

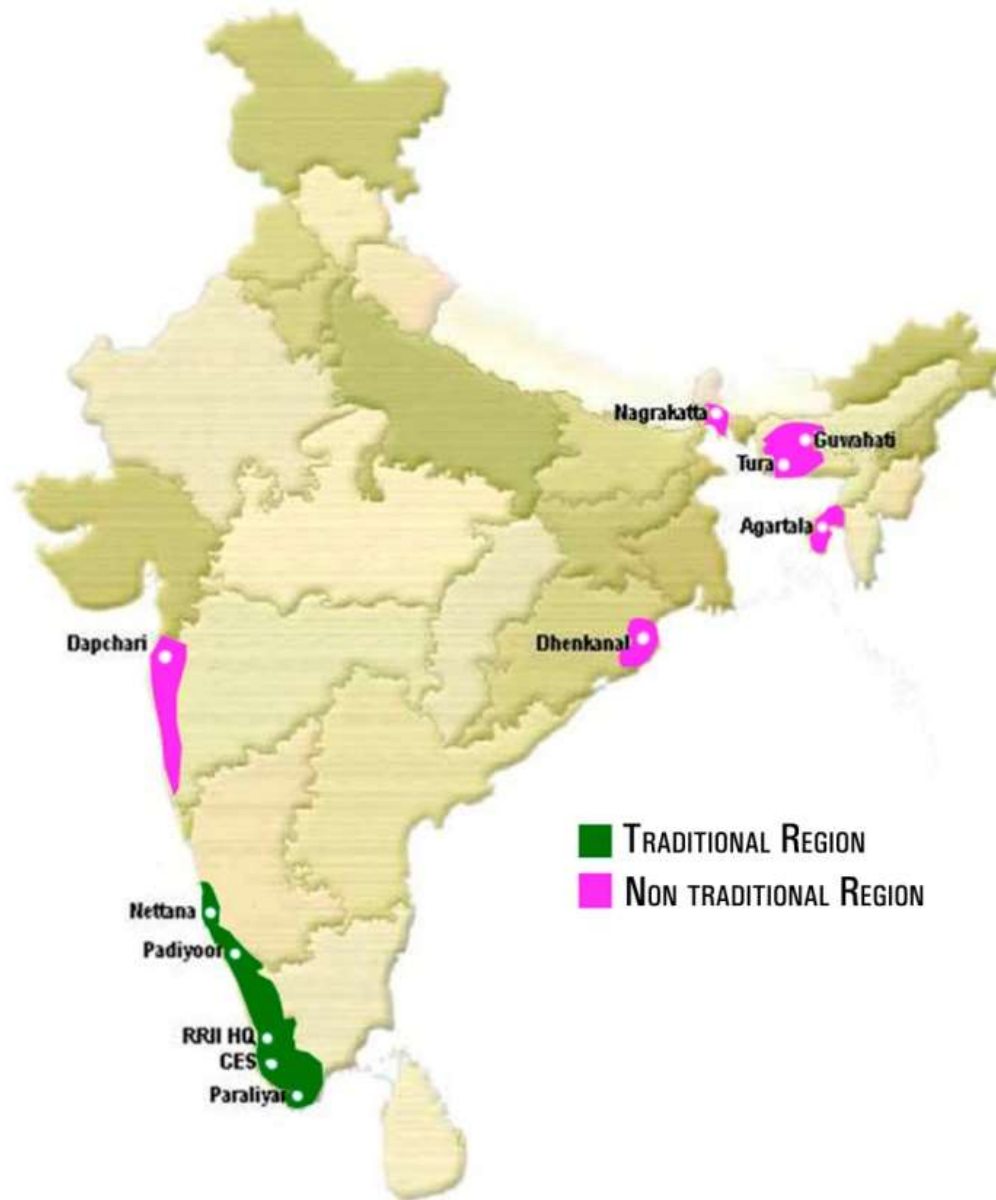
India

Workshop on Biosecurity Implementation of South American Leaf Blight of Rubber in the Asia-Pacific Region

**January 12 – 16, 2015
At Bangkok, Thailand**

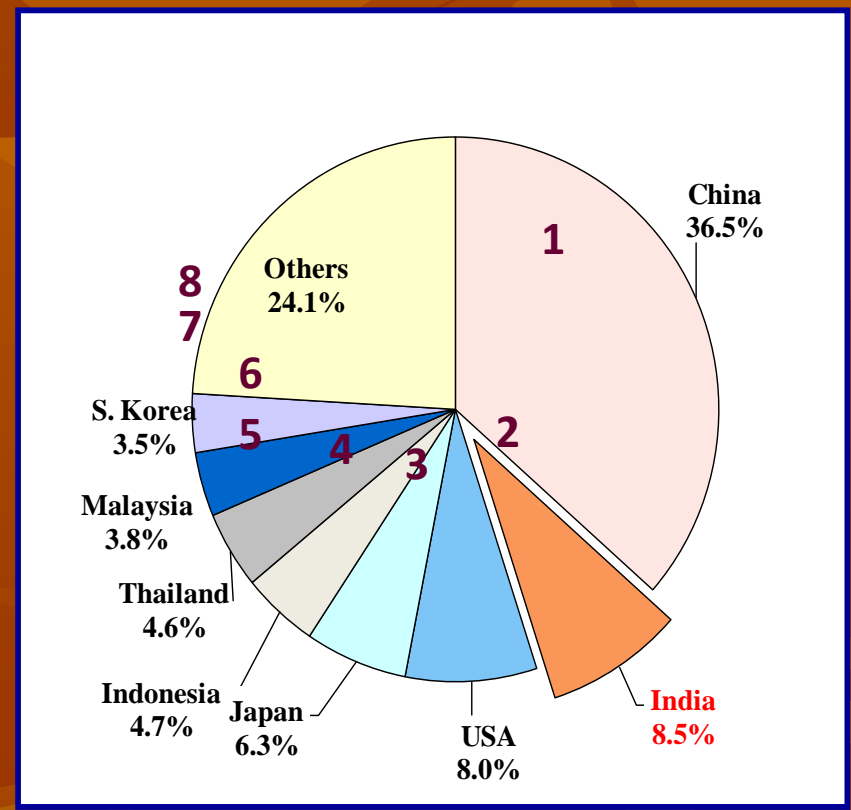
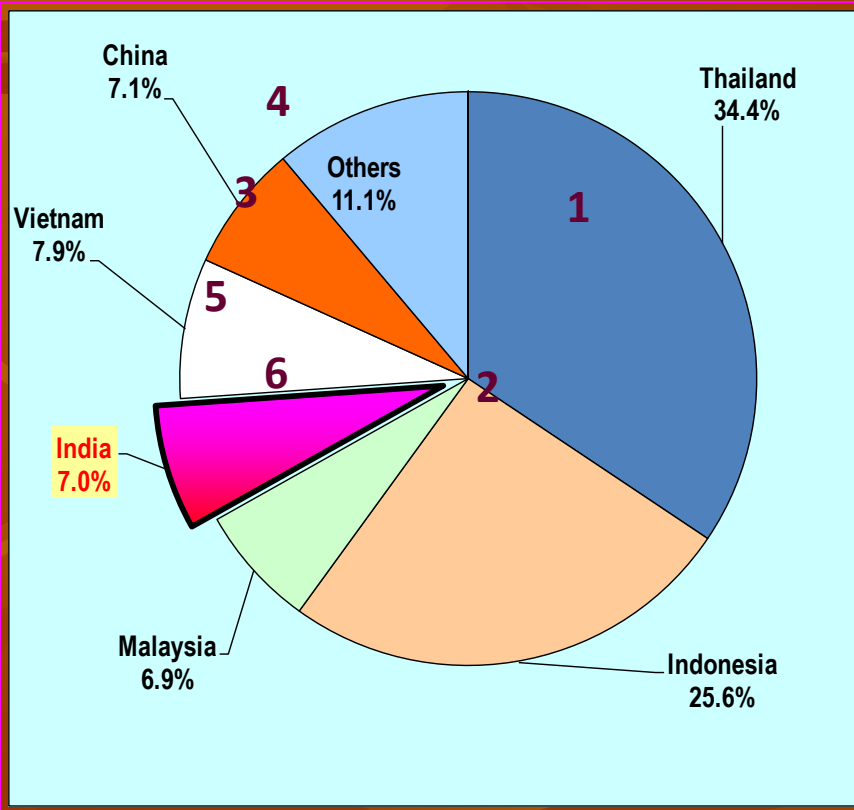
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NR GROWING REGIONS OF INDIA



Introduction

India is the fifth largest producer and second largest consumer of NR (2013)



- Natural Rubber accounts for 67% of rubber consumption in India whereas globally the share of NR in rubber consumption is only 42%.
- SR production and consumption in India were 112,886 and 481,000 tonnes respectively in 2013-14.
- India has fourth place in gross elastomer (NR+SR) consumption.
- Production and consumption of RR accounted for 133,520 and 123,725 tonnes in 2013-14.

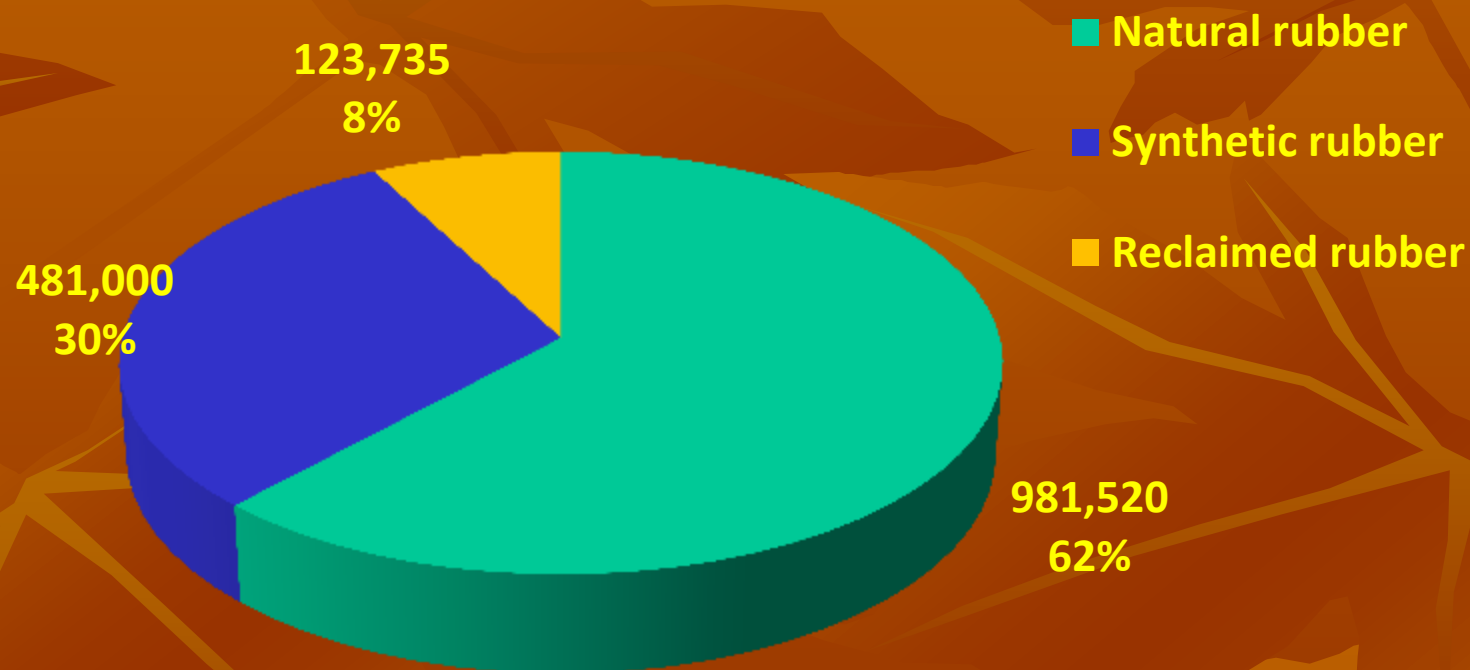
2012-13

Turnover of rubber manufacturing industry = Rs 66,000 Crore

Export of rubber products = Rs 15,532 Crore

Import of rubber products = Rs 7,277 Crore

Composition of rubber consumption in India - 2013-14 (tonne)



NR : SR Ratio

India = 67:33

World = 42 : 58

Natural rubber cultivation in India – 2013-14

Region	Planted Area (ha)	Relative share (%)	Production (Tonne)	Relative share (%)
Traditional region (Kerala & Tamil Nadu)	574,000	73.9	768,900	91.1
North East	148,000	19.1	47,200	5.6
Others	54,000	7.0	27,900	3.3
Grand Total	776,000	100.0	844000	100.0

Summary profile of Indian NR sector

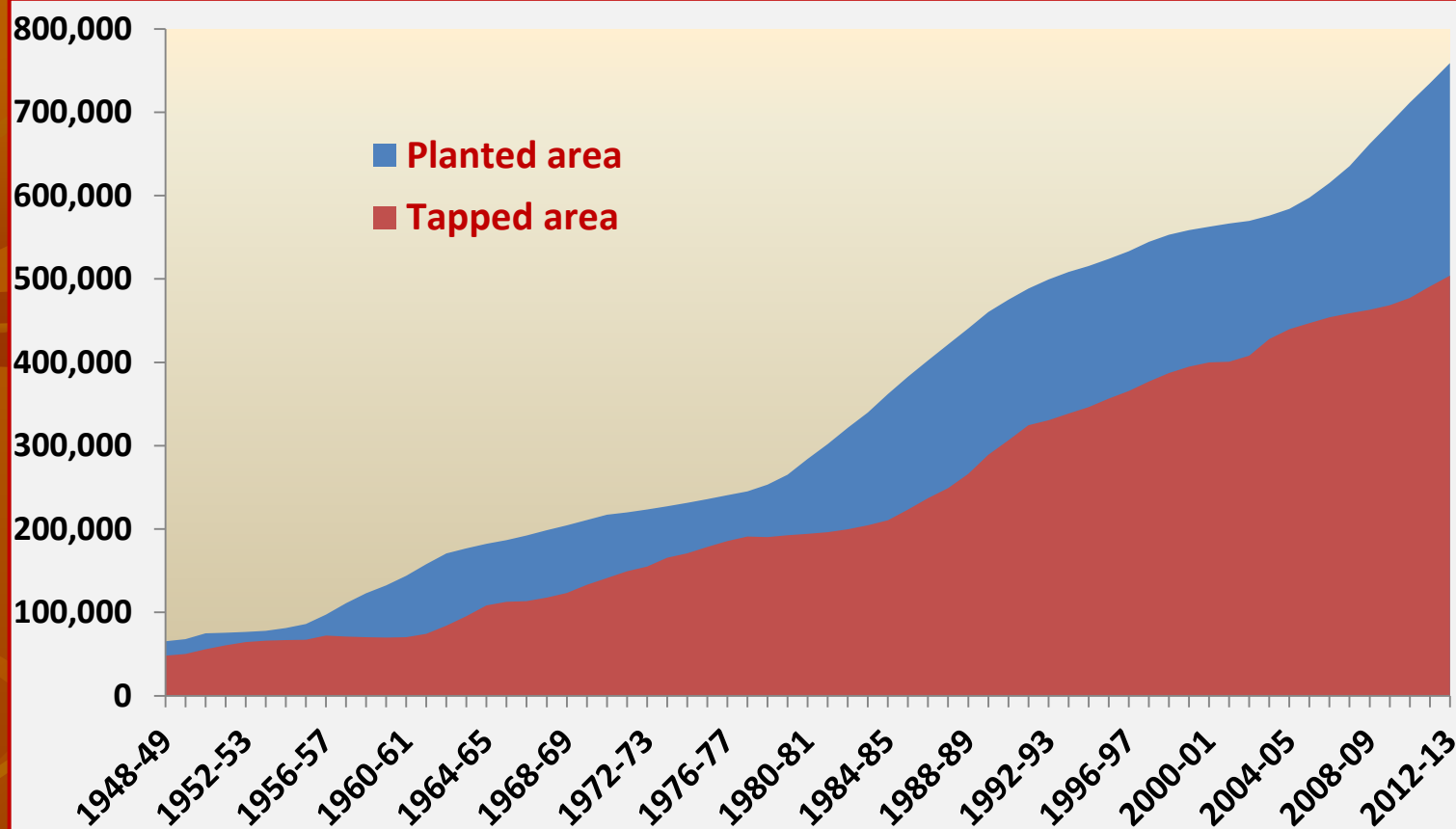
- ◆ 776,000 ha rubber planted area
- ◆ 1.25 million smallholdings (below 10 ha)
- ◆ 90% of planted area and 93% of rubber production in smallholding sector
- ◆ 98% of holdings below 2 ha
- ◆ Average size of holding of 0.55 ha
- ◆ 537 Estates
- ◆ Daily employment – 479,000 persons

Dealers	-	9533
Processors	-	116
Consumers	-	4400

Cooperatives	-	265
Rubber Producers Societies	-	2340
Self Help Groups	-	1684

18 processing/trading companies in the RPS Sector

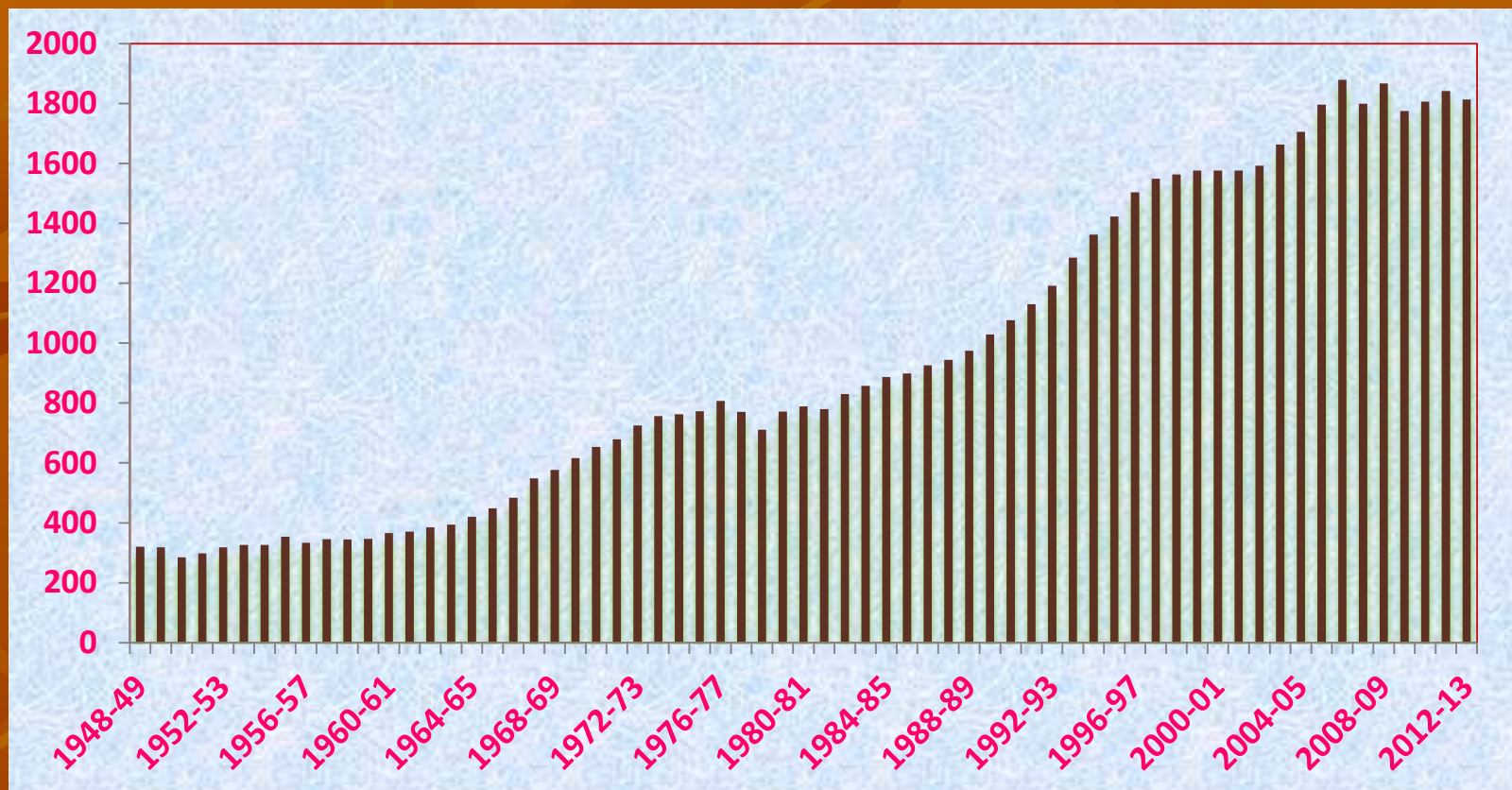
Growth in NR planted area during Five Year Plans



Growth in NR planted area during Five Year Plans (%)

1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th
2.8	10.9	5.4	2.1	2.2	6.4	4.9	1.8	1.2	1.7	3.6

Productivity of NR (kg/ha)

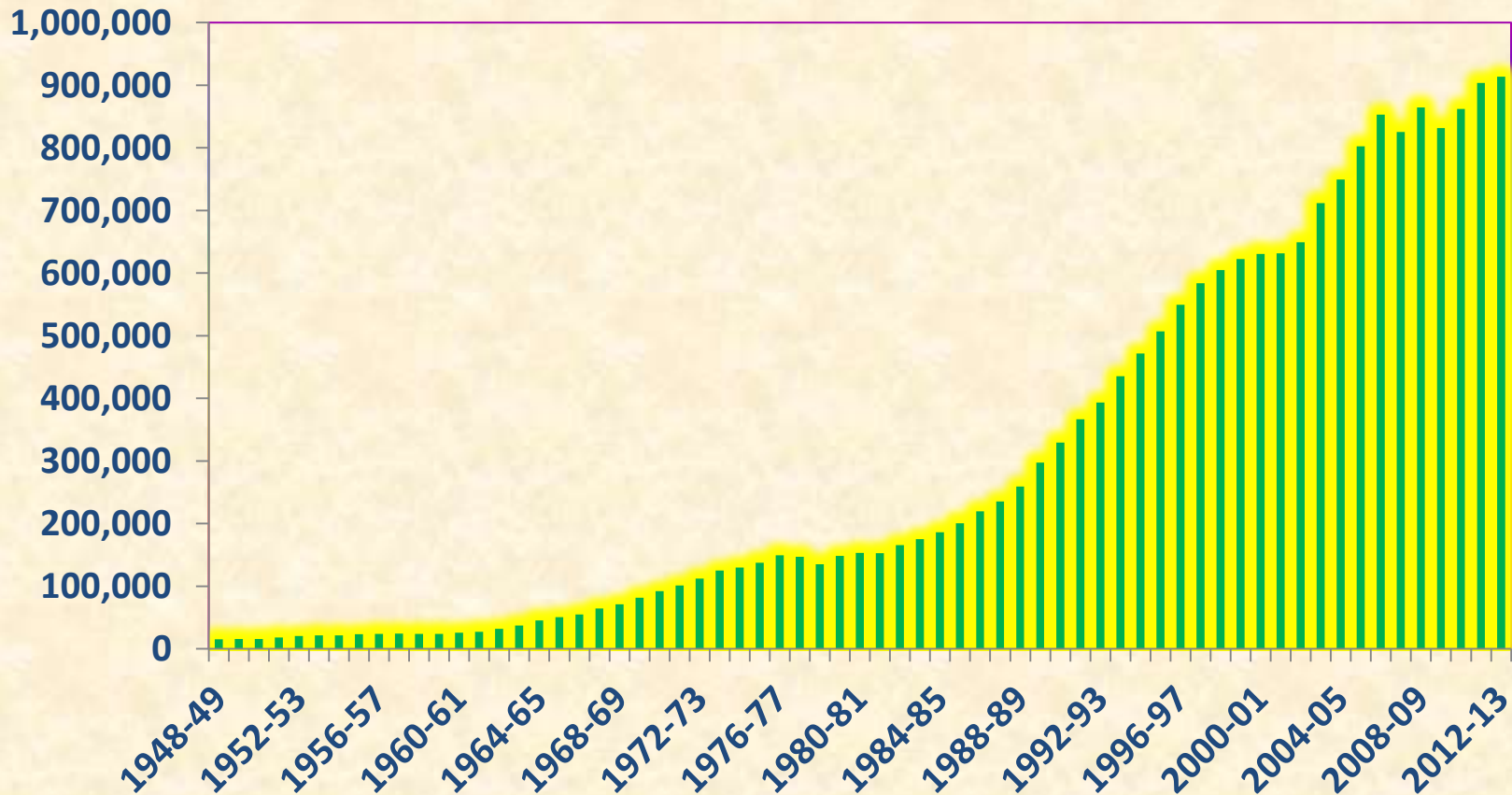


Growth in productivity during Five Year Plans (%)

1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th
4.5	0.7	4.2	5.6	-1.1	2.8	3.0	5.9	1.0	3.6	-0.3

India recorded highest productivity in world from 2006 to 2012

Production of NR (MT)



Growth in NR production during Five Year Plans (%)

1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th
8.5	1.6	14.6	12.0	1.7	4.7	9.8	8.4	2.8	6.2	1.2

Key statistics on Indian NR sector

Year	Area (ha)	Production (tonne)	Productivity (Kg/ha)	Export (tonne)	Import (tonne)	Consumption (tonne)
2012-13	759,000	913,700	1813	30,594	217,364	972,705
2013-14	776,000	844,000	1629	5,398	325,190	981,520

NR production and productivity were relatively low in 2013-14 due to prolonged monsoon, incidence of leaf diseases and low prices

2013-14

Value of NR production = Rs 14,000 Crore

Value of NR export = Rs 85 Crore

Value of NR import = Rs 5025 Crore

Indian NR Sector – Growth

Indicator	1950-51	2013-14	Annual Growth Rate (%)
Area (ha)	74915	776000	3.8
Production (tonne)	15830	844000	6.5
Productivity (kg per ha)	284	1629	2.8
Consumption (tonne)	19854	981520	6.4

New planting of rubber proposed for Northeast States (ha) during 12th Five Year Plan (2012-17)

■ Tripura	16250
■ Assam	10000
■ Meghalaya	3750
■ Nagaland	1500
■ Manipur	1000
■ Mizoram	1000
■ Arunachal Pradesh	1500
Total	35000 ha.

Biosecurity Strategy to curb SALB Incursion

- Seeds/plants/budwood and any other plant Material of Rubber is prohibited import from Tropical America including part of Mexico, North of the Tropic of Cancer.
- From other countries import is permitted only with recommendation, supervision, monitoring and testing by the Director, Rubber Research Institute.
- Post-entry quarantine for a period of one year.
- Offshore treatment of seed and other planting material with suitable systemic fungicide prior to dispatch of the consignment .

Existing Steps to Prevent Entry of SALB

- Law in force; Plant Quarantine (Regulation of import into India) Order, 2003 notified under Destructive Insects & Pests Act, 1914.
- Based on PRA conducted, prohibited import from Tropical America including part of Mexico, North of the Tropic of Cancer.
- Restricted import from Non-SALB area routing through Rubber Research Institute of India.
- Central Integrated Pest Management Centres have been established in in Rubber growing States apart from other States.

Existing Steps --

- State Agriculture Extension officials and CIPMCs conduct surveillance and send periodical report.
- Monthly Pest / disease situation is reported by State Agriculture Extension functionaries and CIPMCs to National Government.
- Twice in a year, Zonal Conference is held to discuss pest management strategies and pesticides' requirement on various crops.
- For awareness and capacity building, training programmes are conducted in two seasons (Kharif & Rabi) in a year.

Existing Steps --

- Import is restricted through 5 major Plant Quarantine Stations viz. Amritsar, Chennai, Kolkata, Mumbai and New Delhi only.
- These Stations are provided with ultra modern diagnostic equipments and testing facilities for imported plant materials to prevent entry of pests/diseases at border.



ON-LINE RUBBER CLINIC

<http://clinic.rubberboard.org.in>

A distance diagnostic and information system for the rapid diagnosis and management of pests and diseases of natural rubber

Home page



DISSEMINATION OF INFORMATION

Lab to Land Pathway

RRII



**Periodicals &
Mass media**



**Training programmes to
Extension Officers**



**Arranging
Farmer
Scientist
interaction**



- **Surveys**
- **Campaign meetings/Seminars**
- **Field demonstrations**
- **On-line Rubber clinic**

Disease management capabilities

Success story in managing epidemics

Corynespora disease eradication campaign 1999

1996	Epidemic observed in Karnataka state, India
1997- 1998	Spray trials
1998	Demonstration of spraying
1998	Survey : 50-70% disease incidence
1999	Disease eradication campaign
2006	Constituted Corynespora Task Force with the aim to contain the pathogen and rapid spread of the disease.

Training Programmes

Rubber Plantation Development Programmes

- **Short term training on rubber cultivation for small growers**
- **Short term training on rubber cultivation for estate sector**
- **Short term training on rubber cultivation for NE & NT regions**
- **Advanced training on rubber cultivation & rubber plantation management**
- **Specialised training on rubber plantation management**
- **Training for extension officers on disease management**

General Training Programmes

- Training on pest and disease control
- Training on spraying and maintenance of sprayers
- Training on nursery management
- Training on planting and upkeep
- Training on latex harvest technology

Training/exposure/awareness on Diseases & Pests and its control from Jan - Dec 2014 at RTI

Particulars	No. of programmes	No. of beneficiaries
In house trainings	47	1063
Sastradarshan	28	440
Total	75	1503

Impact on Rubber if SALB Incursion Occurs

- Approximately a million households in India are directly dependent on natural rubber plantations for their livelihood.
- Much more is the number of people dependent on natural rubber processing and product making sectors in the country.
- In the North Eastern States of India, natural rubber cultivation has greatly helped to reclaim ecosystems that were severely degraded due to intensive shifting cultivation practiced by the native tribes.
- Blight being devastating disease may lead impact like Coffee plantation replaced by Tea plantation in Sri Lanka in 1879 due to **Coffee rust – *Hemilia vastatrix***



THANK YOU