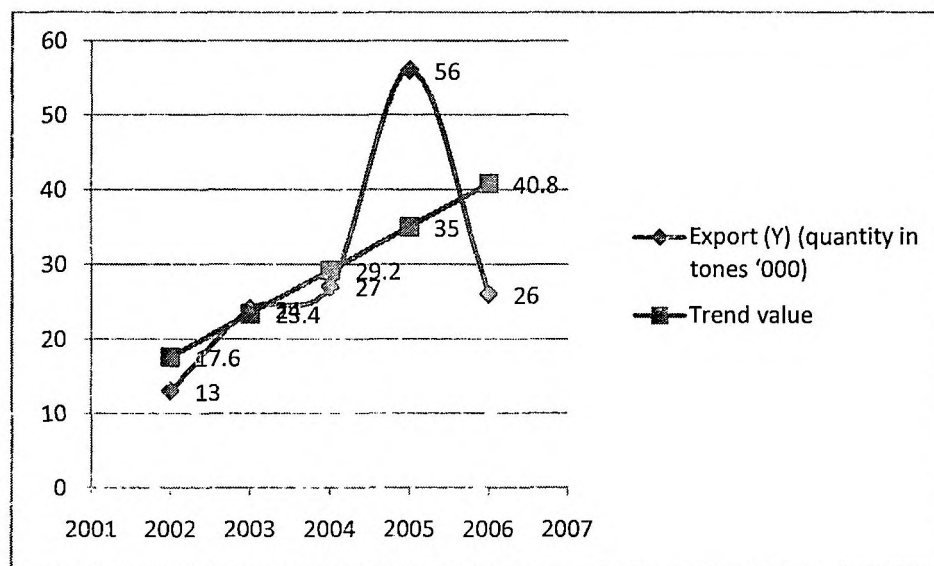
$$2011 = 75.6$$

GermanyTable: 3.5The trend value of NR to Germany

Year	Export (Y) (quantity in tones '000)	X	XY	X ²	Trend value
2002	13	-2	-26	4	17.6
2003	24	-1	-24	1	23.4
2004	27	0	0	0	29.2
2005	56	1	56	1	35
2006	26	2	52	4	40.8
N=5	? Y=146	? X=0	? XY=58	? X ² =10	

Source: Indian Rubber Statistics 2006Interpretation:

One of the technically sound markets for NR is Germany. The NR exported to Germany are to be of stringent and superior quality. They are quality conscious and ready to pay a premium for their quality considerations. The export of NR increase from 1375 in 2002 – 2003 metric tonnes to 2480 in 2007 – 2008. The peak export was in 2005 – 2006 ranging to 5680 metric tonnes.

Figure: 3.5**The trend value of Germany**

Trend value of Germany from 2002 – 2006

$$a = ? \quad Y/N$$

$$= 146/5$$

$$= 29.2$$

$$b = ? \quad XY/X^2$$

$$= 58/10$$

$$= 5.8$$

Trend analysis $Y_c = a + bX$

Since $a = 29.2$

$$b = 5.8$$

$$Y_c = 29.2 + 5.8 \cdot -2$$

$$2002 = 17.6$$

$$Y_c = 29.2 + 5.8 \cdot -1$$

$$2003 = 23.4$$

$$Y_c = 29.2 + 5.8 \cdot 0$$

$$2004 = 29.2$$

$$Y_c = 29.2 + 5.8 \cdot 1$$

$$2005 = 35$$

$$Y_c = 29.2 + 5.8 \cdot 2$$

$$2006 = 40.8$$

Projected to next 5 years (2007 - 2011)

$$Y_c = 29.2 + 5.8 * 3$$

$$2007 = 46.6$$

$$Y_c = 29.2 + 5.8 * 4$$

$$2008 = 52.4$$

$$Y_c = 29.2 + 5.8 * 5$$

$$2009 = 58.2$$

$$Y_c = 29.2 + 5.8 * 6$$

$$2010 = 64$$

$$Y_c = 29.2 + 5.8 * 7$$

UKTable: 3.6The trend value of NR to UK

Year	Export (Y) (quantity in tones '000)	X	XY	X ²	Trend value
2002	7	-2	-14	4	5
2003	12	-1	-12	1	9.5
2004	3	0	0	0	14
2005	25	1	25	1	18.5
2006	23	2	46	4	23
N=5	? Y=70	? X=0	? XY=45	? X ² =10	

Source: Indian Rubber Statistics 2006

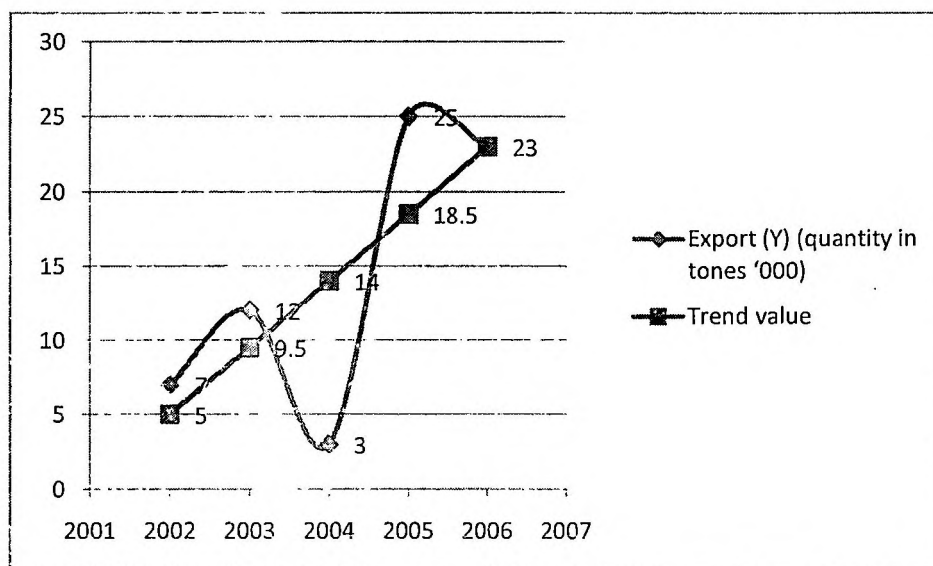
Interpretation:

UK is the country where rubber industries are developed in a high interest growth rate and the products were exported all over the world including India. The mangester industrial sector was very much famous for specialty rubber products meet from NR and synthetic rubber. Most of the NR requirement of UK was met by the import from the Malaysian companies who owned rubber plantations. The qualities were made suitable to the consumers in UK, which were the most attractive factors for acceptance of Malaysian rubber in UK.

India exported small quantities of 746 metric tonnes in 2002 – 2003 and continued with our presence to the extent of 1177 metric tonnes in 2007 – 2008. The growth or increase in trade with UK was marginal. However having a small share would be beneficial to keep – Made in India brand for NR among the UK consumers.

Figure: 3.5

The trend value of UK



Trend value of germany from 2002 – 2006

$$a = \frac{\sum Y}{N}$$

$$= \frac{70}{5}$$

$$= 14$$

$$b = \frac{\sum XY}{\sum X^2}$$

$$= \frac{45}{10}$$

$$= 4.5$$

$$\text{Since } a = 14$$

$$b = 4.5$$

$$\text{Trend analysis } Y_c = a + bX$$

$$Y_c = 14 + 4.5 * -2$$

$$2002 = 5$$

$$Y_c = 14 + 4.5 * -1$$

$$2003 = 9.5$$

$$Y_c = 14 + 4.5 * 0$$

$$2004 = 14$$

$$Y_c = 14 + 4.5 * 1$$

$$2005 = 18.5$$

$$Y_c = 14 + 4.5 * 2$$

$$2006 = 23$$

Projected to next 5 years (2007 - 2011)

$$Y_c = 14 + 4.5 * 3$$

$$2007 = 27.5$$

$$Y_c = 14 + 4.5 * 4$$

$$2008 = 32$$

$$Y_c = 14 + 4.5 * 5$$

$$2009 = 36.5$$

$$Y_c = 14 + 4.5 * 6$$

$$2010 = 41$$

$$Y_c = 14 + 4.5 * 7$$

Organizations involved for the growth of NR

The NR producing countries in the world has found 3 prominent organizations to promote the marketing of NR and to benefit each other. They are;

IRRDB (International Rubber Research Development Board)

IRRDB is a research and development network which brings together Natural Rubber Research Institute in virtually all the NR producing countries, covering 95% of world NR production. The Institute has attained a prestigious position in the international rubber scenario through its research contributions; RRII is a member of RRDB and actively participates in many international research programs. RRII has played a very important role in India achieving high productivity.

ANRPC (Association of Natural Rubber Producing Countries)

Association of Natural Rubber Producing Countries (ANRPC) is pleased to announce Republic of the Philippines as its member effectiveness from April 26, 2010.

IRSG (International Rubber Study Group)

In the early 1960's three insurance company claim executives were talking about the best way to manage catastrophic injuries and to provide the most appropriate medical care and rehabilitation. The claim executives knew if they could bring together other insurance rehabilitation experts they would have a wealth of experience and knowledge from which to draw. The Insurance Rehabilitation Study Group started in 1965, with 18 people representing 14 insurances companies, all gathered to share ideas and maintain rehabilitation as a free market enterprise. As IRSG's membership has grown, the intent has remained the same - to provide a forum of discussion and learning for concerned and active members.

The results and studies conducted by these organizations were highly beneficial for the development of rubber industrial sector – both plantation and manufacturing or consuming sector. The producers and consumers of NR were associated on a common platform to sort out the issues and to benefit each other. The feedback from the consuming countries was of great advantage for the development of quality parameters, packaging and presentation of NR in the world market.

SWOT ANALYSIS

Strength:

India is a developing country & can be most of the infrastructure required for export of NR from the country. Facilities like seaport / air cargo are easily available. Indian traders are familiar with trade practices and conversion with export formalities. The products manufactured in India are of equalent quality with international standards so that comparison of qualities is possible. The recent advancement in rubber industrial sector by the establishment of MNCs in India especially in tire & related sectors, automobiles, engineering goods etc made Indian products & commodities like NR familiar to foreign companies / institutions.

The support given by the Government & other financial institutions like banks and other agencies supporting the export of NR from India. The services rendered by Rubber Board under the Ministry of Commerce & Industry are of immense help as commended by a few exporters during the survey given else for

Government of India is supporting the exports in participation of international fairs, exhibitions & other events which provides an opportunity to present the Indian articles and commodities which will help to new markets.

Weakness:

Till 1990s India is a net importer of NR & Indian products were not known to foreign countries / market. Entering into export market, branding, maintaining the presents & share in the international market is a feculence task. The economic factors like valuation / devaluation of currencies, price fluctuations are of much importance to every exporters & it is more relevant to a developing country like India.

Though India has entered into the market quite a long time back the market information & feedback from major players like US & China were not yet fully obtained due to small quantity of operation. Though the quality of the products from India meet the requirement of packaging & presentations are far above when compared with other countries. It is a need of our to improve overall presentations & quality & to be best among the supply countries.

Opportunity:

There is a good demand for the NR in the International market. The production is 864500 metric tonnes where as the consumption is 871720 metric tonnes. The South East Asian countries contribute more than

70% of the total NR production in the world. Most of these countries were exporting the NR to consuming sectors in US & Europe. India has also made an attempt to explore this market ample opportunity is there but this has to be balanced with the domestic demand from manufacturers which provides value addition, employment & export of rubber products. The global recession can affect the consumption & export of NR however the quantity of export is reasonably less any fluctuation related to economic policies can be resolved. The concept of eco-friendly nature can increase the consumption of NR which will increase the demand also.

Threats:

The major threat is competition from other threat is competition from other NR producing countries like Thailand, Malaysia, Indonesia & Vietnam. A cost of production of NR in these countries is comparatively lower than that of India, which makes the supply from these countries cheaper. Further the customer relationship maintain by the exporters from other countries will be a sound & long term nature which is rather difficult to break & possible only by promotional & other measures. The market promotional measures made by other countries are very huge and unless India also maintain those measures in tandem penetration & maintaining the market share is a difficult task.

Competition from similar products Research & Development are being carried out all over the world to replace or substitute NR with synthetic rubber or modified polymer. Synthetic rubber being processed from petrol or crude oil is always found to be costlier but partial replacement with synthetic rubber is being practiced to improve decide properties. Similarly use of improved polymers & synthetic materials were used to improve properties of NR. Hence development of competitive products can result in reduction of application of NR & this is major threat for exporting.

In the present scenario on an in-depth SWOT analysis it can be concluded with some positive efforts the export of NR could be improve to a greater potential

- **TO GIVE SUGGESTIONS BASED ON THE FINDINGS OF THE STUDY**

India became an exporter of NR with an aggressive strategy from the year 1999 to 2000. Before that our country was a net importer of NR

- The market informs and trade practices related to NR was not known
- Efforts were made by the Government of India through Rubber Board and other organization to develop exporters of NR
- Incentives and supporting facilities were provided for boosting exports
- Based on the feedback the following information will be much useful for the improvement of exports from our country
- As such there are opportunities for export of NR from our country.
Development of the sectors can make value addition of our RM which very help for better price realization for the rubber farm house in our country

Chapter 4

FINDINGS, SUGGESTIONS AND CONCLUSION

Chapter 4

Findings, suggestions, conclusions

FINDINGS

The findings of the study are as follows;

- The main function of The Rubber Board is to improve the marketing of NR.
- Among 5 countries, all the 5 are major importers of NR from India.
- Out of 5 countries Malaysia is the major importer from India and the total quantity shows a positive growth.
- China is the front runner in export of rubber products in the world and the largest consumer of NR. The export of NR varies from 13314 during 2002 – 2003 to 20222 in 2007 – 2008.
- There is a negative growth in export to Sri Lanka however due to the difficult business conditions.
- The export of rubber from India to Malaysia was about 9801 metric tonnes in 2002 – 2003 and it enhances to 12092 in 2007 – 2008.
- The trade among India to Malaysia is high and it is related to economic factors, demand and price advantage.
- Germany is one of the technically sound markets for NR. The export of NR increase from 1375 in 2002 – 2003 metric tonnes to 2480 in 2007 – 2008.
- UK is the country where rubber industries are developed in a high interest growth rate and the product were export all over the world included India.
- Most of the NR requirement of UK was met by the import from the Malaysian companies who owned rubber plantation.

SUGGESTIONS

The suggestions of the study are as follows;

- The overall structure of the Rubber Board and rubber plantation sector with a trust to export of NR.
- Problems and prospects of the study within the short period of 6 weeks.
- Overall evaluation related to production, consumption, export and import were made in the study.
- A forecasting also made on the future availability of NR which is directly related to export and import.
- The export market during the past few years were studied and the trend analysis also given.
- It is presume that the demand for NR will increase in the coming years which will increase the export of NR from our country.
- Concerted efforts are to be made by all stake holders from producers, processors, dealers, Rubber Board and The Senior officials of the RB to promote exports of NR in a high manner.
- Government of India is providing incentives and supports for increasing exports which will bring valuable for next years.
- Continuance of incentives and benefits will be a critical factor to enhance exports.
- When domestic prices are high traders of NR prefer to enter into contracts with domestic companies.
- Similarly when domestic prices are high traders of NR prefer to enter into contracts with domestic companies.
- Economic and export policies of different countries may lead to change in quality of imports.
- Demand for the products from various countries may reflect in the quantity of imports.

CONCLUSION

The project entitled “Export of NR from India – problems and prospects” was initiated as a part of the MBA study.

First up all a preliminary investigation about the rubber sector in India and the whole world was made. Later the data related to production, consumption, imports and exports of NR in India were examined in detail. Overall trend analysis is carried out to study the prospects. The policy matters and other benefits that are supporting the export possibilities for NR were evaluated. A SWOT analysis of the export sector for NR was made to study the factors influencing and controlling the sector. Based on the above it is observed that the Global demand for NR is reasonably bright. The demand for NR will show a positive trend in consumption. Any increase in production and surplus generate can be exported to countries to which India has already made some preliminary path way for exports. Also dumping from other NR producing countries in the past WTO periods can also be encounter by the promotion of this export sector.

Continuation of export incentives, subsidies, promotional measures etc will be a supporting factor to enhance the export sector of NR in India.

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