Approach Document to Vision 2020

VISION 2020 Project Office

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	THE CASHEW EXPORT PROMOTION COUNCIL OF INDIA **(SPONSORED BY THE GOVT.OF INDIA)** **POST BOX NO.1709, CHITTOOR ROAD,** **ERNAKULAM SOUTH, KOCHI – 682 016, KERALA, INDIA**

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Now, at the risk of being misunderstood, I will give you the simplest of all possible examples of self-help. The good Lord has not disinherited any of his children and as far as India is concerned he has given her a variety of trees, unsurpassed anywhere in the world. There are trees for almost all human needs.

One of the greatest teachers of India was the Buddha who included in his teaching the obligation of every good Buddhist that he should plant and see to the establishment of one tree at least five years. As long as this was observed, the whole large area of India was covered with trees, free of dust, with plenty of water, plenty of shade, plenty of food and materials. Just imagine you could establish an ideology which would make it obligatory for every able bodied person in India, man, woman and child, to do that little thing – to plant and see to the establishment of one tree a year, five years running.

This, in a five year period, would give you 2000 million established trees. Anyone can work it out on the back of an envelope that the economic value of such an enterprise, intelligently conducted, would be greater than anything that has ever been promised by any of India's five year plans. It could be done without a penny of foreign aid; there is no problem of savings and investment. It would produce foodstuffs, fibres, building material, shade, water, almost anything that man really needs.

E.F. SCHUMACHER

SMALL IS BEAUTIFUL

THE PROBLEM OF EMPLOYMENT IN INDIA

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PREFACE

Formulating a vision is an evolved process. We, in the cashew industry are a practical lot. Dominated by the idea of trading, it is always 'today' for us and 'this lot and next' on our minds. At the most, the horizon is a year.

Cashew is difficult. It is totally incomprehensible for an outsider. For an insider, it is ever intriguing as it never responds to certainty. Cashew is so full of variables, that there is nothing that can be called a 'constant'. For an operator sometimes, it's an existential problem. Survival itself is the goal.

We, at CEPCI arrived at the Vision 2020 in 2006. A statement was prepared by a small group at Kaju India. Over 500 man years of experience was around that table, as words of enthusiasm and hope tumbled out.

The law of attraction is a law of nature. After attraction it can be a passing interest or you can be attached. Are you attached to cashew or is cashew attached to you? Probably nature decides. I can only feel nature chose me for cashew as far as I can recall.

My first encounter with cashew was at the age of five, when I saw a few raw cashew nuts kept in the rice container to prevent bugs. In younger days we played with raw cashews knocking them off with fingers. During travels with my father I could see fascinating sights of cashews lying in bags, waiting to be sold, along with other forest produce.

Forays into cashew gardens with cousins during the season and knocking off fresh cashew apples to be savored in the sizzling day temperatures of the Kanara summer - are my fond childhood memories.

As a teenager, stepping into a cashew factory, I was amazed by the minute attention and concentration of a hundred workers. Division of labour was experienced without even knowing the theory. The typical factory was fire and smoke, frenetic activity all around! The term industry was seen visibly.

Fresh out of college into the cashew world meant forgetting the theory of commerce and accounts to go into apprenticeship. This was a different world of practical relationships between suppliers and customers and transformation of produce; a unique field for action and entrepreneurship.

I cannot say whether I expanded or cashew expanded me. The sky seemed to be open and unlimited. Visualizing for cashew became a passion. My Father, G. Sadananda Prabhu encouraged, nurtured and advised me. He was a visionary every step of the way – for our business, for the community he lived in and for the cashew industry as a whole. Knowledge tempered with wisdom, he was forever a visionary.

Once, he went to the CEPCI in Kochi for a formal meeting with the Additional Secretary Commerce. The country was exporting Rs 400 crores worth of cashews then. He announced before the audience, that India's exports would touch Rs 1000 Crores in a few years. It just happened within three years of his statement.

Involvement with CEPCI was an extension of interest in trade associations. This grew under the umbrella of The Kanara Chamber of Commerce and Industry - Mangalore and was enhanced by The Mangalore (now Karnataka) Cashew Manufacturers Association, a platform for dynamic interaction with our city's great businessmen. The association with CEPCI came with formal membership in the year 1984, when I began exports.

A chance visit to the University of Agricultural Sciences, Ullal, Karnataka on its 25th Anniversary unfolded the interaction with cashew research and development. Its founder, Dr. V.N.Madhava Rao visited our factory and his speech at the program was a resounding call for deepening the knowledge in cashew cultivation and developmental aspects.

Since then, it has been a continuous interaction in various capacities and times with all stakeholders in cashew. This Approach Document is a product of these interactions on numerous occasions and I had the benefit of information and knowledge from great people in various institutions and in public and private, who gave a never ending insight into one of nature's wonders.

The vision was born under the charming Chairmanship of Mr. Walter D'Souza, a lion among men and the Mangalorean with a universal heart and mind. His constant goading created the content for various programs and the vision was born.

This opportunity would not have been available but for the stalwarts at the Committee of Administration. Much as I was shy of undertaking this assignment, Late Sri P. Gangadhar Pillai and Sri Krishnan Nair prevailed on the committee to have this entrusted.

The KCMA readily capitulated to host the Vision Office and an agreement with CEPCI was arrived to house the Office.

The consultations available at various congresses and meetings have been incorporated along with the content of presentations. Interactions of over 3 decades with people's representatives, dignitaries, officials and farmers have all been of great value in the making of the approach. Interactions have gone deeply not only into me but into the industry and the cashew economy.

The vision document has been completed with close consultation of colleagues in Industry.

The vision document has been created with minimal resources but has information generated over time. It requires to be worked on.

This approach is for cashew and humanity. I would leave it to readers to form an opinion on the document. The approach is a document for action. It would have well served its purpose if 25 million trees were to bloom in 2020.

Mangalore
January 2010

G.Giridhar Prabhu
Convener, Vision 2020
Cashew Export Council of India

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My close cashew farmers with whom I have interacted over a long period.

Late Dr E.V.V. Bhaskar Rao and **Dr M.G. Bhat Director, NRCC and Scientists.**
Vice Chancellors of Agricultural Universities and **Scientists** at CPCRI, and all Agricultural Research Stations.

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This Approach is dedicated to the Memory of Late Sri Poyilakada Gangadharan Pillai.

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I am what I am today due to my ever loving **Mother** and **Father** whose vision and wisdom are forever.

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LIST OF ABBREV IATIONS

AFI	Association of Food Industry
ANUGA	Name of Fair in Germany held every Alternate year with SIAL
CAGR	Compound Annual Growth Rate
CENTA	Central Edible Nut Association HQ London
CEPCI	The Cashew Export Promotion Council of India, Cochin
CRS	Cashew Research Stations
CSIR	Council for Scientific and Industrial Research
DCCD	Directorate of Cashew & Cocoa Development, Cochin
EIA	Export Inspection Agency
EPC	Export Promotion Council
FAO	Food & Agricultural Orgainsation
FDA	Food & Drug Administration
FFA	Free Fally Acid
FLO	Fair Trade
FOB	Free on Board
FSMS	Food Safety Management System
GCMA	Goa Cashew Manufacturers Association
GDP	Gross Domestic Product
GMP	Good Manufacturing Practices
GNP	Gross National Product
GOI	Government of India
HACCP	Hazard Analysis and Critical Control Programmes
HYV	High Yielding Variety
ICAR	Indian Council of Agricultural Research
INC	International Nut Council
IPQC	In Process Quality Control
KCMA	The Karnataka Cashew Manufacturers Association. Mangalore
MCMA	Maharashtra Cashew Manufacturers Association
MDA	Market Development Access
MOU	Memorandum of Understanding
Mts	Metric Tonnes
NABARD	National Bank for Agriculture & Rural Development
NAIP	National Agricultural Innovation Project
NGO	Non Government Organisation
NHM	National Horticulture Mission
NRCC	National Research Centre for Cashews, Puttur
NSSO	The National Sample Survey Organisation, New Delhi
OECD	Organisation of Economic Developed Countries
QMS	Quality Management System
RCN	Raw Cashewnut
RTS	Ready to serve
SHG	Self Help Groups
SIAL	Trade Fair in France
SME	Small and Medium Enterprises
SOP	Standing Operating Procedures
UAS	University of Agricultural Sciences
UK	United Kingdom
UN	United Nations
UNECE	UN Economic Commission for Europe
UNIDO	United Nations Industrial Development Organisation
USA	United States of America
VAT	Value Added Tax
WI	Work Instructions

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3	KCMA Vision 2020
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CHAPTER - 1

CEPCI AND THE CASHEW VISION

Cashew is one of the most fascinating produce of nature. A tropical evergreen tree crop, it is the discovery of the 16th century.

Transmitted via seafarers, cashew got transplanted into Africa, India and the Near East Asia. Grown prolifically at latitude between five and twenty degrees North and South of the Equator, it is produced at different times in the Northern and Southern Hemispheres.

India had an overwhelming role in the cashew economy which developed in the 20th century. It is the visible demonstration of Indian entrepreneurship with a global market. Commercial production of cashew was launched in Western and Southern India in the 1910's. India dominated the scene till the mid 1970's.

There is immense literature on the cashew plant and production; hardly, any on innovation, entrepreneurship, industrial history, role of cashew in rural and urban lives. Cashew has remained unknown, except that it is a delight to eat. How can cashew be away from history, geography, culture, economics, sociology and politics? It is best left alone to its mysterious ways.

In India, the cashew industry is synonymous with the backwaters town of Quilon now called Kollam. Mangalore is known in the cashew world for its differentiation, industrial and knowledge development. Goa and Malvan, the cradle of cashew conversion are known for specialty and quality. The developments in Tamilnadu, Andhra and Orissa are less than three decades old.

The world of cashew today has over 27 producing countries and over a hundred consuming countries. Cashew travels a long arduous way before it is picked and enjoyed by a consumer in US, Europe or Japan. It is perceived to be a "luxury" and an "expensive" product, though it can hardly be called so, on closer examination.

Cashew was a major portion of India's basket of agricultural produce exports. The industry is attached to The Cashew Export Promotion Council of India under the aegis of the Ministry of Commerce, Government of India. Headquartered in Kochi since the 1960's, it serves the interest of the cashew industry for export promotion.

CEPCI organized the World Cashew Congress on 23-25 February 2001 in Cochin. A cashew Buyer Seller Meet called Kaju India was conducted in Kovalam on 16-17th September 2006.

Energized by the presence of delegates, a dozen stakeholders under the leadership of Mr. Walter D'Souza, Chairman of the CEPCI in that year, sat around an impromptu table in the conference hall for probably the fastest developed Vision Document to be adopted at the Conference. A few finishing touches and the Vision 2020 was born. It was released by the Hon'ble Union Minister for State for Labour, Mr. Oscar Fernandes the next day and became a document.

The Vision seemed to be a distant horizon for two years. Mr. D'Souza's persuasion took it to a stage forward.

A Vision 2020 project office was inaugurated on 22nd November 2008. The work began on 1st February 2009. There were a series of approaches and questionnaires. There were a lot of formal and informal discussions preceding the preparations and during the course of the year.

A signification portion of the inputs came from the Papers and Presentations made at Kaju Quest in Goa.

The overall emphasis is on the growth of raw cashew production without which growth in exports and consumption is not possible.

The direction is towards action.

CHAPTER - 2

PROJECTING THE VISION

CEPCI released a vision in 2006; which is reproduced here:

1. **CEPCI SHALL STRIVE TO INCREASE INDIA'S MARKET SHARE, REGAIN ITS DOMINANT STATURE IN THE WORLD MARKET AND MAINTAIN THE NUMBER ONE POSITION IN ALL RESPECTS : PRODUCTION, PROCESSING, IMPORTS AND EXPORTS.**

2. **CEPCI VISUALISES EXPORT OF 275,000 MTS CASHEW KENELS IN 2020 AS AGAIN ST THE CURRENT 115,000 MTS.**

3. **THIS REQUIRES INDIAN RAWNUT PRODUCTION TO BE INCREASED TO 1.9 MILLION MTS WITH IMPORTS TO BE MAINTAINED AT 0.50 MILLION MTS. THE CEPCI HEREBY REQUESTS THE GOVT OF INDIA TO ENSURE THE ABOVE PRODUCTION.**

4. **THIS TRANSLATES TO EMPLOYMENT GENERATION OF 850 MILLION MAN DAYS FOR 1.25 MILLION WORKERS & SUSTGAINABLE HORTICULTURE BY ONE MILLION FARMERS.**

5. **CEPCI WILL STRIVE TO ENHANCE PRODUCTIVITY AND COMPETITIVENESS IN THE CULTIVATION & POST HARVEST TECHNOLOGY OF RCN BY MOTIVATING ALL DEPARTMENTS UNDER THE MINISTRIES (CENTRAL & STATE) OF AGRICULTURE.**

6. **CEPCI WILL FORMULATE GOOD MANUFACTURING PRACTICES (GMP) FOR CASHEW INDUSTRY ON PAR WITH WORLD STANDARDS BY MARCH 2007 TO ACHIEVE ZERO DEFECTS BY DECEMBER 2007.**

7. **CEPCI WILL INTENSIFY PROGRAMS FOR TECHNOLOGICAL UPGRADATION & MODEFRNISATION OF THE CASHEW INDUSTRY TO MEET BUYERS' EXPECTATIONS.**

8. **PACKAGING & PRESENTATION OF CASHEWS WILL BE IMPROVED & ENHANCED TO ADD VALUE FOR CUSTOMERS.**

9. **CEPCI WILL WORK TOWARDS QUALITY CERTIFICATION % AND RATING FOR CASHEW EXPORTERS.**

10. **EXPLORING OF NEW MARKETS : NUMBER OF COUNTRIES TO WHICH CASHEWS ARE EXPORTED FROM INDIA BE INCREASED FROM 60 TO 125.**

11. **CEPCI WILL TARGET 50% CAGR IN EXPORTS TO 20 FOCUS COUNTRIES IN THE NEW MARKETS TO BE EXPLORED.**

12. **CEPCI WILL STRIVE TO ENSURE THAT 20% OF THE CASHEWS EXPORTED WILL BE VALUE ADDED & MARKETED WITH "MAD IN INDIA" BRAND.**

13. **CEPCI WILL INCREASE AWARENESS ABOUT NUTRITION IN CASHEWS TO TARGEGT GFROUPS & BENEFITS OF CASHEWS TO A LARGER AUDIENCE. IT WILL INITIATE NECESSARY STUDIES ON NUTRTION IN CASHEWS TO SUBSTANTIATE, VALIDATE & CONFIRM THE BENEFITS TO THE CONSUMER.**

14. **CEPCI WILL COMMENCE MULTILATERAL INITIATIVEST TO FOSTER CO-OPERATIVE & COLLECTIVE EFFORTS TO PROMOTE THE CONSUMPTION OF CASHEWS FOR HEALTHY DEVELOPMENT OF THE WORLD CASHEW ECONOMY.**

15. **CEPCI WILL INITIATE EFFORTS TO MAXIMISE USAGE & EXPORT OF ALL OTHER CASHEW PRODUCTS LIKE CASHEW APPLE PRODUCTS, CNSL & ITS BY – PRODUCTS.**

16. **CEPCI WILL CONTINUE TO CREATE AN ATMOSPHERE CONDUCIVE TO ENTHUSE SELLERS TO MEET & SATISFY BUYERS REQUIREMENTS THROUGH EFFECTIVE AWARENESS PROGRAMS FOR THE INDIAN CASHEW INDUSTYR.**

The statement made earlier has a combination of vision and objectives. To have a greater clarity, a renewal of the vision statement is hereby submitted to the cashew community.

This is only a draft and requires considerable deliberations before it can be adopted for the Indian cashew sector.

The objectives have also been framed. In the light of the approach document to follow, the CEPCI must bring in clarity to the objectives from the adopted vision statement by redefining the objectives. They must be specific, measurable and achievable, reasonable and time bound.

The renewed draft Vision statement is as follows:

1. **INDIA WILL BE IN A DOMINANT POSITION OF BEING NUMBER ONE IN CASHEW PRODUCTION, MANUFACTURE, CONSUMPTION, IMPORTS AND EXPORTS IN THE WORLD IN 2020**

2. **ENHANCE PRODUCTIVITY AND COMPETITIVENESS IN THE CULTIVATION AND POST HARVEST TECHNOLOGY OF RAW CASHEW NUTS**

3. **TECHNOLOGICAL UPGRADATION AND MODERNIZATION OF THE CASHEW INDUSTRY TO GLOBAL BEST STANDARDS FOR EXPORTS**

4. **EXPANSION OF TRADITIONAL AND NEW MARKETS TO MARKET ADDITIONAL PRODUCTION WITH VALUE ADDITION**

5. **ENHANCE OVERALL VALUE IN THE CASHEW ECONOMY TO MEET MILLENNIUM DEVELOPMENT GOALS**

OBJECTIVES:

1. Export of 275,000 MT cashew kernels in 2020, as against the current 115,000 MT.

2. Indian raw nut production to be increased to 1.9 million MT with imports maintained at 0.70 MT or more.

3. Sustainable horticulture by one million farmers.

4. Employment generation of 850 million man days for 1.25 million workers and achieve zero defects by December 2015.

5. Good manufacturing practices (GMP) for cashew industry on par with world standards

6. Improvement in packaging and presentation of cashews in the farm and industrial sectors to value for customers.

7. Quality certification and rating for cashew exporters

8. Number of countries to which cashews are exported from India shall be increased from 60 to 125.

9. CEPCI members will target 50% CAGR (Compounded Average Growth Rate) in exports to 20 focus countries in the new markets to be explored.

10. CEPCI members will strive to ensure that 20% of the cashews exported will be value added marketed with "Made in India" brand.

11. CEPCI will increase awareness on nutrition in cashews for a larger audience.

12. It will initiate necessary studies on nutrition in cashews to substantiate, validate and confirm the benefits to the consumer.

13. Multilateral initiatives to foster cooperative and collective efforts to promote the consumption of cashews for healthy development of the world cashew economy.

14. CEPCI will initiate programs to maximize usage and export of all other cashew products like cashew apple products, CNSL and it's by products.

15. Effective communication programs for the stakeholders in cashew in India and the world.

CEPCI must circulate the draft of vision document and objectives along with the approach to the stakeholders. This will enable the CEPCI to adopt this as an actionable document at an appropriate time in the near future.

CHAPTER - 3

RAW CASHEWNUT PRODUCTION

THE CURRENT RATE OF GROWTH IN RAW CASHEWNUT (RCN) PRODUCTION IS NOT KEEPING IN PACE WITH DEMAND FOR RAW CASHEWS FOR THE INDUSTRY AND GROWING GLOBAL AND INDIAN CASHEW CONSUMPTION. A STUDY HAS TO BE INITIATED ON COMPETITION FOR LAND IN TRADITIONAL AREAS BETWEEN ALTERNATE CROPS AND URBAN DEVELOPMENT.

3.1 The current rate of growth in Raw cashew nut production is not keeping in pace with demand for raw cashew nuts for the industry.

3.2 Industrial capacity in our country has increased to absorb the increased output of cashew kernels. The market for cashew kernels has expanded.

3.3 Global and Indian cashew kernel consumption has grown at a healthy pace. This has given fair price to producers, a healthy input to manufacturers and continuous supply to purchasers.

3.4 The Cashew Export Promotion Council of India (CEPCI) must initiate a study on the patterns of raw cashew nut production in the cashew growing districts. Raw cashew nut production in the future for exports must be mapped.

3.5 The focus should be that; competition for land in traditional areas to alternate crops like rubber, coconut and areca nut and pressures on land urban development, industrialization, mining and the like.

3.6 The State of Kerala which was a national leader has steadily declined in RCN production. The main reason has been that the prices and realization for rubber have improved dramatically. The Government support to rubber plantation is lucrative.

CURRENT RAW CASHEW PRODUCTION HAS NO CONFIRMATION, VALIDATION OR MEASURE OF FORECAST AND PROCUREMENT AND USAGE SCATTERED INTO MORE THAN 2500 OPERATORS IN SEVEN STATES.

3.7 It is very difficult to determine the actual production of raw cashew nuts in the country. The rapid growth in small and micro units in cashew growing areas has resulted in informal procurement and manufacture.

3.8 The national production figures produced by various agencies are unable to be validated or confirmed.

3.9 There is no capture of statistics nationally from a reliable source.

3. 10 There is also no measure for forecast of the crop in a given area.

3.11 There is no pooled information on procurement and consumption of RCN in different locations.

3.12 There are over 170 members of CEPCI with over 450 manufactured units. The usage pattern over states and region needs to be identified. The actual throughput is scattered over 2500 units in different states with different capacities.

THE CURRENT PRODUCTION ESTIMATE IS NOT VALIDATED WITH INDUSTRY ESTIMATES. THERE IS A LARGE DIFFERENCE BETWEEN WHAT IS PROJECTED AND WHAT IS ACTUALLY AVAILABLE.

3.13 The statistics from registered factories in Karnataka is filed statutorily with the National Sample survey organization (NSSO).

There is a database in NSSO Delhi on organized production which needs to be mined for study and analysis on a macro basis.

3.14 There could be a mechanism under NSSO that all cashew factories in India can get covered for annual survey. Raw cashew nuts can be processed only at a factory. It cannot be consumed in any other way.

3.15 The current production estimate of cashew kernels is also not systematically collected.

3.16 There is a large difference between what is projected as raw cashew nut production by the Directorate of Cashew & Cocoa Development (DCCD) and what is actually available.

A NEW METHODOLOGY NEEDS TO BE AVAILABLE FOR CROP PROJECTIONS AND FORECASTING AND ACTUAL PRODUCTION SHOULD BE BACKED BY AUTHENTICATION WITH INDUSTRY PURCHASES OR LARGER SAMPLE OF FARMS.

3.17 There is no approved or valid forecasting technology adopted by DCCD or CEPCI for crop forecasting. There must be strong capabilities within the industry for conducting its own annual in-depth study which will be later useful to the organization itself.

3.18 At the moment there is no methodology for authentication of production or forecasts. Some exercises have begun in this regard at The Karnataka Cashew Manufacturers Association (KCMA), National Research Centre for Cashews (NRCC) and DCCD. CEPCI must have a Department of Agronomy which deals with aspects of raw cashews relating to the industry.

3.19 Two Qualified agronomists can be engaged for creating an industry perspective for a period of 15 years on all aspects of raw cashews.

3.20 The quality of interaction between the exporters and the production departments, research organizations as well as farmers has room to improve for enormous future benefits of the industry.

3.21 The scope for interaction with production needs to be defined by the Committee for the near term as well as long term.

FARMER MOTIVATION IS ESSENTIAL FOR PRODUCTION AND PRODUCTIVITY INCREASES. THERE IS NEED FOR UNDERSTANDING SOCIAL PSYCHOLOGY ASPECTS IN CASHEW FARMING AND A MULTI-DISCIPLINARY STUDY TO FOCUS ON GROWTH WITHIN EXISTING RESOURCES.

3.22 The key to increase in production and productivity is farmer motivation. A constant reference has come as to why farmers are not taking to cashew as it has a proclaimed remunerative status.

3.23 The issues could be more on social-psychology than on benefits from farming. These need to be overcome by persuasion as well as leadership – political, administrative and community.

3.24 A multi-disciplinary study needs to be commissioned by CEPCI, farming specialists, experienced farmers in other crops. Model cashew growers should be teamed up with scientists from agricultural universities as well as other universities and educational institutions.

3.25 The scope of the study should be to focus on growth from available and existing resources.

FARMER-TRADER-INDUSTRY INTERACTION MUST BEGIN WITH SAMPLE METHODS AND GET INTENSIFIED IN YEARS TO COME AND INTEGRATE WITH THE VALUE CHAIN.

3.26 There is a tremendous scope for interaction by members of industry with farmers and traders. This interaction should go beyond the scope of purchases to involvement in the value chain.

3.27 Frequent visits and conversations with growers in different states and districts would give a unique perspective.

3.28 The investment in time would hardly be a few days in a year. This would be rewarding as persons interested in engaging with growers get an unique perspective of the crop and understanding on how the produce grows.

3.29 There can be many types of interactions. Initially it can be slow, informal and based on experiences can grow to formal interactions. The National Research Centre for Cashews and University of Agricultural Sciences, Cashew Research Station usually involves the KCMA in dialogues with farmers.

3.30 Development of traceability and identifying origins will be very useful in market development. This will integrate the value chain as consistent engagement over a period of time, improving relationships and make purchases effective.

3.31 It also helps to develop factors effecting output of the crop and factors which are affecting quality.

THE UNION GOVERNMENT ALONG WITH STATE GOVERNMENTS AND LAND OWNER FARMERS WITH CASHEW MUST TARGET ONE MILLION METRIC TONES (MTS) FROM THE CURRENT AREA WITH PRODUCTIVITY INCREASES.

3.32 If the aforesaid engagements are possible, it would be easy to convince the Central and State Governments to target existing land owner farmers who engage in cashew cultivation to raise the production to one million mts. This is double the existing crop and productivity increases are possible.

3.33 This would bring a huge cost advantage to the growers as well as ready access to manufacturers. This exercise will result in an additional output of 500,000 mts giving a cushion to the marketing area of the vision.

3.34 This would envisage an existing technology of top working as well as husbandry and nutrition management at the farm and replacement with suitable hybrids.

AN AGRONOMY STUDY WITH ECONOMICS AND COMMERCE DISCIPLINES SHOULD DETERMINE THE BASIC ECONOMIC PRICE FOR RAW CASHEW AND PROJECT THE VIABILITY OF THE SAME UP TO 2020 - 2030.

3.35 The CEPCI needs to commission an agronomy study with economics and commerce disciplines along with agronomists and scientists to come at a scientific cost formula.

3.36 Any crop needs a determination of the Base economic price. Cashew has not been a focus of this to date.

3.37 Nevertheless, CEPCI should go deeply into determining cost aspects of the cashew value chain as a vital input like : raw cashews needs to be understood well enough to arrive at costs ex farm.

3.38 Models are available in economics and management to take up the range of future possibilities in RCN. The viability of production up to 2020 - 30 needs to be done along with the above study including projections on prices on a reasonably well managed program.

EXECUTIVE SUMMARY

- The current rate of growth in RCN production is not keeping in pace with demand for raw cashews for the industry and growing global and Indian cashew consumption. A study has to be initiated on competition for land in traditional areas between alternate crops and urban development.

- Current Raw cashew production has no confirmation, validation or measures of forecast and procurement and usage scattered into more than 2500 operators in seven States.

- The current production estimate is not validated with industry estimates. There is a large difference between what is projected and what is actually available.

- A new methodology needs to be made available for crop projections and forecasting and actual production should be backed by authentication with industry purchases or larger sample of farms.

- The current level of productivity has scope for improvement and can be a good base for increased production in existing areas. The scope for increase is 100 percent with package of practices as now known.

- Farmer motivation is essential for production and productivity increases. There is a need for understanding social psychology aspects in cashew farming and a multi-disciplinary study to focus on growth within the existing resources.

- Farmer-trader-industry interaction must begin with sample methods and intensified in years to come to integrate the value chain.

- The Union Government along with State Governments and land owner farmers with cashew must target one million metric tons from the current area with productivity increase.

- An agronomy study with economics and commerce disciplines should determine the Basic Economic Price for raw cashew and project the viability of the same up to 2020 - 2030.

- Agencies involved in cashewnut development must assemble to provide a firm direction in policy / plans to achieve productivity growth in existing areas.

Table : 1

PROJECTION OF PRODUCTION OF CASHEWNUT IN INDIA - STATEWISE											
SL NO	STATE	PRODUCTION IN '000 MT.									
		Actuals by DCCD						Projections as per Vision 2020			
		2002 - 03	2003 - 04	2004 - 05	2005 - 06	2006 - 07	2007 - 08	2012 - 13	2016 - 17	2020 - 21	2021 - 22
1	Kerala	90	95	64	67	72	78	140	200	270	300
2	Karnataka	40	46	43	45	52	56	220	300	400	400
3	Goa	30	32	26	27	29	31	40	50	60	60
4	Maharashtra	110	120	174	183	197	210	200	270	350	350
5	Tamil Nadu	50	51	53	56	60	65	120	160	220	240
6	Andhra Pradesh	90	95	88	92	99	107	120	150	190	380
7	Orissa	70	71	74	78	84	90	170	200	250	250
8	West Bengal	8	9	8	10	10	10	30	40	50	60
9	Gujarat	-	-	-	4	4	4	30	40	60	10
10	NE States	-	-	-	10	11	12	30	40	60	70
11	Others	12	16	14	1	2	2	20	40	40	40
T O T A L		**500**	**535**	**544**	**573**	**620**	**665**	**1120**	**1480**	**1950**	**2160**

Source: Directorate of Cashew & Cocoa Development, Cochin

Table : 2

AREA AND PRODUCTION OF CASHEWNUT IN INDIA

15= Production in M.T.
A= Area in hectares
APY – Avg productivity / ha in kg

STATE	1965-66		1966-67		1967-68		1968-69		1969-70	
	A	P	A	P	A	P	A	P	A	P
Kerala	87366	73025	90559	81607	95014	82578	96019	82732	98960	83033
Karnataka	9267	6021	9392	4619	10100	6800	12300	7000	19500	7500
Andhra Pradesh	21166	7000	24701	7169	25892	7918	26859	8505	25640	8971
Tamil Nadu	70037	10257	70763	10990	71167	10838	74472	11831	80101	12582
Goa	32517	2000	32914	4800	33212	5200	33690	5000	33938	5000
Maharashtra	12834	2704	14894	2135	15834	2294	16434	2419	17334	3519
Orissa	5981	1486	3535	1438	3535	1418	3535	1425	3309	1214
West Bengal	2146	1325	2266	1424	2353	1496	2389	1526	2389	1500
T O T A L	**241314**	**103818**	**249024**	**114182**	**257107**	**118542**	**265698**	**120438**	**281171**	**123319**

STATE	1970-71		1971-72		1972-73		1973-74		1974-75	
	A	P	A	P	A	P	A	P	A	P
Kerala	107516	85391	100661	85943	102307	86787	106497	89785	108220	95890
Karnataka	27563	8500	33748	9716	33659	10511	37404	11292	34236	12290
Andhra Pradesh	25798	9000	28285	9190	28900	10099	29800	12000	31300	12800
Tamil Nadu	81896	12474	91820	12340	90824	9560	90590	9040	91780	8700
Goa	34522	5600	35014	5600	35693	5600	37108	5600	38569	5600
Maharashtra	17734	3503	19559	3766	19759	3709	29847	3634	33452	4216
Orissa	5314	1255	8441	1280	14152	1500	16141	2000	20067	2500
West Bengal	2389	1500	2506	2165	3000	2000	3500	2100	3500	2100
Pondicherry	-	-	-	-	-	-	-	-	319	158
T O T A L	**302732**	**127223**	**320034**	**130000**	**328294**	**129766**	**350887**	**135451**	**361443**	**144254**

STATE	1975-76		1976-77		1977-78		1978-79		1979-80	
	A	P	A	P	A	P	A	P	A	P
Kerala	112311	107212	116660	107468	130393	108151	140748	110527	144113	116000
Karnataka	35687	15249	36534	15175	35975	15666	49935	16000	53171	16000
Andhra Pradesh	31000	12600	32400	12500	31113	13400	38200	14000	44300	16000
Tamil Nadu	96760	10480	92360	10150	92090	10240	91780	9960	94770	11000
Goa	39707	5632	39317	6568	42300	6568	41600	7118	41600	8000
Maharashtra	33451	4213	30023	4256	22692	4804	22692	7173	22692	6000
Orissa	21917	3912	23727	3912	26765	4027	26837	4343	38830	5000
West Bengal	3500	2100	3500	2200	3400	2200	6698	2421	6698	2000
Pondicherry	320	138	322	166	329	206	343	206	363	218
Tripura	-	-	859	62	838	61	859	69	839	48
T O T A L	**374653**	**161536**	**375702**	**162457**	**385895**	**165323**	**419692**	**171817**	**447376**	**180266**

STATE	1980-81		1981-82		1982-83		1983-84		1984-85	
	A	P	A	P	A	P	A	P	A	P
Kerala	145211	117000	147363	118000	149736	120900	151540	123700	152554	126600
Karnataka	56274	16500	58299	18000	60289	19060	63017	19110	66234	19950
Andhra Pradesh	49696	16500	57279	20000	60512	20040	64438	22220	66685	24400
Tamil Nadu	94770	11000	94770	10500	94770	11310	94770	11330	94770	11560
Goa	42939	8000	44139	8500	44139	9070	44139	9600	44139	10250
Maharashtra	22692	8000	22692	10000	22692	10010	22692	12370	22692	14140
Orissa	44983	6000	48601	8000	52454	8490	53457	9990	54794	11850
West Bengal	6698	2000	6698	2500	6698	2270	6698	2270	6698	2300
Pondicherry	363	200	363	200	363	240	363	230	363	230
Tripura	839	50	839	60	839	50	839	50	839	50
T O T A L	**464465**	**185250**	**481043**	**195760**	**492492**	**201440**	**501953**	**210870**	**509768**	**221330**

STATE	1985-86		1986-87		1987-88		1988-89		1989-90	
	A	P	A	P	A	P	A	P	A	P
Kerala	154114	128900	154854	130900	155263	134000	155263	136900	155391	139500
Karnataka	68519	20930	70557	22030	72374	22940	72374	23680	73782	24650
Andhra Pradesh	68800	26810	69889	29070	70469	31860	71010	34260	71065	36580
Tamil Nadu	94770	11800	94770	11850	94770	11980	95370	12360	95370	12430
Goa	44139	10760	44139	11310	44139	12090	44239	12780	44239	13210
Maharashtra	226432	15790	22692	19120	22692	21360	22752	24380	22752	27130
Orissa	57445	16880	58197	18560	59788	22320	59983	26770	59983	28600
West Bengal	6698	2320	6698	2440	6698	3400	6798	2890	6798	3170
Pondicherry	363	240	363	250	363	260	363	260	363	270
Tripura	839	50	839	50	839	50	1126	50	1126	50
T O T A L	**518379**	**234480**	**522998**	**245580**	**527395**	**260260**	**529287**	**274330**	**530869**	**285590**

STATE	1990-91		1991-92		1992-93		1993-94		
	A	P	A	P	A	P	A	P	APY
Kerala	155391	142100	155491	143200	155640	151600	155810	140200	925
Karnataka	74082	25770	74442	26750	74590	31260	74790	31540	500
Andhra Pradesh	71095	37770	71241	40360	71720	44880	72090	46570	723
Tamil Nadu	95620	12470	95970	12710	96270	19190	96770	19200	203
Goa	44639	14100	45081	14490	45630	15450	46160	16210	370
Maharashtra	22752	29519	22852	31960	47910	43750	51220	46860	1246
Orissa	59983	29100	60085	31840	60140	39060	60190	43420	812
West Bengal	6798	3440	6898	3660	6900	3660	6900	3990	596
Pondicherry	363	280	363	290	-	-	-	-	-
Tripura	1126	50	1126	50	-	-	-	-	-
Others	-	-	-	-	1490	340	1490	360	299
T O T A L	**531849**	**294590**	**533549**	**305310**	**560290**	**349190**	**565420**	**348350**	**694**

STATE	1994-95			1995-96			1996-97		
	A	P	APY	A	P	APY	A	P	APY
Kerala	156200	119200	781	118600	140000	1000	119000	134000	1140
Karnataka	75300	26400	400	83900	37600	550	85000	52000	690
Andhra Pradesh	73300	58700	880	118080	71600	1000	121000	60000	830
Tamil Nadu	97200	22000	232	77360	30930	330	79000	30000	390
Goa	47500	16960	390	49600	17800	410	51000	20000	430
Maharashtra	58200	37600	1100	66700	69000	1440	80000	80000	1570
Orissa	60600	37200	679	101850	43000	720	105000	40000	670
West Bengal	7000	3280	490	8680	6960	870	9000	6000	870
Others	1900	300	250	10200	840	560	10000	8000	870
T O T A L	**577200**	**321640**	**631**	**634970**	**417830**	**720**	**659000**	**430000**	**835**

STATE	1997-98			1998-99			1999-2000		
	A	P	APY	A	P	APY	A	P	APY
Kerala	120000	100000	850	122000	130000	1100	122000	100000	850
Karnataka	87000	35000	460	89000	40000	500	91000	60000	700
Andhra Pradesh	121100	50000	690	101000	80000	800	103000	100000	1100
Tamil Nadu	80500	30000	390	83000	35000	460	85000	45000	540
Goa	52000	25000	530	53000	20000	420	54000	30000	610
Maharashtra	103500	60000	1500	119000	85000	1500	121000	125000	1470
Orissa	108600	45000	750	114000	50000	750	84100	40000	670
West Bengal	9000	6000	860	9000	8000	890	9000	8000	900
Others	16200	9000	610	16000	12000	860	17000	12000	800
T O T A L	**700900**	**360000**	**740**	**706000**	**460000**	**800**	**686100**	**520000**	**900**

STATE	2000-01			2001-02			2002-03		
	A	P	APY	A	P	APY	A	P	APY
Kerala	120000	76000	765	120000	87000	870	120000	94000	890
Karnataka	91000	42000	500	90000	40000	470	90000	44000	470
Andhra Pradesh	130000	75000	650	135000	88000	720	135000	98000	740
Tamil Nadu	86000	59000	750	90000	46000	570	90000	50000	570
Goa	55000	25000	500	55000	30000	590	55000	31000	660
Maharashtra	121000	98000	1050	143000	103000	880	143000	115000	1000
Orissa	90000	59000	700	110000	59000	570	110000	55000	810
West Bengal	8000	6000	900	9000	7000	780	9000	7000	890
Others	19000	10000	750	18000	12000	760	18000	12000	760
T O T A L	**720000**	**450000**	**710**	**770000**	**472000**	**710**	**770000**	**506000**	**760**

STATE	2003-04			2004-05			2005-06		
	A	P	APY	A	P	APY	A	P	APY
Kerala	101	95	890	102	64	900	80	67	900
Karnataka	94	46	500	95	43	680	100	45	700
Goa	55	32	690	55	26	660	55	27	690
Maharashtra	148	120	1100	160	174	1200	160	183	1300
Tamil Nadu	95	51	600	105	53	610	121	56	640
Andhra Pradesh	136	95	750	150	88	840	170	92	880
Orissa	124	71	850	126	74	810	120	78	860
West Bengal	9	9	760	9	8	800	10	10	950
Gujarat	-	-	-	-	-	-	4	4	900
NE States	-	-	-	-	-	-	14	10	640
Others	18	16	790	18	14	800	3	1	400
T O T A L	**780**	**535**	**800**	**820**	**544**	**810**	**837**	**573**	**815**

STATE	2006-07			2007-08			2008-09		
	A	**P**	**APY**	**A**	**P**	**APY**	**A**	**P**	**APY**
Kerala	80	72	900	84	78	900	70	75	90
Karnataka	102	52	700	103	56	710	107	60	720
Goa	55	29	690	55	31	700	55	30	700
Maharashtra	164	197	1500	167	210	1500	170	225	1500
Tamil Nadu	123	60	670	123	65	700	131	68	710
Andhra Pradesh	171	99	890	171	107	900	182	112	920
Orissa	125	84	860	131	90	860	137	95	865
West Bengal	10	10	1000	10	10	1000	11	11	1000
Gujarat	4	4	900	4	4	1000	6	4	700
NE States	15	11	700	15	12	750	16	12	750
Others	5	2	500	5	2	500	8	3	460
T O T A L	**854**	**620**	**820**	**868**	**665**	**860**	**893**	**695**	**900**

Source : CEPCI / Source: Directorate of Cashew & Coco Development, Cochin
Source : www.dacnet.nic.in\cashewcocoa\stat.htm#area

CHAPTER - 4

RAW CASHEWNUT RESOURCES

THERE ARE NO CONSTRAINTS IN RESOURCES FOR EXPANSION OF CROP TO 1.95 MILLION METRIC TONES BY 2020.

4.1 It is affirmed by all cashew stakeholders, research associates, Government agencies and through phenomenal observation as well as insight that there are no constraints in resources for expansion of crop in India from the current levels to 1.95 Million metric tones per annum by 2020 and well beyond for next 35 years.

4.2 The resource requirements are well defined later. The confirmation is that there are resources available and they should be mobilized.

4.3 The Central and State Governments together should declare this as a "potential" or a "target". On finalization of objectives, Governments can make provisions in plan programs over next three V year plans.

4.4 This is probably one horticultural crop which does not take away another crop. In fact, it has suffered from replacement from another plantation crop. Rubber in Kerala which was the largest producing state to date is losing its number one Status.

SUFFICIENT LAND IS AVAILABLE.

4.5 The requirement is about 900,000 hectares of land which is accessible and available. This is not a constraint. This land is to be identified from State, District to Village level and there-on to individual farmers.

4.6 Land may be a constraint in traditional areas like Kerala, the Kanaras in Karnataka and Goa. It is not a constraint in other parts of Karnataka, Maharashtra, Andhra, Orissa, Tamil Nadu and Chattisgarh areas.

4.7 Assessment that land is available should be made.

4.8 The CEPCI along with DCCD should make a land availability study which can be done at minimum cost which will enable development agencies and planners to focus on crop development when the mission begins.

FARMERS INCLINED TO GROW RAW CASHEWS TO BE ACCESSED AND MOTIVATED.

4.9 It has been proved at all district levels that farmers are inclined to grow cashew. They only need to be accessed and motivated.

4.10 The CEPCI in co-ordination with a Central agency like NABARD should commission along with DCCD, a national roster of interested farmers by running a medium level campaign to confirm that around 60,000 farmers with land holdings of 2 to 5 hectares can show EOI on cashew growing through a simple registration which can also be web enabled for later use.

4.11 A sample survey of this nature can be done at very low cost in potential areas in order to test the inclination. A survey also can be done on the basis of a query list or poll on what would be the requirements that farmers state, in order for them to be sufficiently motivated for cashew cultivation.

ADEQUATE AVAILABILITY OF GOOD GENETIC MATERIAL BASED ON HYBRIDIZATION FOR OVER 20 YEARS.

4.12 Scientists and development agencies have repeatedly confirmed that the genetic stock and replication developed for over 20 years are validated across regions. Good genetic material confirms that 10 to 20 kgs of raw cashew per tree is achievable on good practices.

4.13 This translates to the 2 metric tones per hectares which are projected for farmers. This also affirms that 1.95 million metric tones are possible due to the genetic stock.

4.14 The development agencies have also institutionalized the stock and delivery of hybrids to farmers of different regions through the horticultural departments. There is scope for improvement in this technique and refinements are possible as well as checks, audits and measures for improvement.

4.15 More extensive sensitization and trials are needed in demonstration farms at all villages, where cashew is meant to be popularized.

HYBRIDIZATION TECHNIQUES

4.16 Hybridization techniques have developed over the years. Air layering, softwood grafting and similar techniques have been refined. Softwood grafting has been proved as cost effective as well as having the capacity to generate large numbers that are needed.

4.17 Hybridization as well as accessing genetic material needs to be a continuing exercise.

4.18 Cost effective exercises to raise productivity levels to 4 mts per hectare have been attempted. These could be within reach with progressive farmers collaborating in the farming to give effect to targets.

POTENTIAL OF EXTENSION AND TRANSFER OF TECHNOLOGY WITHIN REACH.

4.19 Rapid development in communications and methods of training has made the potential of extension and transfer of technology within reach.

4.20 Government of India, Horticultural Commissioner was inclined to take support from industry associations on cost sharing basis to have extension and transfer of technology.

4.21 The CEPCI should take up this approach as it has sufficient expertise in communications for promotion.

4.22 Several private and public sector agencies are prepared to take this on contract and this can be done speedily in a mission approach.

4.23 The CEPCI in association with trade associations and trade members can bring the concept of a Cashew Chariot, which will have the skills for communication videos to each village and hand over the content i.e. data and information that is required to communicate and access material when they decide in principle.

ACCESS BY FARMERS TO RESOURCES IS ADEQUATE - GROWING AREAS ARE COMPATIBLE TO EXPANSION MODE.

4.24 Farmers have reasonable access to resources for cashew growing.

4.25 Growing areas are compatible to expansion mode. This requires a further validation.

4.26 Resource implies labour and capital, in addition to knowledge.

RESEARCH BASE AVAILABLE

4.27 A rich research base is available for the development of personnel as well as farmer. This research has been refined over the last five years with a greater in-depth study of agro climatic, soil nutrition and agronomic practices over different region.

4.28 Scientists would have an answer to every question which the farmer poses on cashew cultivation which has been validated. This will support the farmer when he faces vagaries in yield or finding development stunted.

NEED FOR CAPITAL AND DEPLOYMENT WITHIN THE REACH OF FARMER.

4.29 At the moment, cashew cultivation does not seem to require huge capital. This needs to be validated when the land development costs are involved.

4.30 There are farmers with sufficient financial resources. Even otherwise, banks in rural areas are willing to lend reasonable amounts to farmer.

PHYSICAL, FINANCIAL AND KNOWLEDGE RESOURCES ARE WITHIN INDIA AND AVAILABLE FOR EXPANSION OF ORCHARD.

4.31 Apart from land, there are physical requirements like landscaping and preparation of the land which are within farmer's reach.

4.32 Expansion of orchards requires knowledge which can be tapped by farmer from more experienced farmers or development officials and extension officials including scientists who are ready to spend time with the farmer.

ORGANIZATION ESSENTIAL

4.33 Organization is the key part in the exercise. In the 21st century the traditional concept of factors of production has been challenged by confirming that knowledge is also a factor or a resource which is vital. Essentially, the power of organization is required primarily due to the advantages it gives for specialization and division of labour.

4.34 Organization is also useful in mobilizing the resources from time to time in the mission approach.

4.35 There is no dearth of comparison, analogy or talent for organization in other crops. Adapting the techniques used in propagation of other crops needs to be harnessed for cashew.

EXECUTIVE SUMMARY

- There are no constraints in resources for expansion of crop to 1.95 million metric tons by 2020.
- Sufficient land is available.
- Farmers inclined to grow raw cashews, to be accessed and motivated.
- Adequate availability of good genetic material based on hybridization over 20 years.
- Potential of extension and transfer of technology within reach.
- Access by farmers of resources adequate. Growing areas compatible to expansion mode.
- Research base available.
- Need for capital and deployment within reach of farmer.
- Physical, financial and knowledge resources are within India and available for expansion of orchard.
- Organization essential

CHAPTER - 5

RAW CASHEW POTENTIAL

POTENTIAL FOR RCN PRODUCTION IN INDIA IS 2.5 MILLION METRIC TONES BY 2030.

5.1 The potential for raw cashew nut production in India is 2.5 million metric tones by 2030. This is on the momentum of an achievement when the vision is realized for 1.95 million tones are reached by 2020. It has been proved in India in many horticultural crops that a staggering increase is possible once the crop reaches a momentum. Examples are coffee, apple, raisins, rubber, coconut and the like.

5.2 The requisites for such a potential are in place. The methodology should be adopted on economic principles of the Production Possibility Frontier.

5.3 Applied to cashew the Production possibility frontier is reached when an increase in inputs or improved technological knowledge enables a country to produce more of all goods and services thus shifting out the PPF.

The Production Possibility Frontier shows the maximum amounts of production that can be obtained by an economy, given its technological knowledge and quantity of inputs available. The PPF represents the menu of goods and services available to the society (Economics: 18th Edn – Samuelson Nordhaus)

POTENTIALITY MATRIX HAS BEEN DRAWN.

5.4 The matrix for realization of potential is drawn. It is more explained in the explanation on parameters.

The parameters are:

- ☞ Land Availability
- ☞ Ideal Climate
- ☞ Horticulture
- ☞ Farmer inclination
- ☞ Availability of Plant materials
- ☞ Availability of input of skills
- ☞ Availability of visible demonstration of output
- ☞ Marketability
- ☞ Availability of processing capacity
- ☞ Research support
- ☞ Institutional support
- ☞ State support
- ☞ Infra structure
- ☞ Integration

ATTENTION TO INDIVIDUAL CAPACITY

5.5 Attention has to be given to individuals. Even though it is convenient to address in groups like clusters or SHG in the initial stages, attention has to be given to demonstration farms where individual capacity is assessed. Historically, development of practices has taken place in India when farmers devoted themselves to good practice.

5.6 Attention to individual capacity implies the ability of the farmer to work within the resources at his command. This is possible in cashews.

FARMER SHOULD BE THE CENTRE OF ACTION.

5.7 Farmer should be the centre of action. Cashew should be taken from the perception of a "neglected crop" to that of an orchard.

5.8 All communication must be farmer centric. Even as full attention is given to the product, the farmer needs to be addressed as a person of importance. This will be highly beneficial when farmer is addressed on cultivation practices and assistance to develop bye - products and marketing.

5.9 Cashew research should involve farmers upfront. This could mean that trials of hybrids take place simultaneous to that in research stations. Farmers need to be paid to support this initiative entirely on costs and a benefit of the hybridization in terms of yield goes to the farmer.

If this is done on a reasonable sample of say 100 farmers for every plant breeding program, the validation will be simultaneous in the field when declaration is approved. This may be a contrarian's practice, but should be considered by the Ministry of Agriculture and ICAR as collaborative program.

5.10 The CEPCI must make farmers involve in export effort by having exporters adopt atleast 10 farmers each and develop a relationship with them. This would eventually help crop fore-casting.

WILLINGNESS OF FARMER IS CRUCIAL.

5.11 Farmer's willingness to adopt cashew is a necessity. No farmer will adopt cashew by recommendation or force.

5.12 The value of voluntary action by the farmer far exceeds those granted by incentives.

5.13 Incentives can bridge the gap between viability and non-viability and this should be perceived well.

5.14 The CEPCI must create the national environment and slogans for ensuring the right public relations that will make farmer's willingness possible in the shortest time.

ACHIEVING PRODUCTIVITY NEEDS STRONG COMMITMENT AND A MOVEMENT.

5.15 Indian productivity stagnating at 700 kg per hectare is a result of farmer apathy as well as genetic. Productivity improvement needs to be a self set goal for the farmer. The input output ratio must be clearly positive when productivity is targeted.

5.16 There is need for a movement in cashew cultivation practices. There needs to be some lessons drawn from various other crops in India and similar crops like almonds in the world. The lessons need to be approved and articulated by a group of farmers.

POLICY MAKERS SHOULD RECOGNIZE PARAMETERS.

5.17 Policy makers should recognize parameters specified earlier and find greater explanation in the next chapter.

5.18 If parameters are not recognized, there are great dangers when cashews are sought to promoted on eagerness and enthusiasm. On the other hand, if parameters are explained and understood well, policy makers can clearly target grants to specified farmers.

POLICY MAKERS MUST BE GUIDED BY FACTS ON THE GROUND AND THE PROJECTIONS MUST BE REALISTIC.

5.19 Sufficient facts collected by sample surveys and backed by reliable data need to be available for policy makers.

5.20 Policy workers work best when facts on the ground are obtained reliably. The projections made out must be realistic.

RAW CASHEW HAS HIGH BACKWARD AND FORWARD INTEGRATION BENEFITS TO ECONOMY.

5.21 There are very high backward and forward integration benefits to the rural economy in raw cashew.

5.22 The CEPCI needs to map the integration benefits by commissioning a study and discussion in regional workshops.

5.23 The larger interest of the community will make it easy to be persuasive with policy makers to generate additional interest from Government at its agencies.

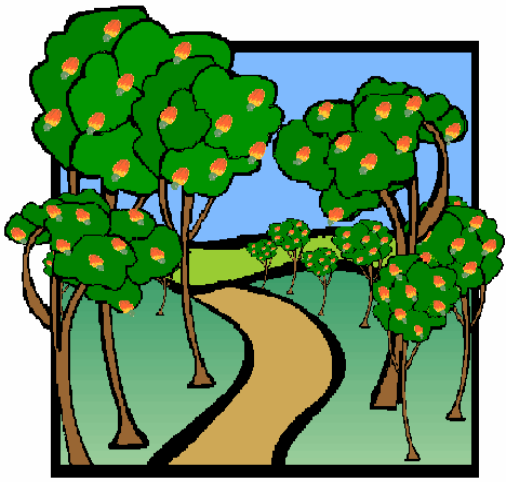
RAW CASHEW POTENTIAL NEED NOT TEST THE DEMAND POTENTIAL AGAIN.

5.24 Usually, there is skepticism when a large scale demand is placed for increasing agricultural production.

5.25 The fear is that increased production could result in over production, leading to price cash.

5.26 The industry deems that this could be impossible as they have borne the brunt of high raw cashew prices in a thin economy.

5.27 The demand potential is elsewhere assessed. The emphasis again provided is that raw cashew will not be found wanting for buyers.



EXECUTIVE SUMMARY

- Potential for RCN production in India is for 2.5 Million Metric tons by 2030.
- Potentiality matrix has been drawn.
- Attention to individual capacity.
- Farmer should be the centre of action.
- Willingness of farmer is crucial.
- Achieving productivity needs strong commitment and movement.
- Policy Makers should recognize parameters.
- Policy makers must be guided by facts on the ground and projections must be realistic.
- Potential for raw cashew has high backward and forward integration benefits to economy.
- Raw cashew potential need not test the demand potential again.

Table : 3.1

PROJECTION OF PRODUCTION & DEMAND

Area in Ha
Production in Lakh MT

Year	Existing total Area *	Area replanted	New Planting	Total Area	Production**	Demand
2007 - 08	854,000	11,100	16,900	870,900	6.65	12.00
2008 - 09	870,900	15,000	20,000	890,900	7.40	12.70
2009 - 10	890,900	15,000	20,000	910,900	8.10	13.40
2010 - 11	910,900	15000	20,000	930,900	9.10	14.20
2011 - 12	930,900	15,000	20,000	950,900	11.00	15.00

Source: Directorate of Cashew & Cocoa Development, Cochin

* Total area is inclusive of area replanted during the year
** Production estimated is taking into account production from replanted area also.

Table : 3.2

PROJECTION OF PRODUCTION OF CASHEWNUT IN INDIA STATEWISE							
SL NO	STATE	PRODUCTION IN '000 MT.					
		2002 - 03	2003 - 04	2004 - 05	2005 - 06	2006 - 07	2007 - 08
1	Kerala	90	95	64	67	72	78
2	Karnataka	40	46	43	45	52	56
3	Goa	30	32	26	27	29	31
4	Maharashtra	110	120	174	183	197	210
5	Tamil Nadu	50	51	53	56	60	65
6	Andhra Pradesh	90	95	88	92	99	107
7	Orissa	70	71	74	78	84	90
8	West Bengal	8	9	8	10	10	10
9	Gujarat			-	4	4	4
10	NE States			-	10	11	12
11	Others	12	16	14	1	2	2
T O T A L S		500	535	544	573	620	665

CHAPTER - 6

EXPLANATION ON PARAMETERS

POTENTIAL FAVOURABLE CONDITIONS FOR RAW CASHEW NUTS

LAND AVAILABILITY

6.1 Land availability in each state is the biggest issue that will confront development specialists. Land is with small holders and very little with the state. In the current growing areas, land holding issues are complex. Competing crops which are remunerative like arecanut, coconut and rubber are pre-dominant.

6.2 Land available for cashews in large extent can only be in new areas and therefore development agencies will have to develop a land matrix to correctly identify the farmers who have land suitable for cashew.

6.3 Land availability can be mapped on the basis of individual interest of farmers and suitability for cultivation.

6.4 The most likely districts for suitable expansion in respective States are listed in **Table 4**.

6.5 The requirement of land will be to the extent of 1 million hectares on a conservative basis with an average productivity of 1.5 mts per hectare.

IDEAL CLIMATE

6.6 The ideal climate for cashew is tropical. All States currently producing raw cashew: Kerala, Karnataka, Goa, Maharashtra, Tamilnadu, Andhra Pradesh, Orissa, West Bengal, North-Eastern States, Chattisgarh and Gujarat have ideal climate.

It is important that potentiality is focused on districts, taluks and villages who have the most ideal climate.

- *The ideal climate for cashew is tropical*
- *Latitude 10 degrees to 22 degrees*
- *Max Temperature 35 degrees c*
- *Min Temperature 20 degrees*
- *Average rainfall: above 80 cm*

6.7 The other parameters are a minimum rainfall of 80 cm and requirement that temperature should not fall below 15º C. There is also a risk if temperature increases over 35º C – 40º C at critical times. The requirement of any cashew expansion project is to identify the potentiality at the farm level.

6.8 As climate and weather are important for development of raw cashew to its fullest extent, all negatives and positives about weather patterns must be assessed before recommending large-scale expansion. This should be particularly followed in new areas.

6.9 Where rainfall is less than 80 cm, ground water availability will help in providing drip irrigation and fertigation. The advantage is the availability of "sun" days is more and can provide a healthy input to the crop naturally. This requires to be tested.

HORTICULTURE ENVIRONMENTS

6.10 A horticulture environment is essential as cashew is a tree crop. This requires a farmer to have the ability to wait patiently for the gestation growth period which is 4 to 7 years.

There is need for policy makers to bring in analogy of other horticultural crops and an application to give an orchard status to the cashew farm

6.11 The movement from agriculture to horticulture has always paid off dividends to farmers. Here the farmer must have the capacity to bear the gestation period. It pays off over a period of time.

6.12 The assumptions made by the farmer must be correct in switching to a tree crop from an annual crop. It is an easier decision if he uses currently fallow.

6.13 Districts where tree crops have been successful and plantations have been established provide a conducive environment for promoting the cashew orchards.

FARMER INCLINATION

6.14 An important factor in expansion of crop is the interest and inclination to invest resources, mainly time and effort. If cashew has to expand rapidly the farmer has to convince that it is rewarding.

6.15 It is evident the farmers have the interest to develop this crop not only in traditional areas but in new areas as well. The nodal agency as well as State governments will have to create a structure where farmer enthusiasm is matched by provision of the required inputs.

6.16 If farmers are skeptical, there is every reason to answer their queries and make them confident about going ahead with investment in orchards

6.17 It is very important that farmers have access to the knowledge developed by other farmers. Successful farms will be emulated faster than any other source of information or knowledge

AVAILABILITY OF PLANT MATERIAL

6.18 There is sufficient availability of plant material in all States. There is a need to ensure quality and certification. Arrangements for delivery to the farm-gate should be incorporated in the program. An evaluation at farm level is called for.

6.19 Parameters on quality of plant material are important. Farmers sometimes trust hybrids from research stations or institutes.

6.20 Private sector farm nurseries have been promoted and have been successful in giving volumes. They need to be validated. There should be an interaction between farms having hybrids to offer and research institutions to enhance plant breeding as an extended exercise in collaboration with scientists.

6.21 Delivery of plants to site should be in-built in Government schemes in collaboration with NGO's or industry associations

AVAILABILITY OF INPUT OF SKILLS

6.22 Horticulture requires a set of skills which are different from agriculture. Skill development with farmers can be arranged through renowned scientists, field and extension officers as well as prominent horticulturists.

6.23 A program can evolve where successful horticulturists in other crops like arecanut, coconut, coffee and similar horticultural produce can bring in field experiences and introduce effectiveness.

6.24 Such a lateral transfer must be sponsored by the state with the stakeholders. An innovative idea is to take cashew farming enthusiasts to coffee, arecanut and coconut farms and have field level workshops on how techniques can get into cashew orchards.

6.25 Skills also need to be developed in apple usage development, package of practices, engagement of temporary labour on key up-keep areas, possible developments of intercrops and husbandry.

AVAILABILITY OF VISIBLE DEMONSTRATION OF OUTPUT

6.26 Cashew success stories need to be demonstrated. At least 1000 cashew orchards in seven states that are already successful need to be show-cased for other farmers.

6.27 Demonstration farms should not be merely a development exercise. It should be conveyed that farmers need to do it for themselves for their successful future.

6.28 Other stake holders like trade associations, NGO's, individuals keen on cashewnut development should participate in the demonstration farm exercise

6.29 Visible demonstration should not merely focus on quantity per hectare but the relative quality of the produce to suit industry needs.

MARKETABILITY

6.30 The marketability of produce of cashew in India should be beyond any skepticism or doubt. India currently imports 630,000 metric tons from international sources.

6.31 Indian industry pays anywhere between 10% to 40% in terms of price preferential to the cashew producers.

6.32 The transaction costs incurred are higher by 12% to 22% depending on factors at different locations and quality of the produce.

6.33 The marketability of cashew kernels is also tenable and sustainable at over 300% of the current production over the next 15 years.

6.34 The production increase program should not be held back on any reservation on marketability of the produce nor there be an apprehension that ex-farm realization will ever suffer in the future.

6.35 Government and State programs meant for marketing should get harmonized and homogenized with the cashew program.

AVAILABILITY OF PROCESSING CAPACITY

6.36 The cashew growing community will have liquidity in marketing their produce when there is sufficient processing capacity within the State.

6.37 Each State has sufficient processing capacity to absorb the respective State production. This gives competitiveness to producer as well as manufacturer in the Indian context.

6.38 Processing and manufacturing capacity grows commensurate and in proportion to the local availability growth. The competitiveness of the industry and rivalry with inter-play of markets gives the Indian producer world's best prices at the farm gate (ex farm)

RESEARCH SUPPORT

6.39 India has the largest research support and initiative for the cashew economy in terms of cashew production. This is done by ICAR as well as the State Universities of Agricultural Science.

6.40 Research findings have been applied in field and corroborated. The packages of practices evolved by various institutes to date have been proved at the institution level and with progressive farmers. The weakness has been in extension.

6.41 A large scale and intensive communication effort is needed to invoke farmers interest and take the effectiveness to a universal level. This requires further investment in agronomy and public relations techniques.

6.42 A major issue is social psychology of cashew farmers who presently handle this crop. Entry level farmers are facing issues on data information and knowledge.

6.43 Research initiatives for next 20 years have been arrived at by the industry and NRCC under ICAR.

6.44 Further commitments of resources to research need to confirm Government to institutions and farmers.

6.45 Inter-disciplinary research support between National Research Centres, Applied Research Institutions, Universities of Agricultural Sciences, Technological and Science Institutes and Universities is an essential to cover all the programs.

INSTITUTIONAL SUPPORT

6.46 Institutions who are stakeholders: ICAR / NRCC, Agricultural universities, State Research Institutes, State Universities, Technology institutes, NABARD, Grameen Banks, Commercial Banks, Co-operative Banks, and industry associations, CSIR laboratories and farmers associations must get integrated into development processes for the farmer.

6.47 Institutional support can also come from NGO's, Corporate Social Responsibility programs and international agencies who are supporting Millennium Development Goals, poverty alleviation, employment generation, alternative and appropriate technologies and environment and ecology programs.

STATE SUPPORT

6.48 Ample provisions have been made from the VII Plan onwards for cashew. Funds are transmitted via State Government. Of late, the National Horticultural Mission has sanctioned several proposals of State Governments. State support cannot stop with just financial support and grants.

6.49 States must recognize cashew as a crop of national importance and assist the entire cashew value chain. Investment in cashew will pay off in the long run the cashew value chain will realize substantial sums by way of VAT and local fees.

6.50 Employment generation will be a crucial payoff out of cashew development so also the value of bye - products which include co - generation of fuel, ethanol and nutrition inputs to the feed industry.

6.51 There is no waste generated from cashew. On the other hand huge waste recovery processes can be generated with initial state support which will be sustainable in perpetuity.

6.52 States must recognize that covering 100,000 hectares with a tropical tree to generate additional raw cashew by itself will contribute positively to absorb CO_2 and generate greenery in otherwise desolate areas. Suitable ecological diversity can be created once the farmer is prosperous.

6.53 The spin-off from cashew cultivation will even reach the entire citizenry when nutrition based on cashew will be a buffer for supplementing food production for a growing population in the developing world.

INFRASTRUCTURE

6.54 Cashew requires minimal infrastructure. However modern cashew cultivation will respond to micro irrigation.

6.55 Access to markets also require infrastructure.

6.56 Adequacies need to be addressed to provide infrastructure to future cashew manufacturing plants at strategic locations.

6.57 Utilities, amenities, packages and new technologies in farming and manufacture require linkages

INTEGRATION

6.58 The most important aspect is integration. Also called organization in modern management, the State must provide the necessary integration through motivation.

6.59 The current national agencies involved in horticulture development should be mandated to make the cashew mission a success.

6.60 The above are indicating that we need to develop a matrix which is enclosed which will prioritize cashew development in select areas with very high potential. The multiplier effect will follow.

6.61 The matrix is reproduced as **Table : 5**.

6.62 A rating mechanism can be developed jointly by scientists, agronomists and development agency along with trade and industry to give marks for the best sitting that can be done for cashew orchards.

6.63 This will help over 60,000 potential orchard owners to vitalize their land and provide resources that make production possible.

EXECUTIVE SUMMARY

- In the kind of expansion in area and production of raw cashew we envisage, there must be precise targeting of areas to cover

- The factors of production must be available which is primarily area of vacant land

- The other factors are labour, capital and knowledge.

- There must be a rating exercise for each factor from 1 to 10.

- The highest marks will be able village wise, Taluk wise and scoping up to District and state

- This will enable concentration of development oriented exercise

- The pitfalls in development can get avoided if parameters are established and negatives are avoided

- High focus by farmer is needed to achieve a productivity of 2000 kgs per hectare

- Cashew industry must involve in the exercise on parameters and also be willing to take positions on the basis of data available.

- Development agencies must take cognizance of these parameters and improve and modify it to suit an actionable plan.

Table : 4

POTENTIAL FOR STATE AS A WHOLE								
STATES	LAND AVAILABILITY		Excellent	Very Good	Good	Moderate	Unfavorable	REMARKS
	Hectares	Metric Tonnes						
KERALA								
KARNATAKA								
GOA								
MAHARASHTRA								
TAMIL NADU								
ANDHRA PRADESH								
ORISSA								
WEST BENGAL								
GUJARATH								
OTHERS								
Rating: A : Excellent, B : Very Good, C : Good, D : Moderate, E: Unfavorable								

Table : 5

FAVOURABLE CONDITIONS										
STATE	KERALA	KARNATAKA	GOA	MAHARASHTRA	TAMIL NADU	ANDHRA PRADESH	ORISSA	WEST BENGAL	GUJARATH	OTHERS
Land Avail-ability										
Ideal Climate										
Horticulture										
Farmer inclination										
Availability of Plant materials										
Availability of input of skills										
Availability of visible demonstration of output										
Marketability										
Availability of processing capacity										
Research support										
Institutional support										
State support										
infra structure										
Integration										

Rating:
A : Excellent, B : Very Good,
C : Good, D : Moderate,
E: Unfavorable

NOTE : The preferred villages & talukas within these Districts must be rated for identifying the maximum suitable combination for promoting cashew kernels.

CHAPTER - 7

IMPACT OF RAW CASHEWNUT PRODUCTION

IMPACT OF RAW CASHEW NUT PRODUCTION TREMENDOUS ON INDIAN ECONOMY.

7.1 The impact increase in production of RCN to 1.95 million metric tones will be tremendous on the Indian economy.

7.2 It translates to an output level of Rs 9,000 crores in the year 2020. With India's GDP likely to exceed Rs 10,000,000 crores it may sound insignificant in a gigantic economy.

7.3 The impact would be much larger if the actual production is beyond 3.00 Million metric tones.

7.4 The effects are multiple across the value chain.

MEETS MILLENNIUM DEVELOPMENT GOALS AT THE LEAST COST.

7.5 India's cashew growth story needs to touch the lowest base of the pyramid. The arid rural areas with large population malnourished and having under utilization of resources need alternatives to the current situation of deprivation of opportunities as well as the basic needs.

7.6 The Millennium Development Goals set out by the multilateral agencies are :

- *Goal 1: Eradicate extreme poverty and hunger*
- *Goal 2: Achieve universal primary education*
- *Goal 3: Promote gender equality and empower women*
- *Goal 4: Reduce child mortality*
- *Goal 5: Improve maternal health*
- *Goal 6: Combat HIV/AIDS, malaria and other diseases*
- *Goal 7: Ensure environmental sustainability*
- *Goal 8: Develop a Global Partnership for Development*
- *http://www.undp.org/mdg/basics.html*

7.7 As is seen, there is a global commitment to achieve the Millennium Development Goals by 2015.

7.8 Cashew answers easily to Goal 1, Goal 2, Goal 3, Goal 5, Goal 7 and Goal 8.

7.9 Cashew provides an answer to the goals with an investment in knowledge and will be sustainable over a longer period than expenditure to meet the goals as a social objective out of budgets.

7.10 Cashew provides employment to women at farm level as well as manufacture level. This amounts to empowerment of women. It improves land fertility as a commercial tropical tree crop. Its markets are universal and therefore conducive to global partnerships. Rural incomes improve on cashew nut development and hence will support primary education and maternal health will improve when access to rural areas improves due to commercial crop development.

PROVIDES VALUABLE MATERIAL WHICH IS DROUGHT PROOF.

7.11 As cashew is grown in tropical areas which have sufficient rainfall, it takes root in cultivation where other profitable crops are not viable.

7.12 It was introduced as a tree to prevent soil erosion. This was much before its was evolved.

7.13 It provides income during April and May in India in which period there is hardly any other harvest activity.

7.14 It is not subject to large variations like annuals. Hence a steady income during the tree's life would be a boon to producers.

CAN SUBSTITUTE FOOD FOR THOSE WHO CAN AFFORD SPARING CEREAL FOR THE MIDDLE CLASS AND POOR SECTIONS.

7.15 In India raw cashew used to provide for 5 kgs of rice. Currently it is at 3 kgs per kilo of raw cashew as rice prices have increased more sharply.

7.16 Cashews are consumed by the upper middle class and above on affordability considerations. If the upper classes consume cashews in small quantities everyday, the consumption of cereals goes down. This makes cereals available to the middle and lower income class.

7.17 Cashews as food will thus substitute atleast 6 times its outputs in calorific terms to cereals. 100g of cashews is 600 calories while calories from cereals of equal weight are 6 times lower.

GOOD IMPACT ON STATE REVENUES BY WAY OF VAT.

7.18 While VAT is going to be neutralized for exports, VAT paid in domestic markets is substantial. Hence investment by state in raw cashews will pay back in subsequent years.

7.19 The spending power gained from the sale of primary produce, raw cashews will mean more consumption of daily goods of consumption and thus increase economic activity in the primary sector which is healthy for any economy

EMPLOYMENT CREATIONS PRODUCTIVE BOTH IN FARM SECTOR, MANUFACTURE AND VALUE CHAIN

7.20 Creation of employment which is productive in the farm sector will be large. Currently, it will be at least 60 man days for every metric ton of production. This translates to an additional 60 million man days, again mostly women, in rural employment potential.

7.21 At current levels of technology there would be another 60 million man days of employment in manufacture.

7.22 In the value chain, there would be at least 5 million man days in support activities, by product utilizations, services and logistics to the value chain and related employment by service providers, machinery manufacturers and the like.

7.23 Employment creation will be automatic and does not require currently any special programs. Though it would welcome if the NREGS could bring some benefits to cashew production in key areas.

FAR REACHING BENEFITS FOR INITIAL INVESTMENTS

7.24 Initial investment in cashew fetches far reaching benefits at the farm level as the tree crop can yield up to 35 years

7.25 The reasonable input-output ratios are sufficient to warrant an increase in investment outlook for investment in cashew cultivation.

IMPROVES NATURE, ECOLOGY AND ENVIRONMENT.

7.26 It is confirmed cashew was used extensively in West Coast India to improve soil conservation.

7.27 Tree cover will automatically improve CO_2 absorption in the atmosphere.

7.28 Cashew improves any fallow or degraded environment.

7.29 Trees contribute to ecology – retain top soil, provide organic matter and give output over a period of time.

SUPPORTS ALL SECTIONS OF SOCIETY

7.30 Cashew supports all sections of society. Therefore it is not to be considered elitist from the producer point of view. The consumption by higher income groups in fact sustains incomes in the lower income and middle income group engaged in cultivation as well as manufacture.

IMPORTANT TO HAVE SENSE OF ACHIEVEMENT.

7.31 India hardly noticed that it had 99% share in world cashew in the 1960's.

7.32 Achieving a production of 1.95 million tones will make it possible for India to claim proudly that it is the world's largest producer, manufacturer, importer, exporter and consumer of cashews.

A DETAILED ANALYSIS OF IMPACT OF CASHEW DEVELOPMENT IS TO BE COMMISSIONED BY CEPCI.

An estimation of kernels production and exports is re-produced in **Table 6**

Table : 6

ESTIMATION OF KERNEL PRODUCTION & EXPORTS - 2020

(Qty in 000 mts)
(Kg – 22.68)

SL NO		2008	2012	2016	2018	2020
1	**INDIA 'S PRODUCTION**	QTY	QTY	QTY	QTY	QTY
	(a) DCCD *	665,000	1,120,000	1,480,000	1,750,000	1,950,000
	(b) IMPORTS	649,000	700,000	700,000	700,000	700,000
	TOTAL	**1,314,000**	**1,820,000**	**2,180,000**	**2,450,000**	**2,650,000**
3	**KERNEL**					
	(a) EXPORTS	110,950	186,000	223,000	250,000	275,000
	(b) DOMESTIC	130,805	227,000	272,000	306,000	326,550
	TOTAL PRODUCTION OF CASHEW KERNELS	**241,755**	**413,000**	**495,000**	**556,000**	**601,550**

vision2020/ggp/j

Notes :

1. Cashew kernel quantity is assumed at 22.7% of rawnut weight
2. Indian production is assumed at DCCD figures. This is disputed by trade and has not been challenged to work at accuracy.
3. Production in India in 2020 is assumed at 19.50 lakh mts.
4. Exports objective for 202 is at 275,000 mts
5. Domestic is assumed as production – exports
6. Total manufacturing through put in 2020 will be 2,650,000 mts
7. Total kernel output in 2020 would be 601,550 mts.

EXECUTIVE SUMMARY

- Impact of RCN production tremendous on Indian economy.
- Meets Millennium Development goals at the least cost.
- Provides valuable material which is drought proof.
- Can substitute food for those who can afford sparing cereal for the middle class and poor sections.
- Good impact on State revenues by way of VAT.
- Employment creation productive both in farm sector, manufactures and value chain.
- Far reaching benefits for initial investments.
- Improves nature, ecology and environment.
- Supports all sections of society.
- Important to have sense of achievement.

CHAPTER - 8

IMPORT OF RAW CASHEWNUT-SCENARIO

INDIA IMPORTS FROM 27 COUNTRIES.

8.1 India has a long history of raw cashew imports from over 6 decades. Indian traders who established outposts in African countries could access the materials and manage the shipment of this produce to India. India had 99% share in world cashew throughput up to 1960's.

8.2 India imports from every available source in the world. The genetic origin for raw cashew as a tropical tree-nut is attributed to South America which currently is Brazil. Brazil had a raw cashew production program from 1960's. This challenged India's monopoly. Historically, Brazil has not emerged as an exporter of raw cashew with one or two exceptions. It focuses on manufacture and has an informal restriction on export of raw cashews.

8.3 Vietnam evolved a raw cashew production from early 1980's after the end of the war. Vietnam was a key supplier of raw cashews to India. It emerged as a competitor for manufacture only in the 1990's. Now it is a major competitor to India in cashew kernels. It has also emerged as a competitor in manufacture of cashew kernels by sourcing from other nations.

8.4 India as a destination for raw cashew is recognized politically and economically, especially by countries from West Africa.

8.5 India is the destination which makes some nations like Guinea Bissau where 35% of its total export earnings come from raw cashews.

8.6 It is vital for the industry to document this aspect

8.7 The CEPCI has compiled statistics from inception of raw cashews which requires to be mined for data.

8.8 The CEPCI must evaluate the role of imports in exports from now onwards critically and evolve a policy for the industry on imports.

ERSTWHILE EXPORTING COUNTRIES HAVE TURNED AGGRESSIVELY INTO MANUFACTURERS.

8.9 Vietnam has turned aggressively into manufacture. In the last 9 years its manufacture has grown in leaps and bounds.

8.10 India's competitive position has been retained, but the volume of growth in world consumption is attributed to Vietnam's growth in production as well as manufacture.

8.11 Mozambique which was a major manufacturer in late 1970's after a spree of state, directed investment turned into an exporter of raw cashews after 1984. Mozambique became an exporter of nearly entirely its crop of 100,000 mt.

Now, it has an industry which actively campaigns for control on exports of raw cashews and seeks promotion of cashew kernels manufactured in Mozambique. It is now emerging as a serious competitor. Kenya has followed this trend.

8.12 Tanzania is a major strategic supply nation to India. Of late, there has been a revival in industry and has become an exporter of cashew kernels.

8.13 Indian exporters and industry have to make a serious introspection on the effect of imports on exports, value addition and protection of sources, promotion of production abroad, effect of Indian production and imports in the future. This requires CEPCI to have an initiative to have a series of programs bringing industry together over a period of 5 years.

8.14 Indian manufacturers will have to benchmark themselves against world competition and continuously work towards competitive advantage.

DECLARATIONS ARE COMING FORTH THAT GOVERNMENTS WILL ENCOURAGE MANUFACTURE THAN EXPORT OF RAW CASHEWS.

8.15 There are a lot of political initiatives evolving in raw cashew exporting nations to have manufacturing activity. Every nation likes to convert primary produce to manufacture.

8.16 There are initiatives of other agencies including multilateral agencies who take a view on this.

8.17 Requests also have come from Government of India as to whether Indian industry would be willing to collaborate or invest in Africa as India is friendly to all nations who export raw cashews.

8.18 A more liberal and studied position on this has to be taken by CEPCI in responding to such initiatives.

8.19 The CEPCI and its members must be active in the economic relationship with all nations as, currently it constitutes 50% of the industry throughput.

THIS MAKES DOMESTIC GROWTH INEVITABLE.

8.20 The CEPCI and its members have to arrive at a studied position on whether reliance on imports must continue for exports.

8.21 It must also be concluded whether the trend of imports will continue at the pace which happened in the last fifteen years and whether it can sustain.

8.22 The CEPCI must therefore take a position that domestic growth of raw cashew is inevitable and must be promoted for the sake of export.

INDIA'S IMPORT FIGURE FROZEN FOR NEXT 12 YEARS

8.23 As it is essential to build a scenario, given the current political and economic situation the Vision envisages that India's import figure will be frozen for next 12 years. If it grows, India's export will grow. If it shrink's India's exports will fall. This needs to be confirmed.

8.24 Assuming that India's import figure is likely to be 600,000 metric tones, the current export figure of 115,000 is sustainable. Otherwise it is bound to decline unless other shift takes place in the world markets.

8.25 The attempt should be to maximize exports out of these imports from competitive advantage.

8.26 In fact, the active promotion should be to export out of Indian production.

SCOPE FOR CASHEW PRODUCING COUNTRIES TO GROW – INDIA MUST HAVE A POLICY.

8.27 Should India have a policy for growth in other nations? The answer is yes, as competitive advantage of these nations to grow is higher than ours.

8.28 Vast availability of land and ability to grow well are absolute advantages to both growing nations as well as for India to import and manufacture.

8.29 In consultation with the Ministry of Commerce, CEPCI must engage all growing nations to grow more and have imports increased into India as it will strengthen India's competitive position.

CURRENT PROBLEMS ON RAW CASHEW IMPORTS TO BE VIEWED FOR SOLUTIONS AND OPPORTUNITIES.

8.30 There are various problems on raw cashew imports. They are else where stated as also summarized in **Appendix 5**

8.31 These must be viewed as opportunities for solutions in the larger context of growth of crop as well as growth in consumption globally.

8.32 Indian manufacturers should develop higher competitive advantages so economies of scale are not lost and marketing will develop an edge with a good management of throughput and supply of cashew kernels.

8.33 Current problems can be resolved with better trade practices and dialogue with stake holders.

8.34 The CEPCI should initially organize a workshop with traders, carrier's stakeholders to initially identify the problem areas and convert them into solutions which will later emerge as opportunities.

WORLDWIDE EXPERTISE CAN BE TAPPED BY INDIA ON RCN.

8.35 India has developed a huge expertise, research, development and cultivation practices in raw cashews.

8.36 There are many advantages in other parts of the world in cultivation and product quality which India can emulate.

8.37 Such experiences are gathered during visits and interaction.

8.38 The CEPCI can organize a World Cashew Scientific Congress within three years with assistance from a multilateral agency. This will pool scientific and development activity for the commodity.

DEPENDENCY ON IMPORTS TO BE ANALYZED. CURRENT AND POTENTIAL CONFLICTS REQUIRE RESOLUTION.

8.39 As mentioned earlier, India is dependent on imported raw cashew for exports. This needs to be deeply analyzed by importers/manufacturers as well as independent analysts to have an outside look.

8.40 Imports can be perceived as a threat by domestic producers if there are problems. This should be approached upfront.

8.41 Conflicts can be listed for resolution. It is better to have conflicts analyzed and met rather than have confrontation from different stakeholders.

8.42 Indian producer cannot be forsaken and domestic political interest always centers on the producer. Manufacturer/exporters must have a strategy to engage producers for exports.

TECHNO-ECONOMIC STUDY ESSENTIAL ON INDIAN POSITION VIS-À-VIS REST OF THE WORLD ON RCN.

8.43 There is a necessity for CEPCI to organize a techno economic study on Indian position and rest of the world

8.44 Such an exercise requires framing a mandate and be discussed amongst members.

8.45 Indian manufacturers cannot afford to be complacent about past trends and have to cognize potential problems well before they are likely to arise.

8.46 A techno economic study which will benchmark India's competitive position could as well be taken as markers by competitors. This is a risk worth engaging in rather than be blind to facts and outcomes of external policies which hit our exports suddenly.

8.47 Any systematic promotion policy takes into account the internal and external economic background and a scenario needs to be built and understood on the Indian position.

The import of RCN currently has a series of serious issues. The estimated produce value lost to the value chain can be as high as Rs. 125 crores per annum. Addressing those issues could be a win-win situation for the cashew value chain which translates to benefits to the consumers.

These need to be resolved and addressed at the earliest with co-operation amongst competitors and engaging in a serious dialogue for scientific as well as economic solutions to the current problems. Engagement can also be initiated so that these problems do not again.

Chronic issues need to be given priority and support of infrastructure should be built in India to accommodate the progressive handling of the produce as a raw material for exports.

EXECUTIVE SUMMARY

- India imports from 27 countries.
- Erstwhile exporting countries have turned aggressively into Manufacturers.
- Declarations are coming forth that Governments will encourage manufacture than export of raw cashews.
- This makes domestic growth inevitable.
- India's import figure frozen for next 12 years.
- Scope for cashew producing countries to grow – India must have a policy.
- Current problems on raw cashew imports to be viewed for solutions and opportunities.
- Worldwide expertise can be tapped by India on RCN.
- Dependency on imports to be analyzed. Current and potential conflicts require resolution.
- Techno-economic study essential on Indian position vis-à-vis rest of the world on RCN.

Table : 7

IMPORTS OF RAW CASHEWNUT INTO INDIA (qty in mt)							
SL NO.	**COUNTRIES**	**2005**	**2006**	**2007**	**2008**	**2009 * (aug 09)**	**2010**
1	Benin	59709	63226	59259	84698	111279	
2	Brazil				0	484	
3	Burkinafaso	269	0	0	33	0	
4	Cambodia	145	373	0	0	756	
5	China	0	0	350	0	0	
6	El. Salvador	284	259	183	205	0	
7	Egypt	0	0	16	0	0	
8	French Guiana	347	0	0	0	0	
9	Gambia	12215	20617	23544	23456	24510	
10	Ghana	32667	39789	29898	42113	37731	
11	Guinea	4029	4130	8742	12432	13410	
12	Guinea Bissau	93965	64718	114042	86505	73897	
13	Hong Kong	69	378	152	0	0	
14	Iceland	0	0	0	0	51	
15	Indonesia	82679	50432	54371	57329	11787	
16	Ivory Coast	144310	184594	202514	215921	172149	
17	Kenya	6844	3880	2120	6813	5612	
18	Malawi	53	0	0	0	0	
19	Mauritious	0	1858	0	0	0	
20	Madagascar	2261	2214	1166	385	54	

IMPORTS OF RAW CASHEWNUT INTO INDIA

(qty in mt)

SL NO.	COUNTRIES	2005	2006	2007	2008	2009 * (aug 09)	2010
21	Mozambique	48250	29678	22774	28722	6784	
22	Myanmar	73	0	0	0	0	
23	Nigeria	16637	21912	18854	13223	15519	
24	Panama	75	149	100	140	92	
25	Philippines	756	249	0	0	0	
26	Saudi Arabia				0	64	
27	Senegal	6628	10139	10064	4389	10415	
28	Singapore	0	2819	803	559	528	
29	South Africa	0	0	0	15	1553	
30	Srilanka	0	0	0	0	344	
31	Sweden	0	0	0	0	0	
32	Taiwan	0	0	0	36	0	
33	Tanzania	49582	69656	43805	71599	61773	
34	Thailand	0	0	0	0	0	
35	Togo	3120	403	122	384	414	
36	United Kingdom	677	0	18	0	0	
37	Viegin Is US				0	98	
TOTAL IMPORTS		**565644**	**571473**	**592897**	**648957**	**549304**	

Source : CEPCI Cashew Bulletin

Table : 8

IMPORT OF RAWCASHEWNUTS THROUGH DIFFERENCT PORTS IN INDIA

(Qty in Mt)

Year	Cochin	Mangalore	Tuticorin	Quilon	Madras	Others
1965-66	112606	5733	0	41799		
1966-67	82473	6815	0	64103		
1967-68	128015	5201	0	46555		
1968-69	99259	5182	0	63651		
1969-70	114095	3547	3048	55630		
1970-71	95195	5258	3353	40670		
1971-72	125861	3850	0	68580		
1972-73	93525	5612	0	55057		
1973-74	136660	7859	3377	37397		
1974-75	96001	6441	0	13252		
1975-76	50716	3004	0	17689		
1976-77	37754	4229	0	17353		
1977-78	6452	1598	0	20842	0	
1978-79	16583	1007	0	13144		
1979-80	10632	528	0	7215		
1980-81	14846	0	13271	0		
1981-82	395	0	12689	35		
1982-83	16796	0	501	0		
1983-84	10115	0	3839	0	1098	
1984-85	7635	0	20440	0	2660	
1985-86	23205	0	14419	0	1256	
1986-87	27230	0	22195	0	3645	
1987-88	13962	379	13868	0	779	
1988-89	14592	0	21730	0	1386	
1989-90	4898		35024	0	2859	
1990-91	1774		57872	0	9737	

IMPORT OF RAWCASHEWNUTS THROUGH DIFFERENCT PORTS IN INDIA (Qty in Mt)						
Year	Cochin	Mangalore	Tuticorin	Quilon	Madras	Others
1991-92	11051		100740	0	3556	
1992-93	20821		123934	0	0	
1993-94	5576		167053	0	3423	25
1994-95	6292		221415	0	1042	143
1995-96	59542		206972	0	0	9555
1996-97	78625		151303	0	17	2004
1997-98	109660		167352	0	0	1204
1998-99	156488		126404	0	253	4844
1999-00	152516		97226	0	0	1513
2000-01	191579		94216	0	0	2586
2001-02	143040	220	95315	0	0	NA
2002-03	249970	304	150382	0	0	NA
2003-04	294551	2161	155686	0	0	NA
2004-05	283149	35350	260385	0	0	NA
2005-06	306765	33782	224646	0	0	207
2006-07	322443	42801	219862	0	0	938
2007-08	372497	60429	172018	0	0	1029
2008-09	345364	82054	177789	0	0	446
2009-10	273035	67687	170915	0	0	

Source : CEPCI, Cochin/jayashree
NA = not available
2009-10 – figures only till Sept 09

CHAPTER - 9

RAW CASHEWNUT-IMPERATIVES

RAW CASHEW NUT – A CLARION CALL FOR ACTION

9.1 RCN development requires a clarion call for action. Action implies that the farmer need not be goaded, persuaded or pushed into going in for cashew cultivation. The action must be to demonstrate that it is worthwhile for the farmer to act.

9.2 This call for action can come from the cashew stakeholders. Traders, manufacturers, bankers, the rural community should be the catalysts.

9.3 The benefits of cashew cultivation though known must have widespread acceptance. This needs to be propagated.

9.4 This call must essentially come from Government as it will be considered as credible. Government of India and State Governments already are aware of the importance of cashew. The requisite now is the call for action.

9.5 CEPCI as part of the Vision Mission must engage itself at all levels of Government, Central and State to persuade the Executive to act. The required political support is currently available and can be taken to the next level.

THE BENEFITS TO THE RURAL ECONOMY CALL FOR WIDE STATE SUPPORT.

9.6 Government – Central and State are engaged in massive exercises and have continuing programs for enhancing the rural economy.

9.7 CEPCI as part of the Vision program can tap into these initiatives in cashew growing areas.

9.8 State support primarily can mean financial. It can also mean the provision of the State machinery and that of agencies under it.

9.9 The State must be convinced that the benefits under cashew far out-weigh the nominal attention and expenditure it needs to incur.

9.10 The cashew economy belongs to the rural economy till the stage of production and the urban and semi-urban economy and also the rural economy for consumption in products as well as bye - products.

9.11 The rural has a strong political base in the Indian context. This need to be tapped into and the entire mission should be launched from a rural base.

MISSION APPROACH NECESSARY FOR 15 YEARS.

9.12 Cashew needs a mission approach for 15 years. This will ensure a reasonable perpetuity for 35 years as cashew is a tree crop.

9.13 Mission approach is not new to the country. The commodity boards have always adopted a mission approach. Mission approach have been adopted for the horticulture sector as a whole (NHM), Cotton and related agricultural produce.

9.14 Mission approach acquires a focus and will be tuned to results. It responds quickly to field interest and generates enthusiasm and motivation. The current approach is departmental and is suited for normal growth. A mission approach generates rapid growth.

9.15 The World Bank project on cashew in 1977 in India also had a similar approach and could reach the proposed areas quite efficiently and gave an impetus to a scientific approach in cashew cultivation. Codifications of package of practices and validation as well as development of HYV were a direct result of the approach under the World Bank program.

9.16 The 8th, 9th, 10th and 11th plan successively have given adequate funding to the cashew sector. There is a possibility of expanding the same into the mission approach

ORGANIZATION ESSENTIAL: THE DEBATE ON A CASHEW ORGANIZATION LIKE THE BOARD.

9.17 There has been a public debate in the nation on the constitution and functioning of a Cashew Board.

9.18 The official position of CEPCI is that a Board is not essential and the production function can be sufficiently handled by the existing mechanism.

9.19 The constitution of CEPCI also has been amended to permit it to embark on initiatives relating to cashew cultivation for export.

9.20 Enough organizational strength exists in the nation to have an approach without a dedicated organization. When the approach is done, it is necessary for the Mission to confine itself to cultivation aspects, post-harvest and the industry is capable of absorbing the production.

9.21 A debate is essential on the finality of this proposition and the emphasis is that the production target should be achieved within the existing infrastructure.

USE OF TECHNOLOGY FOR HUMAN DEVELOPMENT.

9.22 As a large workforce in horticulture as well as manufacturing is present, the Vision envisages that the workforce in horticulture has to expand and the quality of workforce in manufacture will undergo a change depending on the method of processing adopted.

9.23 It is necessary that technology relating to harvest and post-harvest keep pace with the times. The technology on manufacture will have to get in pace with customer requirements as well as the economic environment.

9.24 It is important that costs of manufacture have to go down in real terms to sustain the economy and the value recovery should get higher. Productivity is possible only when technology is applied and there is immense scope for improvement of productivity in cashew growing as well as manufacture.

9.25 CEPCI must have a technology team initially starting with a Technology Officer who will assist the industry in this regard and eventually upgrade the quality of data, information and service on technology.

IMPACT OF CASHEW TO BE FELT VISIBLY INSTEAD OF THE HIDDEN AT PRESENT.

9.26 The impact of cashew on the economy is hardly felt. This is due to the nature of fragmentation of the industry. There is a need for public relations to convey the impact of cashew on the economy and citizens. This will shape public policy in this regard.

9.27 The understanding of the farmer of the cashew value chain is crucial. Farmer has to be involved in the process of improvement and again, has to be conveyed the benefit of his contribution.

9.28 There needs to be an understanding of the sociology of the farmer and his activity.

9.29 Again, the impact of cashew as a consumer item is hardly felt. It has its glamour as it is an inaccessible and expensive product.

9.30 Benefits on cashew consumption have to be spread even to the non-consuming population as they could make a choice when they have access or when they have a choice to buy the same on increasing incomes.

VALUE OF CASHEW AND NEGATIVE PERCEPTION.

9.31 There is a negative perception that raw cashews are cheap and cashew kernels are expensive.

9.32 There is no communication that the price of cashew is due to its lower yield, below 23% on an average.

9.33 The processing costs, taxation, transport costs and high value all contribute to costs and end up with consumer paying a price which seems higher.

9.34 The other negative perception of cashew kernel is that it is high in price. This has an explanation that its value is high as a product of nature of long effort and considerable skill in its making.

9.35 It is important for CEPCI to commission a price and value study and analysis through industry as well as expert channels. This should be relied on for communication.

EFFECT OF VOLUMES ON VARIOUS SEGMENTS OF THE ECONOMY: RURAL EMPLOYMENT, TRANSPORTATION, INDUSTRIAL EMPLOYMENT AND CONSUMPTION OF BYE - PRODUCTS.

9.36 A call for action requires objectivity. Mere exhortations or ad-hoc measures are insufficient.

9.37 The effect of the volume of production on various segment of the economy has to be measured.

9.38 CEPCI must commission a study on effect of cashew production and manufacture on rural employment, transportation, industrial employment and consumption of bye - products.

9.39 For instance, if a village produces 45 mts of material per year, then it can be said that the impact of that production would be Rs. 22.5 lakhs in that segment of the economy if the sale price is Rs. 50 per kg.

9.40 If 250 farmers are engaged in this cultivation, it can be said that family income of these 250 farmers is shared from cashew and other agricultural produce. If a family relies on cashew as its sole income, it has its impact.

9.41 Economic activity generated from trading can be measured. It can be said that Rs. 150 crores per annum is generated as incomes by traders handling raw cashew in India at 3% of the produce cost.

9.42 CEPCI should engage a study on transportation cost across sectors and study the impact of freight rates on export pricing.

9.43 Industrial employment data is sketchy. We say that over 600,000 employees are engaged in cashew manufacture. Can we say how much per district?

9.44 Data on consumption of by - products can have an impact. For instance, the industry co-generates its own energy. What is the impact on saving of firewood or other petroleum based energy? This is a valuable calculation that can convey that the industry has low consumption of fossil fuels.

9.45 The purpose of this discussion is to generate data and information for policy makers to justify a call for action that cashew has a higher input-output ratio when incremental investment is made into the cashew economy.

ACTION WILL HAVE VERY SHORT PERIOD PAYBACKS AND MEET MILLENNIUM DEVELOPMENT GOALS.

9.46 The Millennium Development goals are defined globally (**ref. Ch 7 : 7.6**). They are meant to be followed by developing countries and developed countries, as well as international agencies help greatly for community and nations to achieve the Millennium Development Goals.

9.47 Justification for state support and investment can come easily as cashew gives enormous benefits.

9.48 Improvement in ecology as land bereft of green support and cultivation in water scarce areas but with adequate rainfall to have tree cover from a tropical tree which yields sufficient return.

9.49 Generation of additional return on land by the producer in rural areas which will support a rural family with additional income.

9.50 Generation of employment when it is scarce in summer, especially where agriculture is normally supported by a single rain fed crop.

9.51 Rural spend of incomes from cashew regenerates the rural economy as it goes into consumption of basics like clothing, utensils, education of children and the like.

9.52 CEPCI should commission a study on achievement of Millennium Development Goals through the development of cashew.

WILL PROVIDE HOLISTIC LOW COST DEVELOPMENT BENEFITS

9.53 Cashew will provide holistic low cost development benefits to the areas covered by the cashew economy

9.54 Cashew industry does not produce any waste and has a very low consumption of electricity relative to the cost of manufactured produce.

9.55 Incomes from cashew to the employees are gainful and increase household consumption expenditure where otherwise employment is scarce.

9.56 Rural based industry contributes to an activity which overall improves the economic environment of the village.

EXECUTIVE SUMMARY

- RCN – A clarion Call for Action.
- The benefits to the rural economy call for wide State Support.
- Mission approach necessary for 15 years.
- Organization essential: the debate on a cashew organization like the Board.
- Use of Technology for Human development.
- Impact of Cashew to be felt visibly instead of hidden at present.
- Value of cashew and negative perception.
- Effect of volumes on various segments of the economy: rural employment, transportation, industrial employment and consumption of byproducts.
- Action will have very short paybacks and meet Millennium Development Goals.
- Will provide holistic Low cost development benefits

Table : 9

Pricing Trend of Raw Cashew nut in different States					
(Price Rs./Kg.) **N. A.** – Not Available					
Year	**Kerala**	**Karnataka**	**Andhra Pradesh**	**Tamil Nadu**	**Goa**
1990	12.25	14.5	13	13.19	16.75
1991	14.5	19.75	17.5	21.25	23
1992	22	25.4	20.75	23.51	29.13
1993	20.63	19.5	19.5	19.6	24.13
1994	20.5	21.5	23.2	22.8	29.5
1995	25	26	25.5	27.5	32.3
1996	29	29	29	29	30.15
1997	26.4	21.5	30	24	33.1
1998	30.6	25	30	24	33.1
1999	42.3	N. A.	33.75	N. A.	47
2000	42	47	34.5	36.2	46.5
2001	26.75	29.9	28.25	29.6	33.5
2002	25	28	27.75	29.14	34.1
2003	29.75	31.5	28	35	35.5
2004	28.5	30	28.75	35.63	35.1
2005	37.88	35.2	38.1	47.75	45.2
2006	28.35	28.7	31.7	37.2	37.6
2007	27.1	30.5	29.4	36.25	37.7
2008	34	33	30	36.5	47.2

vision2020/ggp/j

* These are indicative prices. Prices vary during a year by +/- 25% on account of the fluctuation and quality
* A methodology for price records across the line is necessary to evolve.

CHAPTER - 10

RAW CASHEWNUT-ACTION PLAN

ACTION NEEDED.

10.1 It must be agreed from afore said positions that action is needed. There is very little uncovered position in cashew that action needs to be reserved or deferred. In fact, there must be urgency for action.

10.2 Action required is at all levels - from policy to action, from stakeholders to motivate themselves and key performers into action and most of all action is to be distinguished from mere activity which does not produce any results.

10.3 The value chain is described. Any action cannot be confined to one part of the value chain. It must move on from the beginning to end in an effortless.

10.4 Action must be visible and must have a multiplier effect. This implies that action must be worthy of emulation. A competitive atmosphere will prevail.

PLANNING ACTIVITIES TO ROLL ON TO ACTION.

10.5 Cashew has been covered in national and state level policy. The Common Minimum Program mentioned it. It has been included in the Plan agenda and discussed thoroughly at national and state levels.

10.6 Plan allocations have been substantial and there is room for access to more funds under Plan, State and special programs like the National Horticultural Mission.

10.7 The plan should move to action. The transfer of technology and conveyance of knowledge in all disciplines related to cashew need to move to the individual farmer.

DISTRICT AND STATE LEVEL ACTION PLAN NEEDS COHESION AND DIRECT APPEAL

10.8 The State level action plan must be scoped down to the district level. In turn it must come to taluk and village levels.

10.9 There needs to be a direct appeal from all quarters and stakeholders goaded to action.

10.10 It needs cohesion. There can be no difference of opinion or hesitancy on the issue of cashew nut development.

PACKAGE OF PRACTICES NEED TO BE FIRMED UP AND DELIVERED AT FARM LEVEL.

10.11 Time and again, the Package of practices have been evolved. Introduction of package of practices began in 1980's on validation by Universities.

10.12 This need to be delivered at farm level as there is no application at all of package of practice in most instances and even if it is done it is done half - heartedly. There is hardly any conviction of taking cashew cultivation seriously.

10.13 Package needs to be updated again and applied to the farm level. This will have to automatically be carried forward laterally from farm to farm. Painstaking work leads to success and success will be emulated rapidly in the farm sector.

DEMONSTRATION FARMS – WILLINGNESS OF INDUSTRY PARTICIPATION.

10.14 Demonstration farms are actively promoted and set up by Governments and agencies. Of late, we are not seeing much of demonstration farm activity. The need for demonstration farms is all the more felt in cashew.

10.15 Industry is willing to participate in development of demonstration farms. This must be cognized and actively pursued by DCCD.

10.16 If one factory adopts one farm as a demonstration farm, there will be over 2000 demonstration farms in the country which will be in turn guiding the 200,000 farms that will eventually come up in the country.

10.17 The CEPCI and DCCD must enter into an MOU on how industry can collaborate with policy makers, development agencies, research institutions and farmer groups.

10.18 Participation via demonstration farms can be established to increase the visibility of industry institute participation as well as making raw cashew production a mission issue for the industry.

INDUSTRY CAN WORK WITH THE FARMER.

10.19 There are many ways industry can work with the farmer. One, reach him in the value chain through the trader and establish empathy. This will give increased self esteem to the farmer and encourage farmer participation in development processes.

10.20 Industry can work with around 10,000 farmers through a registration process on a sampling basis to determine crop forecasting in different regions. This makes farmers themselves enumerators on an agreed scientific program. The farmers can be linked to a multi - disciplinary Forecasting Group with CEPCI as the Secretariat and DCCD as the Co-ordinator.

10.21 This will enable reasonable forecasting of raw cashew production in India and also provide explanation to regional variations and aspects that affect the crop in the near term to the long term.

10.22 Industry can also help in the evaluation of post-harvest techniques and their effects on kernel quality.

10.23 Industry should participate in increasing farm income through productivity without an increase in raw cashew prices except on fundamentals and when consumers pay higher prices for finished outputs.

10.24 This can mean support in bye - product operations. Cashew apple products like ethanol, cashew apple liquor and Cashew RTS drinks all require industrial expertise. Cashew manufacturers can join hands with technocrats to create a mass market for cashew Apple bye products.

VALUE CHAIN CAN BE DESCRIBED TO GOAD FOR ACTION

10.25 The entire value chain from grower to consumer needs to be described to policy makers and action oriented leaders to goad them into action.

10.26 This keeps the involvement of all concerned very high and has high catalytic value.

10.27 The CEPCI must make a program to integrate and network all stakeholders. This is a missing element that needs to be linked.

10.28 The value chain is picturized in **Appendix 6**.

ACTION FROM STATE GOVERNMENTS

10.29 There are 10 State Governments actively involved in RCN production: Kerala, Karnataka, Goa, Orissa, Maharashtra, Gujarat, Tamilnadu, Andhra Pradesh, Chattisgarh and West Bengal. North Eastern states contribution should also be reckoned.

10.30 The State Government must map the potential for raw cashew production in the respective area based on the matrix to be developed after due deliberation.

10.31 Each state can arrive at its potential. The tentative potential can be :

Kerala	*240,000 Mts,*	*Karnataka*	*400,000 Mts,*
Goa	*45,000 Mts,*	*Maharashtra*	*450,000 Mts,*
Gujarat	*125,000 Mts,*	*Tamilnadu*	*200,000 Mts,*
Andhra	*350,000 Mts,*	*Chattisgarh*	*100,000 Mts,*
Orissa	*450,000 Mts,*	*West Bengal*	*100,000 Mts.*

10.32 These are indicative figures and can be fine tuned when actual data collected will validate the potential.

10.33 The State Government must catalyze the operation. Central funds provided under various programs are canalized through State Governments. The State Governments also need to pool resources as the Millennium Development Goals are met which otherwise require transfers without productive activity.

10.34 State Governments must actively collaborate with the stakeholders in their respective areas to begin the program and oversee it to fruition.

ACTION FROM CENTRAL GOVERNMENT

10.35 The Central Government can take policy to action through commitment of resources and acting as a collaborator for all State Governments and stakeholders.

10.36 There is a potential for diplomacy on cashew as it is truly global in its reach. Central Government can also use its foreign policy to direct raw material to India from competitively produced countries.

10.37 The Central Government can mandate resources under ICAR, Dept. of Science and Technology to various programs which generate benefits to the public and ensuring that the program is satisfying the criteria for development.

10.38 The Central Government can enable policy directions to remove hurdles which are hurting competitiveness and determine from time to time the support required from agencies to the cashew economy.

10.39 The Central Government needs to set the objectives and time lines for achieving the national goal of production of 1.95 million tons and export of 275,000 mts of cashew kernels.

AGENCIES CAN PROVIDE ASSISTANCE

10.40 Various agencies can provide assistance to the stakeholders.

10.41 The agencies are ICAR, Directorate of Cashew nut Development, Department of Science and Technology, Central Food Technology Research Institute, CSIR Institutes, National Institute of Nutrition, Institutes of Technology and Engineering Colleges, Universities of Agricultural Sciences, Universities and Colleges, NABARD, Grameen Banks, Ports and Transport Sector agencies, Banks, Insurance Companies and the like.

10.42 The CEPCI needs to engage with institutions at all times to make facilitation available to cashew growers, manufacturers and exporters.

10.43 International agencies interested in the subject, particularly multilateral bodies and Institutes dedicated to rural development and Millennium Development Goals need to be engaged by CEPCI for assistance to the cashew sector.

EXECUTIVE SUMMARY

- Action needed.
- Planning activities to roll on to action.
- District and State level action plan needs cohesion and direct appeal.
- Package of Practices need to be firmed up and delivered at farm level.
- Demonstration farms – willingness of Industry participation.
- How industry can work with the farmer.
- How value chain can be described to goad for action.
- Action from State Governments.
- Action from Central Government.
- How agencies can provide assistance

CHAPTER - 11

COMPETITIVENESS, POST HARVEST, BY-PRODUCTS

INDIAN INDUSTRY NEEDS TO BE COMPETITIVE

11.1 India was the world's largest producer and exporter of cashew kernels. It had a 99% share in the world markets till mid 1970's.

11.2 Competition came in from Brazil which developed an active cashewnut industry program from cultivation to industry. Proximity to USA has been a major advantage and US importers actively encouraged Brazil to produce and supply cashew kernels.

11.3 Competition from Brazil gave an impetus to Indian competitiveness. However, India depended heavily on imported raw cashew supply. This declined to an all time low in 1984. This coincided with the failure of protectionist policies of African nations.

11.4 Due to lack of agricultural marketing support, crop yields, harvesting, transportation in readiness for exports and macro economic conditions resulted in decline in availability of raw cashews as also failure of industry.

11.5 Liberalization processes and active assistance from Multilateral agencies like FAO and World Bank resulted in growth of cashews at over 14 African countries, Indonesia and Vietnam in S. East Asia

11.6 Raw cashew availability increased exponentially from that period. On one occasion, India bought over 80,000 Mts from Vietnam.

11.7 Vietnam Government encouraged the cashew industry to grow in the 1990's. The third force emerged in cashews and competition was severe.

11.8 A marked effect of competition was that Global consumption grew enormously with increased production. Study and research will reveal that this was done without marketing or an inventory crisis with producers.

11.9 Today India, Vietnam and Brazil are three dominant producers with two minor producers Mozambique and Tanzania and other micro producers like Sri Lanka, Kenya and similar countries who do active manufacture.

11.10 Indian industry needs to be competitive. This can be done and should be the area of focus in the implementation of the Vision.

SUSTAINED COMPETITIVE ADVANTAGE CAN BE BUILT UP

11.11 India has the availability of factors, the knowledge and the organizing ability to keep its competitive advantage high. To meet competition from Brazil and Vietnam and also the possible replication from other producing countries, CEPCI must make a rapid assessment of the competitive advantage of Indian cashew industry.

11.12 Competitive advantage can be benchmarked against Michael Porter's seminal work on Competitive advantage of firms and nations – **Appendix 7.** Convenient and easy to understand, this will help policy makers as well as individual units to understand the situation.

11.13 The cashew industry in India (as well as Vietnam) will come under the category of "fragmented industry".

11.14 If the concept is well understood, then the industry can arrive at some consolidations which will improve the competitive advantage.

11.15 It is within India's reach to build up competitive advantage as it has sufficient diversity and knowledge base to keep its position unchanged.

STRENGTHS IN INDIAN PRODUCE MUST BE LEVERAGED

11.16 Indian produce has strengths. They are flavor, taste, quality, yield and a visibly good characteristic.

11.17 This can be further improved due to the strengths in scions and genetic development to date.

11.18 Micro nutrients and good orchard management can be a positive contributor to increase in yield.

11.19 Proximity to industry, ability to work closely with farmers in the future, Government policy to encourage horticulture and the possibility of economic gains leverage the Indian produce to the global market.

11.20 Many countries have exclusive preference for India and many users and manufacturers have declared their preference. This is possible due to the inherent quality advantages in Indian produce or Indian manufacture.

11.21 The increased availability on implementation of the vision in the farm sector will directly contribute to strengths in exports.

FACTOR AVAILABILITY AND TOTAL FACTOR PRODUCTIVITY

11.22 The factors of production as described traditionally are land, labour and capital. All three are abundant in India.

11.23 There is no lack of competitive advantage on account of factors. In fact there is huge advantage if they are leveraged for productivity.

11.24 The cashew industry has a great history of tremendous organizational ability and resilience to various vagaries that the industry has to face on all fronts.

11.25 The process of technological upgradation and introduction of automation will involve more attention.

11.26 If increase in production can occur with labour being constant, there will be a sharp increase in the productivity of labour. The concept of total factor productivity will come into place.

11.27 This will result in reduction of inventory, economy of scale, better control on manufacture, adherence to good manufacturing practices and reduction of risks.

11.28 The traditional approach of the industry has been to establish units where labour is abundant.

11.29 Recent management, education developments have resulted in better techniques and skills to find ideal locations for units.

POST HARVEST AREA CRUCIAL ACROSS THE WORLD

11.30 Due attention has not been paid to post harvest issues on raw cashew production.

11.31 An extract from J G Ohler, "The Cashew" is in **Appendix 8.** This explains clearly why post harvest issues should not be neglected by the producer. This must be actively propagated by the entire value chain.

11.32 Inadequate post harvest treatment can cause damage to the consumers. This actually reflects in lower value realization to the producer. It is in the self interest of the producer, improvement in post harvest treatment should be indulged in.

11.33 Frequently, trade is blamed for the situation. Intense rivalry and competition and acceptance of less than standard produce in the interest of acquisition of raw material have resulted in inadequate care of incoming checks at the time of handling the produce.

11.34 This has created indifference amongst producers as they do not see any "gain" in post harvest treatment. They perceive it as a "loss" in weight.

11.35 This perception is illusory. Producers lose far in competitiveness and value of the produce. Quality would be phenomenal if it became a globally accepted producer practice to dry cashew at the time of harvest itself.

11.36 CEPCI should take up the initiative of propagation of post harvest treatment amongst producers not only in India but globally.

BYE PRODUCTS CAN INCREASE AND SUSTAIN COMPETITIVENESS

11.37 Cashew has valuable bye products: Cashew shells, cashew testa (husk) and cashew kernel rejections.

11.38 There is scope for increase of value from bye products in India. This improves competitiveness.

11.39 Recent discovery on the food value of cashew apple residue after juice gives hope for better farm income when organized orchard management becomes a fact in India.

11.40 Cashew apple products can give easily upto one third of farm income. Cashew apple liquor is a sure way of easily realizing ex farm revenue in the form of juice for onward distillation.

11.41 It would be worthwhile for industry participants to encourage bye product growth in quantum and value.

DESCRIPTION OF BYE PRODUCTS AND POSSIBLE CONTRIBUTION

11.42 **Cashew apple:** cashew apple is the enlarged stem, also called the pseudo fruit. The raw cashew is attached to the belly of the cashew apple and removed at the time of harvest. In Brazil, extensive use of cashew apple is made as a food.

11.43 Cashew apple constitutes ten times the weight of the nut. Therefore, the estimated production of cashew apple would be 19.5 million tons when we reach raw nut production of 1.95 million metric tons.

11.44 Cashew apple can be made into liquor. When done well, it can provide Ready to Serve Drinks. Cashew apple residue also has tremendous food value. Cashew apple juice can also be made into ethanol. This will have a high value when petroleum product prices are high.

11.45 Cashew shells come out of manufacture. Shells production constitutes 70% of the raw nut through put. The estimated shell production potential in India is 7.7 lakh metric tons. Shell is used for making of Shell liquid.

11.46 Cashew shell liquid production happens only around 30% of its potential. The rest is burnt or wasted during production processes in conventional ways.

11.47 There is unrealized potential in terms of cashew shell liquid. CEPCI must commission a study on cashew shell liquid potential and economic benefits.

11.48 **Cashew Testa:** Cashew testa is the outer skin of cashew kernels. This has applications in leather processing and other beneficial uses.

11.49 Cashew kernel rejections have great potential in removal of the FFA and made into edible oil as well as edible meal. In the initial stages it has great potential as poultry feed. Currently it is used for making crude animal feed with rejection oil used in making of cheap soap.

11.50 In all, the estimated unrealized value at the current stage would be in the region of Rs 300 crores per annum. The potential after vision 2020 could be as high as Rs 3,500 Crores per annum from 2025 in terms of all by - products.

LIMITATIONS

11.51 When potential is highlighted, one must also be conscious of limitations.

11.52 By - products can be bench marked against alternatives available in the market place.

11.53 This makes financial planning uncertain and renders it as commodities. This inhibits the development of true value.

11.54 Dependency on the industry makes the bye product processor less competitive and has to factor high margins to offset non availability at times.

11.55 It takes time and energy of the entrepreneur to develop alternatives which is not compensated fairly.

11.56 Inadequacy of data can lead to poor development efforts. Data development cannot be done without institutional, state or industry support.

ANALYSIS OF PROCESS OPERATIONS TO REDUCE WASTAGE

11.57 Cashew manufacture is a complex process. It is made to seem easy due to years of practice. Even at a cursory outside view it appears as if it is an inefficient process.

11.58 Due credit has to be given to industry for having developed innovative techniques at a reasonable cost.

11.59 It is essential to develop a detailed analysis of process operations to enable efficiency to improve quality and value.

COMPETITIVENESS RANKING NEEDED

11.60 In modern times competitiveness has been reduced to objective ranking.

11.61 The CEPCI must commission a competitiveness study on cashew and determine the parameters which industry can bench mark against.

11.62 This will enable competitiveness ranking and can be bench marked against competitors.

11.63 The role of bye products in competitiveness should also be brought out in studies and shared amongst members.

EXECUTIVE SUMMARY

- Indian industry needs to be competitive.
- Sustained competitive advantage can be built up.
- Strengths in Indian produce must be leveraged.
- Factor availability and total factor productivity.
- Post Harvest area crucial across the world.
- Bye products can increase and sustain competitiveness.
- Description of bye products and possible contribution.
- Limitations.
- Analysis of Process Operations to reduce wastage.
- Competitiveness ranking needed.

Table : 10

EXPORT OF CASHEWNUT SHELL LIQUID THROUGH DIFFERENT PORTS IN INDIA

(Qty in Mt)

Year	Cochin	Madras	Mangalore	Tuticorin	Others	
1965-66	11792	22	280			
1966-67	9997	17	335			
1967-68	8495	10	306			
1968-69	8653	139	1258			
1969-70	7451	87	920			
1970-71	6263	109	1000			
1971-72	5244	38	35			
1972-73	4452	66	410			
1973-74	3449	106	419			
1974-75	5637	42	793			
1975-76	6624	70	644			
1976-77	4054	102	693			
1977-78	2029	114	380			
1978-79	4702	11	1104			

EXPORT OF CASHEWNUT SHELL LIQUID THROUGH DIFFERENT PORTS IN INDIA

(Qty in Mt)

Year	Cochin	Madras	Mangalore	Tuticorin	Others	
1979-80	11472	587	869			
1980-81	7863	785	358			
1981-82	4360	177	240			
1982-83	4260	15	1628			
1983-84	1466	45	1763			
1984-85	2662	25	724			
1985-86	1574	30	576			
1986-87	1745	33	938			
1987-88	3607	92	1885			
1988-89	890	3	2150			
1989-90	2000	48	966			
1990-91	2490	33	1898			
1991-92	2755	64	1723			
1992-93	2628	224	926	448	32	
1993-94	2432	926	517	318	308	
1994-95	1990	32	695	422	246	

EXPORT OF CASHEWNUT SHELL LIQUID THROUGH DIFFERENT PORTS IN INDIA

(Qty in Mt)

Year	Cochin	Madras	Mangalore	Tuticorin	Others	
1995-96	80	108	48	96	428	
1996-97	814	271	80	448	122	
1997-98	3021	773	0	128	524	
1998-99	1185	422	0	0	305	
1999-00	1040	149	290	47	404	
2000-01	907	202	577	0	560	
2001-02	1761	0	719	0	0	
2002-03	6424	0	791	0	0	
2003-04	6784	0	142	0	0	
2004-05	6674	0	800	0	0	
2005-06	5892	0	571	0	0	
2006-07	3736	0	1853	0	0	
2007-08	5410	0	1251	0	1152	
2008-09	2217	0	2589	161	2009	
2009-10	1250	699	968	0	8962	

Source : CEPCI, Cochin/jayashree

CHAPTER - 12

TECHNOLOGICAL UPGRADATION & MODERNIZATION

CASHEW INDUSTRY HAS A REPUTATION OF BEING A TRADITIONAL AND LABOUR ORIENTED INDUSTRY.

12.1 Cashew industry grew phenomenally from 1925 to date on the basis of growth in employment of labour, especially in rural areas. 95% of the cashew employees are women.

12.2 It is known in India as a traditional industry. Categorically, it belongs to a segment called SME, Small and Medium Enterprise.

12.3 Technology has been adequate for output. It has been evolved by entrepreneurship and innovation from within industry.

12.4 Most of the processes are skill oriented and Indian women excel in these skills. Entrepreneurs have brought in organizational effort to mobilize the factors.

12.5 It should be firmly believed from now onwards that cashew is manufacture. Every manufacture is a process though every process is not manufacture. It has been held by the Supreme Court of India that cashew is manufacture.

12.6 There is a tendency to under-value the importance of manufacture in the light of treatment of cashew as a commodity. Practiced enterprises view process with ease and also ignore vital components of manufacture.

This results in compromise and acceptance in product standards. These can be below standard, sub-standard or standard with non-conformities.

12.7 When cashew is viewed as manufacture, there will be a medium to long term view taken about the plant, investment, returns and satisfaction of requirements.

12.8 A factory in India undergoes about 30 local, State and Central legislative requirements.

12.9 Managing a large labour force is an inherent skill of Indian cashew industrialist.

IT IS NECESSARY FOR THE INDUSTRY TO HAVE TECHNOLOGICAL UPGRADATION AND MODERNIZATION.

12.10 In the light of growth in the industry and the business and social environment around India, necessity for technological upgradation and modernization has been recognized.

12.11 CEPCI is the only EPC recognized by the Ministry of Commerce and Planning Commission to have a plan program for technological upgradation and modernization.

12.12 The scheme has been well received and there have been improvements in outlook. Many industrialists have gone for upgradation on their own.

12.13 CEPCI must make this program more intensive over the years. It must have a technological development Officer who will collect and collate technology information for dissemination.

12.14 CEPCI must intensify efforts to channel technological development and update programs for industry and secure plan and financial assistance for the industry from time to time.

LABOUR COSTS ARE BOUND TO GO UP AND REAL COST OF AUTOMATION IS COMING DOWN.

12.15 Reduction in labour force meant for cashew is evident and growing. This phenomenon has resulted in attrition where employees are ageing and no replacements are available as the current workforce is not joining the cashew labour force.

12.16 In other cases, alternative employment in city based services sector is taking away the employment for cashew factories.

12.17 Even in villages, self employment schemes and reduction in the rate of growth of population will make cashew less attractive as an employment.

12.18 Unlike in the past, shifting to lower cost or higher labour availability areas is not likely to be easy. This phenomenon may materialize in the short term as replication of industry is easy.

12.19 Labour costs are going up by a minimum of 8% in India and 12 to 15% in the case of hardworking labour and skilled labour.

12.20 Automation was expensive in the 70's and 80's. In real terms, cost of equipment has come down due to material management, use of electronics and improved design and delivery capabilities.

12.21 Due to development of engineering expertise in India and Vietnam, low cost automation is possible.

12.22 Brazil has its own equipment generation and regeneration. It relies on sophisticated products from Europe or USA

ONE CANNOT DO AWAY WITH EMPLOYEES. THE PECULIARITIES OF CASHEW INVOLVE A MAJOR INVOLVEMENT OF THE HUMAN FACULTY.

12.23 One cannot entertain a dream that cashew can be totally automated. The intricacies of the produce and special requirements through which the product is handled require at least a third of the labour force.

12.24 The labour force is required in the farm sector, logistics, marketing and the support industries. Hence there will not be any loss of employment in the Indian economy.

ONE HAS TO INTRODUCE THE CONCEPT OF CREATIVE AUTOMATION.

12.25 One has to understand the difference between mechanization and automation. Mechanization has a trade off that could be destructive to cashews. Automation will be selective and should be made suitable to cashews.

12.26 What will be the scenario for existing industries when automation comes in? Will they cease operations or make way for larger units? This question comes forth.

12.27 If the vision materializes, there is scope for both in the next fifteen years as; current processing has several advantages currently over mechanized or automated processes.

12.28 Even when manual employees are substituted by machines and process equipment, equally skilled engineers and technically qualified people will be needed in the Industry. This will not come cheap and total employee costs are likely to be high.

12.29 CEPCI must organize an industry meet on automation beginning with regional workshops and culminating in a useful outcome on how its members look at the challenges of automation in the industry.

INNOVATION AND ADAPTATION ARE NOT NEW TO INDUSTRY.

12.30 Innovation and adaptation are not new to industry.

12.31 Industry has evolved successfully four different types of roasting.

12.32 It has adapted to chemical engineering concepts in roasting and in the oven suited for the product.

12.33 The development of vita pack and subsequent handling of the transition to packaging in multilayer bags has proved industry adaptability.

12.34 Industry needs to have a perspective on innovation. Innovation is a specific tool of entrepreneurship. Several theories exist on innovation and handling of the same.

12.35 Innovation will succeed most when the consumer and the final user of the product are kept in mind and needs satisfied.

12.36 Cashew is a global industry. Adaptation is essential and Indian industry must absorb global technology and make it suitable for India. The current support from Central Government and policy framework are conducive for modernization.

THE WORLD SITUATION IN TECHNOLOGY AND PROCESS.

12.37 The current situation in technology and process needs to be absorbed fully. The Indian industry now is sufficiently exposed to the consuming industry, competitors as well as technology producers.

12.38 The technology development globally and availability is currently sufficient to be adopted and adapted. Further modifications will take place on the ground.

12.39 Brazil's process technology may not be suitable for India's profile.

12.40 Vietnam has adopted rapidly available technology and converted it locally to suit their investment and management availabilities.

12.41 Vietnam has offered equipment for sale to India and imports have come in.

12.42 Even Srilanka has developed a viable shelling machine and this has been replicated in Vietnam.

12.43 A cashew process revolution is therefore taking place and there is going to be a sea change on how cashew will be handled in the next two years.

12.44 Enormous changes keep happening in the field, as well as in industrial processes worldwide. These have to be tracked and made beneficial to Indian industry.

THE VISION FOR INDIAN TECHNOLOGY.

12.45 CEPCI must promote a Centre for Applied Research and Technology along with industry.

12.46 This must be located right next to an existing factory. The factory itself needs to be a laboratory. Otherwise it would be very expensive to handle product and transfer technology without thorough testing.

12.47 Indian technology should be promoted wherever applicable.

12.48 It would be ideal if licensed production of equipment begins in India. This would mean comfort for warranty and servicing.

12.49 Collective efforts to assess technology are useful CEPCI can offer conclaves and meetings to meet technology offers and take specialist advice from Indian institutions.

TECHNOLOGY UPGRADATION SHOULD RESULT IN TOTAL FACTOR PRODUCTIVITY.

12.50 Cashew production and consumption is a perpetual activity. Cashew consumption can increase enormously with benefits to most of the population.

12.51 Technology upgradation would result in total factor productivity. This implies cost per unit of production to convert cashew kernels could come down.

12.52 Technology upgradation can increase farm productivity dramatically.

12.53 Current investment in technology upgradation will provide rich returns in the medium term itself while laying the ground for long term benefits.

12.54 Tech upgradation should result in total factor productivity.

EXECUTIVE SUMMARY

- Cashew industry has a reputation of being a traditional and labour oriented industry.

- It is necessary for the industry to have technological upgradation and modernization.

- Labour costs are bound to go up and real cost of automation is coming down. Reduction in labour force meant for cashew is evident and growing.

- One cannot do away with employees. The peculiarities of cashew involve a major involvement of the human faculty.

- One has to introduce the concept of creative automation.

- Innovation and adaptation are not new to industry.

- The world situation in technology and process.

- The vision for Indian technology.

- Technology upgradation should result in total factor productivity.

- The quality and acceptability of product will need to grow dramatically and will have backward and forward benefits.

CHAPTER - 13

PACKAGING & PRESENTATION

PACKAGING VERY CRUCIAL FOR CASHEW AS, IT HAS INHERENT CHARACTERISTICS WITH NO TOLERANCE FOR DEFECTS

13.1 Cashews cannot be sold in bulk without keeping it away from atmosphere. It requires modified atmosphere: a vacuum or gas infusion which makes the cashews reside in an inert atmosphere.

13.2 Cashews also keep well in temperate climate and when kept in an airtight bottle. In tropical and humid atmosphere cashews tend to develop non-conformities.

13.3 Cashews are hygroscopic. They absorb moisture easily. Cashews are also prone to absorb odors from surroundings.

13.4 Cashews require metal packing compatible for foods or multilayer packs which are capable of keeping out moisture and oxygen.

13.5 The history of cashew manufacture started with cashews arriving infested to New York in its first commercial consignment. Undeterred, the pioneers went on to innovate and introduce the first innovation made from available materials in the form of tin packaging and the vita pack system.

13.6 The vita pack system ensured cashews were packed in an inert atmosphere and infusion of CO_2 acted as a fumigant as well as prevented development of infestation.

13.7 Packaging is crucial for cashews and it must address the packaging it deserves.

13.8 The value of packaging is very small in terms of value of the product.

13.9 Destruction in value would be significant and therefore packaging should not be compromised for cost reduction.

13.10 The standard of the product gets protected only when correct packaging is defined.

13.11 The standard packaging is done in such a way that there should not be a compromise

EVOLUTION OF PACKAGING IN INDIA AND WORLD TOWARDS MEETING BULK USER REQUIREMENTS

13.12 India has the pioneer status in the industry and evolved the packaging norms from 1930's till 1960's.

13.13 The tin packing was most suitable for the nature of cashews and the importing industry was accustomed to this.

13.14 In the 1980's the importing industry requested for a change as opening of tins were involving expensive handling, contamination due to solder pieces and disposal problems.

13.15 CEPCI acted on this and commissioned a report on change in packaging. The task was entrusted to the Indian Institute of Packaging, Mumbai.

13.16 The report studied the nature of cashews and gave alternatives to the tin.

13.17 The evolution to plastic was born and industry experimented for three years. Europe and S Africa had developed the machines for the perfect packaging in plastic bags.

13.18 The change in the industry was done over a period of one and half years. There have been cost savings.

13.19 Some of the problems continued: blocking, infestation and presentation. These have been resolved over a period of time by adaptation of technology.

13.20 Over 90% of the exports now take place in plastic bags.

13.21 It is worthwhile for CEPCI to commission a study on packaging: origins, history, current status and a design for the future

PROBLEMS PERSIST WITH PACKAGING FROM ORIGIN TO DESTINATION

13.22 There are recurring and persistent problems arising out of packaging which will make a good standard.

13.23 It is necessary as per standards and for future marketing, that the product is not damaged in transit.

13.24 CEPCI must commission a survey amongst shippers and buyers and collect data and information on problems in packaging.

13.25 This must be collated and submitted through an expert panel in the industry for ongoing study and research on packaging.

13.26 Packaging specifications along with the right packaging machinery must be listed for making it available to industry and packaging material and machinery manufacturers.

CASHEW INDUSTRY YET TO ADOPT CUTTING EDGE TECHNOLOGY CONSIDERING VALUE OF PRODUCT

13.27 Cashew is a high value and sensitive product. The provision of a problem free packing should envelop the entire industry. A commitment of no compromise is essential as against a "just enough" acceptance. Buyer's views must be taken into account on the quality of packaging that makes the product fit for use till the end user.

13.28 There are several options available to improve the quality of current packaging and packaging machinery.

13.29 The CEPCI panel can do an internal and external survey on what would be the comparable technologies available.

13.30 A delegation to a Packaging exhibition in Europe / USA / S Africa or Singapore would help to improve understanding on current trends in packaging.

13.31 The experience should be shared by the current suppliers to the industry so that the study can be made jointly and efforts of industry are supplemented by the packaging machinery and material suppliers.

TRENDS IN PACKAGING

13.32 There are several trends in packaging globally. The plastic/carton situation is likely to continue but there is scope in material science to improve.

13.33 There is also a potential to go "green" and ecological so that industry sensitiveness to nature is adopted.

13.34 Buyers' needs to be informed on this developments and views sought. Though cashew is not comparable to other tree nuts, scope exists to refine the search for cost effective as well as suitable application.

REQUIREMENTS OF THE PRODUCT

13.35 The cashew kernel supplied ranges from moisture levels just right to product. The ideal moisture level is deemed to be 3.25% to 3.75% though the specification allows for 5. Anything less than 3 makes the product brittle.

13.36 The import trade does not accept higher percentage of broken in wholes.

13.37 Integrity of the product requires integrity of the packaging.

13.38 The characteristic shape and the composition of cashew also are to be studied vis-à-vis packaging.

13.39 The product should be studied in full before packaging initiatives.

13.40 A multi-disciplinary approach is required for cashews.

13.41 CEPCI must evolve a thoroughly studied and prepared technical document through the QUL on packaging materials specifications, packaging standards, process standards and manuals, precautions, do's and don'ts and parameters upto ISO standards.

PACKAGING EVOLUTION WILL HELP REDUCE COSTS AND IMPROVE VALUE IN THE LONG RUN

13.42 The packaging evolution will have to continue till perpetuity.

13.43 Changes in the economic environment and facilities, e.g. containerization have made the approach less rigorous.

13.44 Global standards, especially in regulation and food safety as well as issues on recycling and disposal keep surfacing all the time.

13.45 There is a potential of providing jumbo bags which can mean an innovation and reduce costs in the long run. Jumbo bags hold about 800 kgs of material and 20 boxes to a container.

13.46 The pro rata cost could be reduced in this method and at the same time, contain the breakage as well as keep the product intact.

13.47 The nature of modified atmosphere inside also needs to be understood. Infusion of gases like CO_2 and N_2 need to be mixed or calibrated.

13.48 Use of Oxygen absorbers and silica gel are options. There are also options of temperature modifications if the customers pay for it to contain risks of infestation.

13.49 Pre-treatment of cashews needs to be standardized to prevent risks of microbiological contamination and also eliminate risks of infestation.

PACKAGING AND PRESENTATION IN RETAIL TO MEET THE NEEDS AND ATTRACT THE CONSUNMERS.

13.50 Supermarkets and brand owners across the world have evolved packaging suitable for the customer.

13.51 Packaging also addresses concerns relating to safety for customers.

13.52 Nutrition labeling and customer information also form important communication issues.

13.53 Developments in packaging for consumers need to be monitored.

13.54 CEPCI should have an ongoing project for assessing consumer packs at all destination to develop the knowledge on packaging.

13.55 Packaging knowledge is crucial for developing value added packs in India eventually.

13.56 Cashews cannot be isolated or complacent from the idea of marketing. Modest packaging which is informative is essential for reasonably priced cashews.

13.57 Differentiation and specialty market need to go up the attraction levels to cater to discerning customers or those who indulge in consumption with attractive packaging.

STUDIES NEEDED ACROSS THE GLOBE ON PACKAGING AND PRESENTATION

13.58 Backward and forward integration of information and knowledge on cashew is essential.

13.59 CEPCI must participate and conduct studies across the globe on packaging and presentation.

13.60 This can be alone or in association with other producing countries.

13.61 The knowledge of how cashews are presented in the end of the value chain is crucial for all parts of the value chain.

ACTION PLAN ON PACKAGING SHOULD INVOLVE ALL STAKEHOLDERS

13.62 Any action plan involving packaging should involve all stakeholders.

13.63 CEPCI should make it a practice to have a packaging and presentation conclave every two years to keep the packaging manufacturers and cashew manufacturers abreast of developments.

13.64 There should be a technical bulletin every month from CEPCI or a competent agency on its behalf to all participants that keep stakeholders abreast of current developments.

EXECUTIVE SUMMARY

- Packaging is very crucial for cashew as it has inherent characteristics with no tolerance for defects.

- Evolution of packaging in India and world towards meeting bulk user requirements.

- Problems persist with packaging from origin to destination.

- Cashew Industry yet to adopt cutting edge technology considering value of product.

- Trends in Packaging.

- Requirements of the product.

- Packaging evolution will help reduce costs and improve value in the long run.

- Packaging and presentation in retail to meet the needs and to attract consumer.

- Studies needed across the globe on packaging and presentation.

- Action plan on packaging should involve all stakeholders.

CHAPTER - 14

QUALITY CERTIFICATION & RATING

ANY MARKETING STRATEGY ON A GLOBAL BASIS REQUIRES A CONTINUOUS ASSURANCE OF QUALITY

14.1 Marketing cannot be done without quality. In a fragmented industry, the quality control system is within firms. Quality is dealt with bilaterally.

14.2 Organization and marketing go together. What is currently done by Indian industry is selling. Marketing is said to be accomplished when selling becomes redundant. The product will be distributed

14.3 Assurance of quality is an essential in mass marketing. Success of marketing in commodities, e.g. Parachute in coconut oil, Red Label in Tea, Kohinoor in Basmati, Tata in Salt should be taken as case studies for cashews.

14.4 Quality assurance is something that should be part of the cashew processing, packing and delivery system.

14.5 Quality assurance should be at a high level in the product and augmented by the QMS ensuring that the buyer's needs are meant.

14.6 Quality assurance cannot be just one time. It also cannot mean different in different batches. Quality assurance will mean consistency.

14.7 Quality needs to remain through the buyers and the distribution system till the final consumer.

14.8 Cashew being a tropical horticultural produce has its own characteristics. It is susceptible to influence of external factors and is likely to change characteristics in storage or transit.

14.9 Natural experience and very minimal studies have conveyed that cashews are to be managed very well during production that it is fit for use till it reaches the trader.

14.10 The modern approach requires that assurance be available up to the consumer.

14.11 The value chain may modify cashews till it reaches the customers. The key issue is to ensure consistency and safety at all times till it reaches the consumers.

14.12 Cashew quality should not confine itself for making do with specifications by buyers or by authority. It must be enhanced and augmented for making sure the attraction remains.

14.13 Consistency is a very important element that is required.

14.14 Definitions of quality from quality gurus need to be adapted.

QUALITY CERTIFICATION AND RATING HELP TO MAKE SUPPLIERS DISTINGUISHED AND PROVIDE SAFE PRODUCT TO A CONSUMER FIT FOR USE.

14.15 Quality certifications for units are required for three elements. Certification or self-certification that manufacturing facilities are up to the prescribed standards, certification of the produce when delivered and certification for quality management system and food safety management system.

14.16 A Rating system which gives degrees of competence, measurement of performance and a certain amount of passive guarantee to customers will help improve the trade. This aspect can also give compensation to the producer aspiring for a better price for better quality and value to customer.

THIRD PARTY INSPECTION AND TEST PROCEDURES NEED TO BE REVALIDATED AND ASSURANCE TO BUYERS MUST BE ABSOLUTE.

14.17 The international trade is relying on self-certification by sellers. Third party inspection by established agencies that have the expertise to provide consignment-wise inspection is resorted to and is part of the documentation.

14.18 There is a need to re-look at third party inspection and test procedures. CEPCI must have a regulated standard format for this which will apply to the industry. There is need for absolute assurance to buyers on the quality of the merchandise.

THERE IS NO CURRENT STANDARD ON A VOLUNTARY BASIS FOR IN PROCESS QUALITY AND CERTIFICATION OF THE UNITS ITSELF AS FIT FOR EXPORT PRODUCTION

14.19 The In Process Quality Control system was introduced by the EIA through Government notification. Currently, though it is a valid system, the element of compulsion has been eliminated by trade policy.

14.20 The IPQC system was circulated for remarks on whether it would be currently valid or applicable. The format is available in **Appendix 9**

14.21 The reason for bringing this element in is that IPQC is the starting point for all current and future manufacturing units to bring processing to a standard. This has been made especially with cashew in mind. It has not lost relevance, but needs to be re-done in the light of changes in the industry since 20 years.

14.22 It is required by CEPCI also to take forward the agenda on quality to the next generation factory and keep updating the standards of processing required by industry.

CEPCI HAS STATED THAT POSSIBLE RATING OF PRODUCERS CAN BE ATTEMPTED.

14.23 CEPCI has resolved in the committee that a rating of producers can be attempted. This has not proceeded as there was insufficient data and resource allocation on having a format for rating, the rating criteria and the evaluation process.

14.24 The CEPCI can proceed on this decision with two processes:

a) *Having a deeper study of commodity rating processes*
b) Taking a cue from the financial rating services and attempt if possible.

14.25 It is beyond the scope and resource of the Vision document to determine the criteria or suggest the evaluation process. This needs to be done by CEPCI when it can allocate the resources after a consultation process.

14.26 This document states the possible rating combinations. The rating combinations are recommended in **Appendix 10**.

14.27 The rating criteria must be established by an expert group in CEPCI.

US FDA GMP IS A GOOD REFERENCE. THERE ARE A LOT OF CHANGES EVOLVED IN GMP AND CERTIFICATION SYSTEMS

14.28 Good manufacturing practices are an imperative in cashew manufacture in the years to come. The US GMP is a good reference document to use as an internal document by all systems oriented cashew manufacturers.

14.29 As the US document is also supplemented by other ISO and National regulations, a comprehensive document on Good Manufacturing Practices needs to be commissioned by CEPCI.

HACCP AND ISO 22000 HAVE EVOLVED RECENTLY. CEPCI MUST ASSIST UNITS IN TRANSITION, EVOLUTION AND ADOPTION OF FSMS.

QUALITY OF PRODUCE AND QUALITY MANAGEMENT SYSTEM DISTINGUISHED NEED FOR AN INDUSTRY QUALITY MANUAL.

14.30 There is need for distinction between produce quality and a quality management system. A quality management system makes the manufacturer customer centric.

14.31 Produce quality needs to be done for customer satisfaction as well as to satisfy regulatory and statutory requirements that govern the produce in public interest.

14.32 QMS also is required to ensure that employees are committed to quality. It clearly defines the policy, procedures, tasks and responsibility.

14.33 There is need for an industrial quality manual which is standardized to the requirements of manufacturers. It is worthwhile to have an investment in doing this collectively by the CEPCI.

14.34 The Manual can spell out the current global standards in produce and global quality references and how to go about implementing produce and quality standards.

INTERNATIONAL EXPOSURE TO QUALITY OF CASHEWS WILL BE HIGHER AND PREPAREDNESS ESSENTIAL.

14.35 It is essential that Indian industry has thorough exposure to international cashew quality & standards. This will be a benchmark to competition. India has always responded to buyer's requirements.

14.36 It is essential to institutionalize the processes and be prepared for the future.

14.37 This requires special focus when international organizations, trade associations and Governments propose or impose regulations on the importing industry or has issues which will surface in the future due to consumer concerns. Eg. Supermarkets are requiring suppliers to ensure that manufacturers have a glass policy.

EXECUTIVE SUMMARY

- Any marketing strategy on a global basis requires a continuous assurance of quality

- Quality certification and rating help to make suppliers distinguished and provide safe product to a consumer fit for use.

- Third party inspection and test procedures need to be revalidated and assurance to buyers must be absolute.

- There is no current standard on a voluntary basis for in process quality and certification of the units itself as fit for export production

- CEPC has stated that possible rating of producers can be attempted.

- US FDA GMP is a good reference. There are a lot of changes evolved in GMP and certification systems

- HACCP and ISO 22000 have evolved recently. CEPCI must assist units in transition, evolution and adoption of FSMS.

- Quality of produce and quality management system distinguished need for an Industry Quality Manual.

- International exposure to quality of cashews will be higher and preparedness essential.

CHAPTER - 15

GOOD MANUFACTURING PRACTICES & WORLD STANDARDS

GOOD MANUFACTURING PRACTICES EMERGE FROM DOCUMENTS CREATED BY PROMINENT AGENCIES IN OECD COUNTRIES LIKE THE FDA IN UNITED STATES.

15.1 Good manufacturing practices (GMP) are emerging out of the need for high standards in quality of manufactured food. These are basically formulated to ensure that there is assurance of food safety to the increasing number of citizens who rely on processed and packaged food for their convenience.

15.2 Good manufacturing practices are arrived out of thousands of man years of experience, study, application and the rigorous process of making of ideal and a law. These are meant for compliance and generally guidance.

15.3 Food industries are allowed the freedom to manufacture. However, they are bound by an obligation that they do not consciously or inadvertently have a cause for potential harm to any individual customer.

15.4 These are meant for compliance. Where they are bound by law enforced by an authority, local or State Government, the guidance is used for both self-regulation as well as inspection.

15.5 International Standards Organizations have incorporated GMP in specific standards and become a universal reference.

15.6 CEPCI along with industries should take the US FDA GMP as a standard reference and manufacturers of cashews should try to adapt these standards when building plants and during various aspects of manufacture.

LOCAL AND STATE BODIES PRESCRIBE STANDARDS FOR FOOD PROCESSING AND HANDLING.

15.7 There are instances where local Governments as well as State governments who enforce rigorous laws over and above national or international laws. Instances can be taken from the Bavarian Government and the Dubai Municipality.

15.8 The food manufacturing units in these areas have exemplary high standards and have won public trust as well.

15.9 CEPCI must compile food regulations of various regions for academic as well as practical applications to understand the rigours which buyers go through.

15.10 CEPCI must submit to Government the costs of food regulation in various importing countries and ask for substantial assistance for upgradation.

15.11 GMP is also incorporated as food standards in India and is governed by the Prevention of Food Adulteration Act.

15.12 In India, GMP standards are incorporated in the provision of the Prevention of Food Adulteration Act.

15.13 Most of the provisions of the Factories Act and other enactments also provide for a basis for industry to rely on.

15.14 CEPCI must benchmark the various provisions of various enactments to reach an understanding on how difficult it is to adopt food standards. Food standards should be adapted in such a way, that it costs least for assurance of quality at the time of packaging.

VOLUNTARY ADOPTIONS OF STANDARDS IN ADDITION TO REGULATION ARE COVERED BY INTERNATIONALLY RECOGNIZED HACCP AND ISO 22000 STANDARDS.

15.15 Units are required by buyers to provide assurance. Third party assurance can be possible for units by adoption of internationally recognized HACCP and ISO 22000 standards.

15.16 Many units have gone for certification in those standards and are able to comply.

15.17 CEPCI must make a unilateral effort to have all units go for quality certification. Central and State Governments provide for many programs as well as grants and assistance in the securing of this certification.

15.18 Grants and assistance are also required for sustaining the certification. This needs to be emphasized when the Central Government holds review of the impact of the schemes of Government of India.

15.19 There needs to be a need to understand the effects of quality systems and quality of produce.

15.20 ISO 9001: 2008 needs to be practiced initially in units before adopting voluntary adoption of standards.

15.21 This must be rewarded by recognition as well as financial assistance.

THE CASHEW INDUSTRY NEEDS TO BE ENCOURAGED TO ADOPT THESE STANDARDS AS THEY HAVE SHORT TERM, MEDIUM TERM AND LONG TERM ADVANTAGES.

15.22 Cashew industry needs to be encouraged to adopt these standards. This will also mean importers and importer agencies and institutions have to be involved in the process.

15.23 The short term advantages are elimination of quality complaints and narrowing down the difference between what manufacturers give and what their user industry buyers expect them to provide.

15.24 In the medium term the need for compulsory inspection makes way for voluntary compliance and self certification

15.25 In the long run India will continue to be reliable quality suppliers when all operators will be certified both by CEPCI and by Government of India.

15.26 A consistent approach to good quality across the industry greatly improves the likeability and salability of the produce universally and will improve realization.

15.27 Short term approaches to undermine quality need to be addressed.

15.28 Standards need to be revisited in the light of changes required by customers.

CASHEW INDUSTRY NEEDS TO BE GIVEN MULTIPLE DOSES OF AID TO CONFORM TO THESE STANDARDS AS THEY HAVE FAR REACHING IMPLICATIONS IN BACKWARD AND FORWARD INTEGRATION.

15.29 Cashew industry which is accustomed to trading preferences needs to go into systematic manufacturing practices. This will integrate manufacture and marketing.

15.30 This needs aid as each additional practice entails costs which will initially not be paid by customers till full recognition is obtained.

15.31 It takes a reasonably long time for transmission from forward and backward parts of the value chain.

15.32 The producer recognizes quality issues only when there is a communication that better quality will be rewarded by better ex-farm incomes.

15.33 This requires education and training at farm level as well as exposure of both manufacturer and producer to each other. The trader as well as state agencies should act as the medium.

WORLD STANDARDS ARE USUALLY HARMONIZED IN INDIA BY THE INDIAN STANDARDS ORGANIZATION. IT IS IMPORTANT THAT WORLD STANDARDS BE DIGESTED AND MADE APPLICABLE TO INDIA UNDER INDIAN CONDITIONS.

15.34 World standards are usually adopted by the Indian standards Organization and equivalence in standards is recognized.

15.35 The world and Indian standards should be digested and made applicable to India under Indian conditions. This does not imply dilution of standards or enhancement.

15.36 This means generalized clauses must be adapted to Indian conditions. The product quality and safety of the product can be ensured to customer satisfaction as much as quality costs are compensated fairly in the value of the product.

15.37 Each aspect of the product standard needs to be adopted.

THERE IS NEED FOR TRANSLATION OF THESE STANDARDS AS WELL AS POLICY, STANDARD OPERATING PROCEDURES AND WORK INSTRUCTIONS IN INDIAN LANGUAGES AND LOCAL LANGUAGES AS EMPLOYEES NEED TO BE COMMITTED AND INVOLVED IN QUALITY PROCESSES.

15.38 These standards must be translated into SOPs and WIs. The tasks and responsibility needs to be in Indian and local languages.

15.39 If employees are to be committed and involved in quality processes, then tasks and responsibilities vis-à-vis quality requirements need to be thoroughly explained.

15.40 CEPCI launched a campaign three decades ago which was adopted by all exporters for communicating requirements of quality through posters and handbooks. This laudable work must be continued more vigorously.

15.41 Model SOPs and WIs can be produced by CEPCI for the industry.

THE STANDARDS REQUIRE EXPLANATION, EXPANSION AND INTERPRETATION AND CONSULTANCY IS NEEDED BY INDUSTRY WHEN IT ADAPTS THESE STANDARDS. THIS MUST BE SUBSIDIZED BY THE STATE/CENTRAL GOVERNMENTS.

15.42 There must be a constant series of explanations of the terms of product quality and systems. The adaptation of the standards to the factory and to the product will then be smoother and easier to monitor.

15.44 Such an outlay will require considerable support in the form of technical assistance as well as financial support.

15.45 This is because any sudden increase in outlay will not be supported by buyers easily in terms of price increases.

INDUSTRY LEADERS MUST GET INVOLVED IN THE MAKING AND DEVELOPING OF STANDARDS AND THERE MUST BE INDUSTRY SUPPORT IN THIS INVOLVEMENT.

15.46 Industry leaders must get involved in the making and developing of standards.

15.47 This requires secretarial and administrative support and hence CEPCI must actively involve in this collective effort.

15.48 Standards adoption will require industry leaders to be renown in their expertise on systems and product apart from the leadership quality in the business itself.

15.49 Such involvement must also be supported by Government which adopts standards through its own agencies nominated for such purpose.

15.50 Efforts must be made to resort to independent testing and development to agencies to validate the requirements and needs for in-process, products and packaging.

EXECUTIVE SUMMARY

- Good manufacturing practices emerge from documents created by prominent agencies in OECD countries like the FDA in US.

- Local and State bodies which prescribes standard for food processing and handling.

- GMP is also incorporated as food standards in India and is governed by the Prevention of Food Adulteration Ac.

- Voluntary adoptions of standards in addition to regulation are covered by internationally recognized HACCP and ISO 22000 standards.

- The cashew industry needs to be encouraged to adopt these standards as they have short term, medium term and long term advantages.

- Cashew Industry needs to be given multiple doses of aid to conform to these standards as they have far reaching implications in backward and forward integration.

- World standards are usually harmonized in India by the Indian Standards Organization. It is important that world standards be digested and made applicable to India under Indian conditions.

- There is need for translation of these standards as well as policy, Standard Operating Procedures and Work Instructions in Indian languages and local languages as employees need to be committed and involved in Quality processes.

- The standards require explanation, expansion and interpretation and consultancy is needed by industry when it adapts these standards. This must be subsidized by the State/Central Governments.

- Industry leaders must get involved in the making and developing of standards and there must be industry support in this involvement.

CHAPTER - 16

MARKETING - NEW MARKETS

NEW MARKETS IDENTIFIED IN TERMS OF COUNTRIES ON GNP/GDP PARAMETERS.

16.1 It is always essential for an industry to create and expand new markets. Markets are to be created by industry groups. Individual exporters essentially would be engaged with traders/importers to enlarge the customer base. From the perspective of a business, markets need to be created collectively.

16.2 New markets can be identified based on demographics, i.e. the people most likely to buy cashews in nations where cashews are not presently marketed. They can also be identified on the basis of incomes.

16.3 **Table 11** - identifies new markets on the basis of their GNP/GDP parameters. This is done with minimal research. The CEPCI should commission a deeper study on new market potential based on these pointers.

SCOPE FOR NEW COUNTRIES - GOOD ON THE BASIS OF PREVIOUS EXPERIENCE

16.4 New markets can be developed as having potential on the basis of previous experience - **Table 12**. For instance, CEPCI first went to S. Korea in a delegation in 1988. The imports were around 50 mt at that time. Currently, exports to S Korea are around 600 mt per year.

16.5 Considering the experience of other nations in S East Asia or the Japanese example, South Korea can easily expand to 2000 mt with better marketing.

16.6 A similar exercise can be done in the case of the following countries picked up from the list. List of countries to be targeted is shown in **Table 13.**

16.7 It is not to be assumed that East Eurpoean countries are not consuming cashews. They could be serviced by European or UK based traders. One has to explore those markets along with those traders as allies or take the initiative for direct marketing.

16.8 These could be individual issues taken up in due course. It is essential to focus on new markets. The scope for new markets can be in the region of 20,000 to 30,000 mts per annum in five years and is essential to support the vision document's target for exports as well as an assured marketing strategy for growth in domestic production.

INDIA EXPERIENCED HIGH GROWTH RATES IN NEW MARKETS.

16.9 It is a fact that India experienced high growth rates in the past five years. This is evidenced in **Table 14.**

16.10 This phenomenon helped the expansion of world markets. As Vietnam took the lead in establishing a base in the mass markets of USA and Europe, India found the opportunity to sell to new markets.

16.11 This proves that cashew is expandable in marketing. Its availability and regular supply that generates an additional demand.

16.12 It also helps price stability as new markets will establish a price trend. Pressure to sell to traditional markets at lower prices will get reduced.

16.13 This can be a very good template for contemplating expansion to other new markets.

16.14 Growth in new markets attained in last five years can also sustain at higher growth rates than in developed markets.

16.15 India could sustain its exports in the face of competition from Vietnam due to discovery of new markets.

MARKETING STRATEGY FOR A GENERIC PRODUCT BY CEPCI.

16.16 The CEPCI is the only agency in a developing nation which has been conducting generic marketing.

16.17 All practices done by the CEPCI need to be coded and recorded for an evaluation of past action.

16.18 There are a lot of options for generic product marketing.

16.19 The CEPCI itself has background material on various interactions it has made in the past, primarily with the AFI

16.20 Other initiatives in Japan, UK and Europe are possible

16.21 The CEPCI needs to evolve a marketing strategy for cashew. However, a policy issue needs to be addressed.

16.22 Discussions within CEPCI have always centered on the efficacy of generic marketing. CEPCI is reluctant to commit itself for generic marketing in the global area on its own. Obviously, Brazil and Vietnam would gain from such an exercise without incurring a cost.

16.23 If at all CEPCI directs a program, it must be at markets where the Indian cashew requirement is stronger and that is affirmed by participants in the value chain in that market area.

16.24 Generic marketing is worth the exercise even if it expands the market in the short run. The advantages far outweigh the costs.

16.25 The CEPCI needs to organize a workshop on Generic Marketing of Cashew with specific reference to the stakeholders in India.

HOW INDIVIDUAL UNITS SHOULD TAP NEW MARKETS NEED TO BE DECIDED IN DISCUSSION PROGRAMS.

16.26 The CEPCI is not an exporter. The follow-through from generic marketing requires individual units to co-operate and enjoy the expansion in markets.

16.27 Discussion programs, meets, conclaves, conferences and fairs specific to food are ideal locations for having these conclaves to melt the differences and create customers and markets.

16.28 New markets need patience and understanding in contrast to quick deals and positions of developed markets. Patience and understanding reward the industry as a whole.

16.29 New markets are easy to approach when they are giving a price premium as newcomers. However, industry needs to have a reasonable approach to new markets. Service is more important than price where the natural price is demanded.

16.30 There are concerns and difficulties to be faced in markets. Therefore, co-operative and consultative approach along with conventional and unconventional risk management can be followed for new markets in concert with Government and private agencies who encourage promoting in new markets.

WHAT CEPCI CAN DO AND SUPPORTED BY INDUSTRY AND MINISTRY

16.31 CEPCI needs to conduct catalytically activity in generic marketing. It markets the qualities and usability of cashews, irrespective of who supplies them.

16.32 Generic marketing is normally to be undertaken by the producer. In India, producer interests are taken care of by Government. Therefore, seeking Government incentives or promotion budgets should always be in the interest of the producer.

16.33 Industry is always expected to take care of itself. It is cashew, the produce that requires to be marketed. Since, it benefits a large section of the population; Government could provide the necessary support for generic marketing.

16.34 The CEPCI can conduct generic marketing globally in association with other international agencies like the International Nut Council (INC) or specifically in some markets like USA in association with the AFI.

16.35 Industry and units must support CEPCI initiatives whole-heartedly. Industry must therefore direct the CEPCI agenda to converge interests of the industry with the marketing of the produce.

NEW MARKET GROWTH WILL BE CONDUCIVE FOR PROMOTING THE CROP.

16.36 New market growth should be simultaneous to promoting the crop. In fact, marketing should precede the growth initiative for the crop as growers will benefit immense with ready markets.

16.37 "Supply creates its own demand" is an economic law. If markets are expanded more rapidly than the crop, the existing farmers get the benefits of realization which make the incentive for new farms more lucrative.

16.38 Generic marketing has lead times. It is not objective and measurable as private marketing in the case of brand or firm. Hence generic marketing is to be launched aggressively as the crop is being promoted. The growth will grow hand in hand. Private marketing will get intensified with generic marketing.

16.39 Almonds are a very good example of generic marketing. Almond growers have the highest net income per acre in the whole agricultural economy of USA.

16.40 The strategy and tactic adopted by almond marketing need not be the same for cashew. Cashew needs to have a generic marketing of its own. It should be noted that almond generic marketing had the backing of the US Federal Government.

NEW MARKET STRATEGY: VISIT AND INVITATION.

16.41 The new market strategy can be visited by invitation. The visit can be by a group of interested exporters to explore in a delegation, say to Austria. Following the visit, an invitation can be extended to group potential Austrian importers to India. This can be supported 100% by an MDA grant and the group can also be extended to other interesting produce in agricultural produce like spices for experience and sharing back in the Austrian market.

16.42 This will also boost tourism and make the contact more effective as invited visitors will be more informed and educated on India and the Indian industry.

16.43 This can be done by turns for different countries over 20 years as a specific program of interaction between two business communities.

16.44 It can be a regular program like the Rotary Group Study Exchange. The program can be called as the CEPCI Group Marketing Exchange program.

CODIFY INFORMATION TO BE PROVIDED FOR NEW MARKETS AND EVOLVE PRICING STRATEGY.

16.45 The CEPCI must codify information to be provided for new markets. This includes product information, commercial information, manuals on standard commercial practices and standard information on banking shipping and the like, an understanding of the specific market's import requirements in commercial and food safety requirements and the like.

16.46 This will focus attention of the exporters on new markets who will be encouraged to nurture them.

16.47 Exporter's especially new exporters can be encouraged for new markets. CEPCI can have brainstorming sessions on new markets.

16.48 A workshop on pricing strategies and comparative pricing on account of variations or special characteristics of new markets can also be conducted. This will make evolution of an individual pricing policy possible in the commodity market.

BUILD A DATABASE FOR NEW MARKETS AS WELL AS POTENTIAL BUYERS IN ALL MARKETS.

16.49 The CEPCI needs to build a database for new markets as well as potential buyers in all markets.

16.50 This requires the Committee to consider and approve the Council's actions.

16.51 As the database will be available to all exporters, new exporters will get access on membership. This is part of generic marketing and diversifying the markets.

16.52 This will serve the purpose to moderate the rivalry behaviour and substituted with accommodation as there is room for all in cashew for some time to come.

EXECUTIVE SUMMARY

- New markets identified in terms of countries on GNP/GDP parameters.
- Scope for new countries good on the basis of previous experience.
- India experienced high growth rates in new markets.
- Marketing strategy for a generic product by CEPCI.
- How individual units should tap new markets need to be decided in discussion programs.
- What CEPCI can do and supported by industry and ministry.
- New Market growth will be conducive for promoting the crop.
- New Market Strategy: Visit and Invitation.
- Codify Information to be provided for new markets and evolve pricing strategy.
- Build a database for new markets as well as potential buyers in all markets.

Table : 11

LIST OF NEW MARKETS (COUNTRIES)		
SL NO.	**COUNTRIES**	**REMARKS**
1	Bahamas	
2	Bangladesh	
3	Barbados	
4	Bhutan	
5	Bolivia	
6	Bosnia and Herzegovina	
7	Brunie	
8	Cameroon	
9	Cape Verde	
10	Chile	
11	Cuba	
12	Denmark	
13	Fiji	
14	Iceland	
15	Iraq	
16	Jamaica	
17	Kyrgyzstan	
18	Liechtenstein	
19	Luxembourg	

LIST OF NEW MARKETS (COUNTRIES)		
SL NO.	**COUNTRIES**	**REMARKS**
20	Mexico	
21	Monaco	
22	Namibia	
23	Nepal	
24	Paraguay	
25	Peru	
26	Philippines	
27	Saint Kitts and Nevis	
28	Saint Lucia	
29	Saint Vincent and the Grenadines	
30	San Marino	
31	Seychelles	
32	Slovakia	
33	Suriname	
34	Tajikistan	
35	Turkmenistan	
36	Uruguay	
37	Uzbekistan	
38	Venezuela	
39	Yemen	
40	Yugoslavia	

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Table : 12

SL NO	COUNTRIES	POTENTIONAL EXPORT OF CASHEWS FOR FORTH COMING YEARS (Quantity in M.T.)									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	South Africa	537	806	1209	1814	2721	4082	6123	9185	13778	20667
2	Russia (leading)	1140	1710	2565	3848	5772	8658	12987	19481	29222	43833
3	South Korea	792	1188	1782	2673	4010	6015	9023	13535	20303	30455

Table : 13

LIST OF CORE MARKETS IN OECD COUNTRIES						
SL NO.	COUNTRIES	2005	2006	2007	2008	PERCENTAGE OF GROWTH
1	Australia	1065	1239	2554	2455	130.52
2	France	3440	3507	4146	4169	21.19
3	Japan	4840	3787	5010	5099	5.35
4	Spain	2637	2699	2696	2422	-8.15
5	Belgium	2584	2159	2624	2313	-10.49
6	USA	48956	44793	43334	38693	-20.96
7	Netherland	18251	20459	15175	13393	-26.62
8	Germany	2026	1876	1785	1309	-35.39
9	Canada	1589	1295	626	909	-42.79
10	U.K.	6510	5200	3738	3386	-47.99
11	Russia	2081	1292	1150	48	-97.69

Notes:

We have succeeded in having high Growth Rate in Australia
We have made a moderate growth in France
We have made a small growth in Japan
We have negative growth in other countries

Table : 14

EXPORT OF CASHEW KERNELS FROM INDIA

(QTY IN MT)

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
1	Afghanistan				0	0
2	Albania				0	0
3	Algeria	32	81	111	269	484
4	Andorra				0	0
5	Angola				0	0
6	Antigua and Barbuda				0	0
7	Argentina				0	0
8	Armenia				0	0
9	Australia	1065	1239	2554	2454	1108
10	Austria	7	27	31	45	60
11	Azerbaijan				0	0
12	Bahamas				0	0
13	Bahrain	396	432	434	557	357
14	Bangladesh				0	6
15	Barbados				0	0
16	Belarus				0	0
17	Belgium	2584	2159	2624	2313	1757
18	Belize				0	0
19	Benin				0	0
20	Bhutan				0	0
21	Bolivia				0	0
22	Bosnia and Herzegovina				0	0
23	Botswana				0	0
24	Brazil				0	0
25	Brunie				78	112
26	Bulgaria	271	262	175	319	63
27	Burkina Faso				0	0
28	Burundi				0	0
29	Cambodia				0	0

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
30	Cameroon				0	0
31	Canada	1589	1295	626	909	345
32	Cape Verde				0	0
33	Central African Republic				0	0
34	Chad				0	0
35	Chile				0	0
36	China			34	65	17
37	Colombia				0	0
38	Comoros				0	0
39	Congo (Brazzaville)				0	0
40	Congo (Kinshasa)				0	0
41	Costa Rica		67		32	0
42	Côte d'Ivoire				0	0
43	Croatia				32	0
44	Cuba				0	0
45	Cyprus	140	272	243	283	172
46	Czech	169	464	195	112	128
47	Denmark				0	0
48	Djibouti				0	0
49	Dominica				0	0
50	Dominican Republic				0	0
51	East Timor / Timor-Leste				0	0
52	Ecuador				0	0
53	Egypt	383	534	1042	1276	1417
54	El Salvador				0	0
55	Equatorial Guinea				0	0
56	Eritrea				0	0
57	Estonia	32		16	17	0
58	Ethiopia				0	0
59	Fiji		4		0	2
60	Finland	175	64		0	0
61	France	3440	3507	4146	4169	2100
62	Gabon				0	0

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
63	Gambia				0	0
64	Georgia			16	32	16
65	Germany	2026	1876	1785	1309	971
66	Ghana				0	0
67	Greece	1672	1969	1819	1850	1287
68	Grenada				0	0
69	Guatemala				0	0
70	Guinea				0	0
71	Guinea-Bissau				0	0
72	Guyana				0	0
73	Haiti				0	0
74	Holy See				0	0
75	Honduras				0	0
76	Hong Kong	724	667	677	436	272
77	Hungary	16	48	32	32	80
78	Iceland				0	0
79	India				0	0
80	Indonesia		32	304	128	32
81	Iran			111	299	183
82	Iraq				0	0
83	Ireland	15			32	76
84	Israel	941	932	730	785	432
85	Italy	1335	1396	449	1152	446
86	Ivory Coast				0	16
87	Jamaica				0	0
88	Japan	4840	3787	5010	5098	3344
89	Jordan	718	691	1069	931	803
90	Kazakhstan			33	0	33
91	Kenya				0	0
92	Kiribati				0	0
93	Korea Rep	222	345	696	732	598
94	Kuwait	862	690	942	1107	880
95	Kyrgyzstan				0	0

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
96	Laos				0	0
97	Latvia	240	192	192	160	32
98	Lebanon	469	532	344	314	252
99	Lesotho				0	0
100	Liberia				0	0
101	Libya	60	210	60	104	30
102	Liechtenstein				0	0
103	Lithuania	126	312	256	96	32
104	Luxembourg		16		0	0
105	Macedonia, The Former Yugoslav Republic of				0	0
106	Madagascar				0	0
107	Malawi				0	0
108	Malaysia	148	155	272	285	224
109	Maldives	4	5	4	4	5
110	Mali		1		0	0
111	Malta	21	33		0	0
112	Marshall Islands				0	0
113	Mauritania				0	0
114	Mauritious	30	19	17	41	3
115	Mexico				16	0
116	Micronesia , Federated States of				0	0
117	Moldova				0	0
118	Monaco				0	0
119	Mongolia				0	0
120	Morocco		16	209	166	109
121	Mozambique				0	0
122	Namibia				0	0
123	Nauru				0	0
124	Nepal				0	0
125	Netherland	18251	20459	15175	13393	7692
126	New Zealand	238	143	442	175	188
127	Nicaragua				0	0
128	Niger				0	0

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
129	Nigeria				0	0
130	Norway	939	1136	967	1016	890
131	Oman	3			15	30
132	Pakisthan	103	17	117	0	30
133	Palau				0	0
134	Panama	2		1	0	0
135	Papua New Guinea				0	0
136	Paraguay				0	0
137	Peru				0	0
138	Philippines	8			0	0
139	Poland	127	272	256	80	176
140	Portugal	84	103	133	236	32
141	Qatar	136	228	240	241	161
142	Romania	16	32	24	32	0
143	Russia	2081	1292	1150	48	112
144	Rwanda				0	0
145	Saint Kitts and Nevis				0	0
146	Saint Lucia				0	0
147	Saint Vincent and the Grenadines				0	0
148	Samoa				0	0
149	San Marino				0	0
150	Sao Tome and Principe				0	0
151	Saudi Arabia	2692	3110	3727	2696	3051
152	Senegal				0	0
153	Seychelles				0	0
154	Sierra Leone				0	0
155	Singapore	687	294	380	646	414
156	Slovakia				0	0
157	Slovenia	16	16	16	0	0
158	Solomon Islands				0	0
159	Somalia				0	0
160	South Africa	168	283	332	562	168
161	Spain	2637	2699	2696	2422	1871

SL NO.	COUNTRIES	2005	2006	2007	2008	2009*
162	Sri Lanka	11	102		25	15
163	Sudan				0	0
164	Suriname				0	0
165	Swaziland				0	0
166	Sweeden		222	332	338	252
167	Switzerland		35	18	7	123
168	Syria	1366	1391	1404	1551	947
169	Taiwan	69	143	130	210	64
170	Tajikistan				0	0
171	Tanzania				0	32
172	Thailand	492	697	16	669	792
173	Togo				0	0
174	Tonga				0	0
175	Trinidad	272	288	336	407	192
176	Tunisia	47	50	46	91	32
177	Turkey	397	660	866	1206	438
178	Turkmenistan				0	0
179	Tuvalu				0	0
180	U.A.E	7095	9209	11757	14563	8972
181	U.K.	6510	5200	3738	3429	3651
182	Uganda				0	0
183	Ukrane	135	92	342	494	41
184	Uruguay				0	0
185	USA	48956	44793	43334	38718	22361
186	Uzbekistan				0	0
187	Vanuatu				0	0
188	Venezuela				0	0
189	Vietnam		32	16	0	111
190	West Indies			16	0	0
191	Yemen				0	0
192	Yugoslavia				0	0
193	Zambia				0	0
194	Zimbabwe				0	0
TOTAL		**118290**	**117329**	**115265**	**111309**	**71122**

Source: CEPCI Cashew Bulletin

Note: * till August 2009

Table : 15

EXPORT OF CASHEW KERNELS FROM INDIA DURING 2003-2004 TO 2005-2006

Countries	2003-2004		2004-2005		2005-2006	
	Qty (M.T)	Value (Rs.Crs)	Qty (M.T)	Value (Rs.Crs)	Qty (M.T)	Value (Rs.Crs)
U.S.A	48504	881.55	61546	1288.49	43149	958.33
Netherlands	12237	215.03	15693	345.67	18736	408.82
U.A.E	6239	102.42	6690	148.23	8274	184.41
U.K	5392	95.61	7108	158.34	6238	140.88
Japan	5522	101.95	5047	111.21	4685	110.2
France	2444	43.61	3329	66.49	3470	75.79
Saudi Arabia	2011	32.95	2998	61.55	2827	59.61
Spain	2198	41.11	2870	64.8	2648	61.09
Belgium	1769	33.88	2497	53.18	2378	54.48
Germany	1574	26.11	1966	42.39	1991	42.21
Russia	1413	22.09	2331	43.41	1990	38.77
Greece	830	15.57	1511	33.74	1859	42.61
Canada	1354	22.72	1540	31.39	1558	33.14
Italy	986	17.74	1119	23.72	1236	25.2
Australia	275	4.38	873	18.36	1114	25.29
Norway	890	15.9	1318	29.15	873	19.89
Kuwait	847	15.34	574	12.78	863	19.76
Hong Kong	477	10.25	719	17.71	788	17.28
Israel	508	9.71	964	23.26	752	17.4
Singapore	513	9.24	510	11.6	694	13.61
Lebanon	561	11.28	655	14.95	470	9.61
Bahrain	439	6.82	362	7.08	393	7.8
Korea Rep.	311	5.83	213	5.22	255	5.85
New Zealand	332	5.58	201	4.46	204	4.62
Malaysia	40	0.69	62	1.39	191	4.05
Others	3162	57.13	3973	90.68	6505	134.17
Total	**100828**	**1804.43**	**126667**	**2709.24**	**114143**	**2514.86**

Source : CEPCI

Table : 16

EXPORT OF CASHEW KERNELS THROUGH DIFFERENT PORTS IN INDIA (Qty in Mt)							
Year	Cochin	Madras	Bombay	Mangalore	Calicut	Quilon	Tuticorin
1965-66	45236	162	135	1819	937	3548	
1966-67	44710	183	34	1695	152	2416	
1967-68	45202	230	87	1452	485	2957	
1968-69	59611	247	527	1393	389	4220	
1969-70	51467	247	273	1752	259	3425	
1970-71	45643	291	71	1577	159	2485	
1971-72	56992	320	108	1030	18	2395	
1972-73	63244	207	107	1347	0	437	
50924	50924	164	116	732	0	952	
1974-75	60825	203	206	579	0	736	
1975-76	50613	230	249	1276	0	0	
1976-77	48630	712	194	1756	0	0	
1977-78	36792	579	124	1616	0	0	
1978-79	25817	213	135	712	0	0	
1979-80	36574	219	226	784	0	0	
1980-81	24754	259	238	1523	0	0	6031
1981-82	23843	138	439	1572	0	0	5545
1982-83	28075	267	324	1286	0	0	243
1983-84	35245	205	134	597	0	0	15
1984-85	31409	225	99	480	0	0	226
1985-86	31904	131	606	311	0	0	2201
1986-87	36272	64	1171	1184	0	0	3068

EXPORT OF CASHEW KERNELS THROUGH DIFFERENT PORTS IN INDIA

(Qty in Mt)

	Cochin	Madras	Bombay	Mangalore	Tuticorin	Goa	Vizag	Others
1987-88	33163	985	113	671	2017	0	0	
1988-89	30234	1368	84	1323	1014	0	0	
1989-90	41662	1325	-	864	1008	0	0	
1990-91	44060	1267	-	662	4112	0	0	
1991-92	31660	5455	68	120	11855	0	0	1078
1992-93	26981	7472	98		18040	167	100	541
1993-94	30684	8453	124		28602	372	714	393
1994-95	34379	14728	96		26786	312	574	0
1995-96	33254	5448			30229		460	943
1996-97	38400	2003			26465	250	1112	433
1997-98	41171	2176			31301	333	1502	110
1998-99	43665	1647			29321	131	2369	144
1999-00	50022	2593			35952	279	3231	4728
2000-01	49874	2578		463	32035	468	2760	1440
2001-02	54330	2934	0	2274	33308	344	3829	2805
2002-03	66860	0	0	4967	29398	549	2363	0
2003-04	68119	0	0	6199	23354	521	2633	0
2004-05	79950	0	0	8999	33646	528	3544	0
2005-06	74377	0	0	7144	27646	526	4150	0
2006-07	72861	0	0	9178	31078	561	4862	0
2007-08	69298	0	0	9381	29897	648	5116	0
2008-09	63739	0	0	10507	27892	461	5541	0
2009-10	29645	0	0	4055	13892	0	0	447

Source: CEPCI

Figures upto sept 09 only

Table : 17

EXPORT OF CASHEW KERNELS FROM INDIA

(Quantity in M.T.)
(RS. (000)

1992-93		**1993-94**		**1994-95**		**1995-96**		**1996-97**	
Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
53436	74549	69884	104602	77000	124602	70334	124050	68663	128550
1997-98		**1998-99**		**1999-00**		**2000-01**		**2001-02**	
Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
76593	139610	75026	160990	92461	245145	89155	204975	97550	177680
2002-03		**2003-04**		**2004-05**		**2005-06**		**2006-07**	
Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
104137	19330239	100828	18044287	126667	27092353	114143	25148645	118540	24551541
2007-08		**2008-09**		**2009-10**					
Qty	Value	Qty	Value	Qty	Value				
114340	22888967	108131	29502423						

vision2020/ggp/jayashree
Note : * till August 2009

CHAPTER - 17

MARKETING-ACHIEVING GROWTH RATES

GROWTH RATES IN SALES ARE DETERMINED AT 22.5% FROM NOW TO 2020, SUBJECT TO INDIGENOUS PRODUCTION REACHING 1.95 MILLION METRIC TONES

17.1 The RCN production of 1.95 million metric tones or higher in the nation will make it possible to achieve growth rates of 22.5% per annum.

17.2 This is not presumptive as time and again, from inception of industry it has proved that increased availability of RCN from any source automatically generates the consumption.

17.3 This implies that cashews are under supplied to the consuming population.

17.4 The general perception in agricultural produce is that increasing production could generate surpluses which cannot be managed to be sold at the right price or forces producers to sell below cost of production.

17.5 This is not the case of tree crops and plantation crops generally. Cashew would be an exception that any expansion in the crop over next fifty years would not result in producer having to sell below cost of production.

17.6 This requires exceptional perception and study to relate growth in consumption is possible in growth in supply. The saying of the famous French Economist, Say is aptly applicable to cashew: "supply creates its own demand".

17.7 Cashew has a gestation period of 5 to 7 years. Hence, current increase in demand can never be supplied instantly like cash crops or annual crops.

17.8 Therefore, long range vision supported by measures to enthuse and persuade farmers to adopt cashew is envisaged.

THE AVERAGE UNIT VALUE WOULD INCREASE BY 24% AN ASSUMPTION OF 2% SIMPLE PER ANNUM.

17.9 There are two measures of projections for unit value. One is a natural increase due to the demand of the product. The second is consequences of general inflation.

17.10 Hence an assumption of 2% per annum for next twelve years in simple terms is to be assumed.

17.11 USD 2.75 can be assumed safely as a base for W 320 for year 2010-11. On this basis it can be safely assured that value will be around USD 3.25 in 2020. Assuming a Rupee of Rs 55 to the dollar the value will translate to Rs 394 per kg

17.12 If this is the value of the cashew per kg, the assumption can be used for all calculations backward into the value chain for cost of manufacture of kernels, value of raw cashews and also the realization for producers. This implies an FOB rupee value of Rs. 10,835 crores.

17.13 The value of cashews for 275,000 Mt can be at Rs 394 per kg average price, a sum of Rs 10,835 crores which will be approximately 4-5 times the current rupee value export level of Rs 2500. Value addition will be over this amount.

17.14 It also implies that India will continue to be number one in global exports of cashews. This will be the value of plain cashew kernels. Any value addition will be over that.

IT IS POSSIBLE TO ACHIEVE GROWTH RATES IN ALL MARKETS AS PENETRATION OF CASHEWS IS NOW AT THE ELITE.

17.15 Till now cashews were consumed by the elite. Now it would be accessible by the middle class which will consume smaller quantities on a larger base in the confectionary segment.

17.16 Cashews will be available and accessible all over the world in larger number of outlets in better choices. Growth rates will be higher on a low base in areas and countries where cashews are currently not made available.

MARKETING PLANS IMPLY THAT A LARGER SECTION OF THE POPULATION WILL ACCESS CASHEW AND CURRENT CASHEW BUYERS WILL CONSUME MORE

17.17 Marketing plans will be based only on assumption of a given availability at a reasonable price. The marketeer will then consolidate the consumer liking and perception into a regular and steady flow through distribution channels. For instance, 7/11 has over 7000 stores in Japan and a marketer established a market for 1.1 units per day per store. This was not for the elite but for the average consumer in Japan who frequented the 7/11 stores.

17.18 Similarly, marketing on a business to business basis will allow small portions of cashews to be consumed by a large number of consumers in confectionary: biscuits, cookies, frozen desserts, chocolates and similar ready to eat preparations.

MARKETING EFFORTS NEED TO BE CONSOLIDATED

17.19 Marketing efforts cannot be scattered and fragmented. The efforts on marketing need to be consolidated in the value chain.

17.20 Individual efforts of marketing the product will no doubt succeed on the delivery of value to the consumer. This would not be sufficient.

17.21 Information into the marketing team must be a continuous stream as much as feedback from distribution back into marketing and down the value chain.

THREE IMPORTANT ASPECTS FOR GROWTH: THE NUTRITION STORY, THE LIKEABILITY STORY AND CASHEWS AS INGREDIENTS

17.22 Growth needs drivers. There are three drivers possible. The information on nutrition. The second is the spread of likeability and the third is cashew as an ingredient. Ingredients will be key driver in both volume and value realization.

17.23 The nutrition story is that having a few cashews a day will make people buy cashews regularly. In contrast with the normal "health food" story, cashews are already popular as a snack.

The term food is a sort of dis-orientation on the image of cashews. It takes off the negative perception of cashews, especially related to fat and some myths associated on cashew in parts of the world that they have and generate cholesterol.

17.24 The likeability story is one where cashews are liked in one part of the world but another part of the world is not even aware of it. Cashew needs to be "introduced". This will happen when marketers track down areas where cashews are not available and make them available.

17.25 A cashew as ingredients needs knowledge to be made available on how cashews can be used. The identification of recipes for individual is already a process. This makes cashews to be added on the grocery list. Industrial recipes need to be studied for introduction of cashews.

17.26 CEPCI can promote a Centre for Applications for Cashew. This centre would provide facilities for chefs and handlers of recipes to experiment with cashews and results can be made available to sponsors or the people at large.

IDENTIFIERS AND TRACKERS NEEDED FOR MAKING THE GROWTH STORY VIVID AND BENEFICIARY BEING AWARE OF THE SAME.

17.27 A marketing program cannot be hazy or fudgy. Once a marketing strategy is finalized for cashew there must be distinct identifiers.

17.28 Identifiers can be certain definite events where cashews get promoted. For instance, if restaurants are targeted then the identifier will be in the lobby that a "cashew festival" is in progress.

17.29 Identifiers can also mean specific outlets or specialty outlets. For example, health food stores can have posters which claim the benefits of cashews.

17.30 Growth rates will be compatible with State policies and goals of international associations and institutions.

17.31 CEPCI or an international agency should track this progress and measure the success of the marketing problem by having a systematic feedback from the industry about the impact of the programs.

17.32 More important feedback on satisfaction by consumers will be more rewarding.

GROWTH RATES WILL BE COMPATIBLE WITH STATE POLICIES AND GOALS OF INTERNATIONAL ASSOCIATIONS AND INSTITUTIONS.

17.33 Cashew cannot be in a different economic environment. The perception that cashew is important should be made by State and international institutions. This gives it the attention and importance it deserves.

17.34 For instance, growth in cashew growing and small enterprise makes it a potential for achieving the Millennium Development Goals laid down by multilateral institutions.

17.35 The World Bank has been involved with Cashewnut development. This is because of the perception that cashew is beneficial when cultivated in the Least Developed Countries.

17.36 Higher than normal growth rates are viewed appreciatively as it is in the nature of most commodities to have a nominal, slow or a negative growth rate from time to time.

EXECUTIVE SUMMARY

- Growth rates in sales are determined at 22% from now to 2020 with subject to indigenous production reaching 1.95 million metric tones.

- The average unit value would increase by 24% an assumption of 2% simple per annum. This implies an FOB rupee value of Rs 10,835 crores.

- It is possible to achieve growth rates in all markets as penetration of cashews is now at the elite.

- Marketing plans imply that a larger section of the population will access cashew and current cashew buyers will consume more.

- Marketing efforts need to be consolidated.

- Three important aspects for growth: the nutrition story, the likeability story and cashews as ingredients.

- Ingredients will be key driver in both volume and value realization.

- Identifiers and trackers needed for making the growth story vivid and beneficiary.

- Growth rates will be compatible with State policies and goals of international associations and institutions.

Table : 18

LIST OF COUNTRIES OF EXPORT						
SL NO.	**COUNTRIES**	**2005**	**2006**	**2007**	**2008**	**% OF GROWTH**
1	Algeria	32	81	111	269	740.63
2	Australia	1065	1239	2554	2455	130.52
3	Austria	7	27	31	45	542.86
4	Bahrain	396	432	434	557	40.66
5	Belgium	2584	2159	2624	2313	-10.49
6	Brunie				14	
7	Bulgaria	271	262	175	319	17.71
8	Canada	1589	1295	626	909	-42.79
9	China			34	65	
10	Costa Rica		67		32	
11	Croatia				32	
12	Cyprus	140	272	243	283	102.14
13	Czech	169	464	195	112	-33.73
14	Egypt	383	534	1042	1276	233.16
15	Estonia	32		16	17	-46.88
16	Fiji		4			
17	Finland	175	64			
18	France	3440	3507	4146	4169	21.19
19	Georgia			16	32	
20	Germany	2026	1876	1785	1309	-35.39
21	Greece	1672	1969	1819	1851	10.71
22	Hong Kong	724	667	677	436	-39.78
23	Hungary	16	48	32	32	100.00
24	Indonesia		32	304	128	

SL NO.	COUNTRIES	2005	2006	2007	2008	% OF GROWTH
25	Iran			111	299	
26	Ireland	15			32	113.33
27	Israel	941	932	730	785	-16.58
28	Italy	1335	1396	449	1152	-13.71
29	Japan	4840	3787	5010	5099	5.35
30	Jordan	718	691	1069	931	29.67
31	Kazakhstan			33		
32	Korea Rep	222	345	696	732	229.73
33	Kuwait	862	690	942	1107	28.42
34	Latvia	240	192	192	160	-33.33
35	Lebanon	469	532	344	314	-33.05
36	Libya	60	210	60	104	73.33
37	Lithuania	126	312	256	96	-23.81
38	Luxembourg		16			
39	Malaysia	148	155	272	275	85.81
40	Maldives	4	5	4	4	0.00
41	Mali		1			
42	Malta	21	33			
43	Mauritious	30	19	17	41	36.67
44	Mexico				16	
45	Morocco		16	209	166	
46	Netherland	18251	20459	15175	13393	-26.62
47	New Zealand	238	143	442	175	-26.47
48	Norway	939	1136	967	1016	8.20
49	Oman	3			15	400.00
50	Pakisthan	103	17	117		
51	Panama	2		1		

SL NO.	COUNTRIES	2005	2006	2007	2008	% OF GROWTH
52	Philippines	8				
53	Poland	127	272	256	80	-37.01
54	Portugal	84	103	133	236	180.95
55	Qatar	136	228	240	241	77.21
56	Romania	16	32	24	32	100.00
57	Russia	2081	1292	1150	48	-97.69
58	Saudi Arabia	2692	3110	3727	2697	0.19
59	Singapore	687	294	380	468	-31.88
60	Slovenia	16	16	16		
61	South Africa	168	283	332	562	234.52
62	Spain	2637	2699	2696	2422	-8.15
63	Sri Lanka	11	102		25	127.27
64	Sweden		222	332	338	
65	Switzerland		35	18	6	
66	Syria	1366	1391	1404	1551	13.54
67	Taiwan	69	143	130	210	204.35
68	Thailand	492	697	16	669	35.98
69	Trinidad	272	288	336	407	49.63
70	Tunisia	47	50	46	91	93.62
71	Turkey	397	660	866	1206	203.78
72	U.A.E	7095	9209	11757	14521	104.67
73	U.K.	6510	5200	3738	3386	-47.99
74	Ukraine	135	92	342	494	265.93
75	USA	48956	44793	43334	38693	-20.96
76	Vietnam		32	16		
77	West Indies			16		
TOTAL		**118290**	**117329**	**115265**	**110950**	

Source : Country – Website / Export Figures: CEPC of India

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Table : 19

LIST OF COUNTRIES WITH MAXIMUM GROWTH						
SL NO.	**COUNTRIES**	**2005**	**2006**	**2007**	**2008**	**% OF GROWTH**
1	Algeria	32	81	111	269	740.63
2	Australia	1065	1239	2554	2455	130.52
3	Austria	7	27	31	45	542.86
4	Cyprus	140	272	243	283	102.14
5	Egypt	383	534	1042	1276	233.16
6	Hungary	16	48	32	32	100.00
7	Ireland	15			32	113.33
8	Korea Rep	222	345	696	732	229.73
9	Oman	3			15	400.00
10	Portugal	84	103	133	236	180.95
11	Romania	16	32	24	32	100.00
12	South Africa	168	283	332	562	234.52
13	Sri Lanka	11	102		25	127.27
14	Taiwan	69	143	130	210	204.35
15	Turkey	397	660	866	1206	203.78
16	U.A.E	7095	9209	11757	14521	104.67
17	Ukrane	135	92	342	494	265.93

Table : 20

OECD COUNTRIES						QTY IN MTS
SL NO	**COUNTRIES**	**(Actual from India)**	**PROJECTIONS**			
		2008	***2012***	***2016***	***2020***	***2024***
1	Australia	2454				
2	Austria	45				
3	Belgium	2313				
4	Canada	909				
5	Czech	112				
6	Denmark					
7	Finland					
8	France	4169				
9	Germany	1309				
10	Greece	1850				
11	Hungary	32				
12	Iceland					
13	Ireland	32				
14	Italy	1152				
15	Japan	5098				
16	Korea	732				
17	Luxembourg					

SL NO	COUNTRIES	(Actual from India)	PROJECTIONS			
		2008	*2012*	*2016*	*2020*	*2024*
18	Mexico	16				
19	Netherlands	13393				
20	Newzealand	175				
21	Norway	1016				
22	Poland	80				
23	Portugal	236				
24	Slovak Rublic					
25	Spain	2422				
26	Sweeden	338				
27	Switzerland	6				
28	Turkey	1206				
29	UK	3385				
30	USA	38700				
ALL OECD TOTAL		**81180**			**275000**	
INDIAS TOTAL EXPORTS		**110950**				
PERCENTAGE OF OECD TO TOTAL		**73.17**				

Table : 21

SL NO	NAME OF THE COUNTRY	POPULATION
1	China	1,321,851,888
2	India	1,129,866,154
3	European Union	490,426,060
4	United States	301,139,947
5	Indonesia	234,693,997
6	Brazil	190,010,647
7	Pakistan	164,741,924
8	Bangladesh	150,448,339
9	Russia	141,377,752
10	Nigeria	135,031,164
11	Japan	127,433,494
12	Mexico	108,700,891
13	Philippines	91,077,287
14	Vietnam	85,262,356
15	Germany	82,400,996
16	Egypt	80,335,036
17	Ethiopia	76,511,887
18	Turkey	71,158,647
19	Congo, Democratic Republic of the	65,751,512
20	Iran	65,397,521
21	Thailand	65,068,149
22	France	63,718,187
23	United Kingdom	60,776,238
24	Italy	58,147,733
25	Korea, South	49,044,790
26	Burma	47,373,958

SL NO	NAME OF THE COUNTRY	POPULATION
27	Ukraine	46,299,862
28	Colombia	44,379,598
29	South Africa	43,997,828
30	Spain	40,448,191
31	Argentina	40,301,927
32	Tanzania	39,384,223
33	Sudan	39,379,358
34	Poland	38,518,241
35	Kenya	36,913,721
36	Morocco	33,757,175
37	Canada	33,390,141
38	Algeria	33,333,216
39	Afghanistan	31,889,923
40	Uganda	30,262,610
41	Nepal	28,901,790
42	Peru	28,674,757
43	Uzbekistan	27,780,059
44	Saudi Arabia	27,601,038
45	Iraq	27,499,638
46	Venezuela	26,023,528
47	Malaysia	24,821,286
48	Korea, North	23,301,725
49	Ghana	22,931,299
50	Taiwan	22,858,872
51	Romania	22,276,056
52	Yemen	22,230,531
53	Sri Lanka	20,926,315

SL NO	NAME OF THE COUNTRY	POPULATION
54	Mozambique	20,905,585
55	Australia	20,434,176
56	Madagascar	19,448,815
57	Syria	19,314,747
58	Cameroon	18,060,382
59	Cote d'Ivoire	18,013,409
60	Netherlands	16,570,613
61	Chile	16,284,741
62	Kazakhstan	15,284,929
63	Burkina Faso	14,326,203
64	Cambodia	13,995,904
65	Ecuador	13,755,680
66	Malawi	13,603,181
67	Niger	12,894,865
68	Guatemala	12,728,111
69	Senegal	12,521,851
70	Zimbabwe	12,311,143
71	Angola	12,263,596
72	Mali	11,995,402
73	Zambia	11,477,447
74	Cuba	11,394,043
75	Greece	10,706,290
76	Portugal	10,642,836
77	Belgium	10,392,226
78	Tunisia	10,276,158
79	Czech Republic	10,228,744
80	Serbia	10,150,265

SL NO	NAME OF THE COUNTRY	POPULATION
81	Hungary	9,956,108
82	Guinea	9,947,814
83	Rwanda	9,907,509
84	Chad	9,885,661
85	Belarus	9,724,723
86	Dominican Republic	9,365,818
87	Bolivia	9,119,152
88	Somalia	9,118,773
89	Sweden	9,031,088
90	Haiti	8,706,497
91	Burundi	8,390,505
92	Austria	8,199,783
93	Azerbaijan	8,120,247
94	Benin	8,078,314
95	Switzerland	7,554,661
96	Honduras	7,483,763
97	Bulgaria	7,322,858
98	Tajikistan	7,076,598
99	Hong Kong	6,980,412
100	El Salvador	6,948,073
101	Paraguay	6,669,086
102	Laos	6,521,998
103	Israel	6,426,679
104	Sierra Leone	6,144,562
105	Jordan	6,053,193
106	Libya	6,036,914
107	Papua New Guinea	5,795,887

SL NO	NAME OF THE COUNTRY	POPULATION
108	Togo	5,701,579
109	Nicaragua	5,675,356
110	Denmark	5,468,120
111	Slovakia	5,447,502
112	Kyrgyzstan	5,284,149
113	Finland	5,238,460
114	Turkmenistan	5,097,028
115	Eritrea	4,906,585
116	Georgia	4,646,003
117	Norway	4,627,926
118	Singapore	4,553,009
119	Bosnia and Herzegovina	4,552,198
120	Croatia	4,493,312
121	United Arab Emirates	4,444,011
122	Central African Republic	4,369,038
123	Moldova	4,320,490
124	Costa Rica	4,133,884
125	New Zealand	4,115,771
126	Ireland	4,109,086
127	Puerto Rico	3,944,259
128	Lebanon	3,925,502
129	Congo, Republic of the	3,800,610
130	Albania	3,600,523
131	Lithuania	3,575,439
132	Uruguay	3,460,607
133	Mauritania	3,270,065
134	Panama	3,242,173

SL NO	NAME OF THE COUNTRY	POPULATION
135	Oman	3,204,897
136	Liberia	3,195,931
137	Armenia	2,971,650
138	Mongolia	2,951,786
139	Jamaica	2,780,132
140	West Bank	2,535,927
141	Kuwait	2,505,559
142	Bhutan	2,327,849
143	Latvia	2,259,810
144	Lesotho	2,125,262
145	Macedonia	2,055,915
146	Namibia	2,055,080
147	Slovenia	2,009,245
148	Botswana	1,815,508
149	Gambia, The	1,688,359
150	Gaza Strip	1,482,405
151	Guinea-Bissau	1,472,780
152	Gabon	1,454,867
153	Estonia	1,315,912
154	Mauritius	1,250,882
155	Swaziland	1,133,066
156	Timor-Leste	1,084,971
157	Trinidad and Tobago	1,056,608
158	Fiji	918,675
159	Qatar	907,229
160	Cyprus	788,457
161	Guyana	769,095

SL NO	NAME OF THE COUNTRY	POPULATION
162	Comoros	711,417
163	Bahrain	708,573
164	Montenegro	684,736
165	Solomon Islands	566,842
166	Equatorial Guinea	551,201
167	Djibouti	496,374
168	Luxembourg	480,222
169	Suriname	470,784
170	Macau	456,989
171	Cape Verde	423,613
172	Malta	401,880
173	Western Sahara	382,617
174	Brunei	374,577
175	Maldives	369,031
176	Bahamas, The	305,655
177	Iceland	301,931
178	Belize	294,385
179	Barbados	280,946
180	French Polynesia	278,963
181	Netherlands Antilles	223,652
182	New Caledonia	221,943
183	Samoa	214,265
184	Vanuatu	211,971
185	Mayotte	208,783
186	Sao Tome and Principe	199,579
187	Guam	173,456
188	Saint Lucia	170,649

SL NO	NAME OF THE COUNTRY	POPULATION
189	Saint Vincent and the Grenadines	118,149
190	Tonga	116,921
191	Virgin Islands	108,448
192	Micronesia, Federated States of	107,862
193	Kiribati	107,817
194	Aruba	100,018
195	Jersey	91,321
196	Grenada	89,971
197	Northern Mariana Islands	84,546
198	Seychelles	81,895
199	Isle of Man	75,831
200	Dominica	72,386
201	Andorra	71,822
202	Antigua and Barbuda	69,481
203	Bermuda	66,163
204	Guernsey	65,573
205	Marshall Islands	61,815
206	American Samoa	57,663
207	Greenland	56,344
208	Faroe Islands	47,511
209	Cayman Islands	46,600
210	Saint Kitts and Nevis	39,349
211	Liechtenstein	34,247
212	Saint Martin	33,102
213	Monaco	32,671
214	San Marino	29,615
215	Gibraltar	27,967

SL NO	NAME OF THE COUNTRY	POPULATION
216	British Virgin Islands	23,552
217	Cook Islands	21,750
218	Turks and Caicos Islands	21,746
219	Palau	20,842
220	Wallis and Futuna	16,309
221	Anguilla	13,677
222	Nauru	13,528
223	Tuvalu	11,992
224	Montserrat	9,538
225	Saint Helena	7,543
226	Saint Pierre and Miquelon	7,036
227	Saint Barthelemy	6,852
228	Falkland Islands (Islas Malvinas)	3,105
229	Svalbard	2,214
230	Norfolk Island	2,114
231	Niue	1,492
232	Tokelau	1,449
233	Christmas Island	1,402
234	Holy See (Vatican City)	821
235	Cocos (Keeling) Islands	596
236	Pitcairn Islands	48

http://www.photius.com/rankings/population/population_2008_1.html
SOURCE: CIA World Factbook 2008

Table : 22

Cashew Nuts, Fresh or Dried, Shelled or Peeled U.S. Imports For Consumption (Annual Data) *In 1,000 Dollars* - Customs Value where quantities are collected in kilograms							
Country	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
India	144,992	156,265	160,721	287,076	241,423	215,272	212,842
Brazil	125,174	114,398	94,302	97,278	125,896	81,562	72,471
Vietnam	7,791	15,493	22,745	22,903	50,309	47,639	69,606
Indonesia	1,212	3,100	10,235	6,285	5,494	3,168	1,934
Tanzania	58	0	0	0	0	673	942
Mozambique	12,722	12,049	14,173	8,204	12,771	1,090	834
Netherlands	0	83	74	305	550	897	504
Kenya	2,029	1,331	77	179	164	319	470
South Africa	536	761	69	67	143	108	350
Cote d'Ivoire	0	0	11	370	260	382	300
Bolivia	106	0	263	94	168	29	297
Madagascar	0	23	166	0	0	0	268
Uruguay	0	0	0	0	95	148	205
Sri Lanka	108	135	128	0	0	113	166
Guatemala	254	342	266	319	379	170	83
Nigeria	21	0	126	128	178	177	82
Canada	8	48	59	142	57	46	69
Singapore	657	78	60	313	258	243	54
Thailand	52	0	432	99	161	18	45
Burkina Faso	0	0	0	0	0	0	45
United Kingdom	51	0	0	488	263	306	43

Country	1996	1997	1998	1999	2000	2001	2002
Honduras	69	2	2	8	8	15	35
China	1,004	615	943	513	649	19	27
Peru	51	204	0	0	35	0	26
El Salvador	172	339	186	177	228	12	19
Mexico	0	0	102	54	0	0	18
Nicaragua	0	0	0	0	0	0	6
Israel	0	0	0	0	0	0	2
Australia	0	0	63	0	175	0	0
Cayman Is	0	80	0	0	0	0	0
Germany	0	0	0	61	0	0	0
Venezuela	148	0	0	487	0	0	0
United Arab Em	226	0	0	0	0	0	0
Turkey	90	346	203	40	0	0	0
Tunisia	0	0	0	0	0	6	0
Taiwan	0	0	0	108	0	0	0
Spain	67	0	0	0	19	30	0
Poland	0	70	0	0	0	0	0
Morocco	70	0	0	0	0	0	0
Korea	0	0	0	0	105	0	0
Italy	0	103	28	0	4	0	0
Ireland	0	0	0	59	0	286	0
Hong Kong	37	541	596	441	138	0	0
France	56	0	0	15	0	0	0
Chile	134	0	0	0	0	0	0
Total	**297,897**	**306,405**	**306,032**	**426,213**	**439,929**	**352,731**	**361,744**

Table : 23

Cashew Nuts, Fresh or Dried, Shelled or Peeled U.S. Imports For Consumption (Annual Data) *In 1,000 Units of Quantity* - First Unit of Quantity where quantities are collected in kilograms							
Country	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
India	28,386	31,953	33,289	48,619	43,210	48,827	55,011
Brazil	26,355	25,538	20,471	16,332	24,445	20,902	20,060
Vietnam	1,640	3,650	5,231	3,869	10,119	12,899	20,158
Indonesia	237	676	2,332	1,170	1,062	810	493
Tanzania	13	0	0	0	0	185	255
Mozambique	3,128	3,433	3,691	1,842	2,810	368	373
Netherlands	0	16	16	61	95	207	111
Kenya	436	302	20	53	32	79	141
South Africa	125	214	19	17	34	34	167
Cote d'Ivoire	0	0	3	68	60	120	104
Bolivia	31	0	79	32	62	16	144
Madagascar	0	6	25	0	0	0	87
Uruguay	0	0	0	0	16	32	32
Sri Lanka	24	26	24	0	0	17	25
Guatemala	76	81	71	61	99	31	16
Nigeria	5	0	33	29	43	54	29
Canada	1	6	10	19	10	5	10
Singapore	121	16	10	56	47	48	16
Thailand	11	0	81	16	29	5	10
Burkina Faso	0	0	0	0	0	0	12
UK	16	0	0	76	49	64	16

Country	1996	1997	1998	1999	2000	2001	2002
Honduras	7	0	0	1	1	2	4
China	245	161	237	94	110	4	11
Peru	16	65	0	0	17	0	18
El Salvador	29	62	33	29	41	2	3
Mexico	0	0	23	10	0	0	2
Nicaragua	0	0	0	0	0	0	1
Israel	0	0	0	0	0	0	0
Australia	0	0	23	0	62	0	0
Cayman Is	0	15	0	0	0	0	0
Germany	0	0	0	16	0	0	0
Venezuela	29	0	0	80	0	0	0
UAE	48	0	0	0	0	0	0
Turkey	16	64	35	15	0	0	0
Tunisia	0	0	0	0	0	1	0
Taiwan	0	0	0	16	0	0	0
Spain	16	0	0	0	6	12	0
Poland	0	18	0	0	0	0	0
Morocco	16	0	0	0	0	0	0
Korea	0	0	0	0	17	0	0
Italy	0	16	17	0	1	0	0
Ireland	0	0	0	16	0	50	0
Hong Kong	9	140	147	107	16	0	0
France	16	0	0	2	0	0	0
Chile	32	0	0	0	0	0	0
Total	61,086	66,458	65,920	72,706	82,493	84,774	97,309

CHAPTER - 18

MARKETING-VALUE ADDITION

IMMENSE SCOPE IN VALUE ADDITION.

18.1 Value addition implies increase in the perception of the consumer that, the product that is purchased has an increased value.

18.2 There are many statements that arise in the market place or in the minds of consumer: "value for money", "higher the value, higher the price" "higher value, lower price".

18.3 The implications of value and price are explained in classical economy. The purchaser will buy a product only when it is worth it.

18.4 In the modern economy value-added is a term applied where a seller or merchandiser gives an additional value which the customer pays for some satisfaction.

18.5 In cashews value added implies, for instance, that it is roasted and salted.

18.6 There is immense scope for value addition in cashew in the form of: better product quality, value addition as demanded by customer and that which can be a differentiation and increases the worth of the product to the consumer.

FIND OUT WHAT THE WORLD NEEDS AND SUPPLY IT.

18.7 In cashew value addition can take place in simpler forms. "Find out what the world needs and supply it" can be a good slogan.

18.8 Different customers in different nations may require a product or commodity in a particular form or quality. This opportunity needs to be taken. Listening to the customer and taking interest in the customer's requirement will generate the needs of the customer in the cashew world.

18.9 This can mean physical characteristics e.g. Zero broken, white and crisp in plain cashews.

18.10 It can mean roasting and salting and supplying the same in bulk or consumer packs.

18.11 It can mean change in the packaging and presentation where customer is prepared to pay for the removal of inconvenience caused or enhancement of the convenience in handling of the product.

INCREASING COSTS IN DEVELOPED WORLD AND LESS EFFECTIVE COST IN INDIA - A POSITIVE DIRECTION TO PRODUCT DEVELOPMENT.

18.12 A major change in the importing world especially Europe and Japan is an ageing population. It is implied that larger percentage of the population will be ageing and hence the cost of labour is going higher and availability poorer.

18.13 More and more consumers would be demanding value addition in India.

18.14 There is immense scope for having value addition in a cashew factory before it is packed and made for the Indian consumer.

18.15 ″Product Development″ which is normally a term applied to appliance or automobile manufacturer can be applied to a limited extent. This requires the cashew industry to sit through with potential customers and assess the requirements and convert that into "product development"

CONFECTIONARY INPUT COST REASONABLE AS AGAINST VALUE ADDITION IN FOOD INDUSTRY.

18.16 Cashew is a great input into confectionary. Its weight may not even comprise of 5% of the total weight of the finished product.

18.17 It has enormous appeal. For instance, it may be only a few grams of cashews in an ice cream cup in India. The cost would be at least 50 to 100 ps per pack. The value increase is about Rs 2 per unit. This means, confectionary manufacturers get sure sales as well as higher margins on the input of cashews.

18.18 CEPCI must initiate active participation of cashews as an ingredient in the global confectionary industry.

ADDRESSING CURRENT PROBLEMS CAN PROVIDE 5 TO 7% NET VALUE ADDITION.

18.19 The current problems in cashews which prevail from time to time on product quality and performance are a deterrent to value addition.

18.20 The root causes of these problems may be many. But with good intentions and allocation of resources, there may be plenty of opportunity for increasing the prices to a higher equilibrium value

18.21 If this is done with costs under control, we have a value addition scenario building up.

18.22 This can add 5 to 7% of the current value of the cashews, which translates easily to over Rs 200 crores globally.

SPECIALITY CAN ADD VALUE FROM 5 TO 25 %.

18.23 Speciality cashews like Fair trade (FLO), Organic, Kosher and the like can add 5 to 25% of the value of the cashews.

18.24 In such cases though the prices are higher, they support a higher special or perceived value by the consumer on established channels.

18.25 Speciality can also include extraordinary good color (whiteness), geographical identification, taste and the like.

IMPROVED INFORMATION IN THE VALUE CHAIN CAN ADD VALUE OF 5%.

18.26 Cashew is prone to so many vagaries of nature and human beings. Cashew stakeholders must move information up and down the value chain. Well organized cashew business requires a dedicated value chain.

If information on crop estimates, inventories, manufacturing, marketing strengths and weaknesses flow down to the Manager and below areas it would be ideal.

18.27 Cashew is prone to errors of opinion and judgement due to sketchy official information. Therefore, it is imperative that the stakeholders invest to develop reliable field data and information to be transmitted to a central organization.

CO-ORDINATION AND NETWORKING CAN SAVE UP TO 8 TO 10% IN COSTS.

18.28 It is obvious that cashew industry is fragmented. How can advantages of consolidation be taken to overcome the disadvantages of fragmentation? Fragmentation exists because it is cost effective and favourable to producers and consumers.

18.29 There is a need for assessment of the common needs of the industry. It has been established by the UN that clusters can give more economic advantage than single units in a homogenous industry.

18.30 Organizations get negotiating power and cost advantages because of size and scale of operations. SME units can have similar advantages by pooling resources which have an advantage in such pooling and also negotiate for bulk discounts if they offer business to their suppliers which enable them to lower costs.

18.31 KCMA could secure a major concession in general insurance by negotiating for a bulk volume of transit insurance for its members.

18.32 Similarly, consolidation of cargo can result in better service from main lines or feeder lines in the specific voyages from origin to destination.

18.33 Personal networking amongst members of the industry can result in information sharing which can control costs as well as checkout misinformation or wrong data.

18.34 Technology can be procured at a reasonable rate when large number of small units can evaluate and tie up collaboration between equipment suppliers and manufacturers.

18.35 Similarly national and international experiences are shared when members of the association undertake study trips and record the results

LARGER VOLUMES CAN BRING DESTRUCTIVE PRICING. VALUE ADDITION WILL ENSURE SMOOTH FLOW OF PRODUCTS TO DESIRED LEVELS.

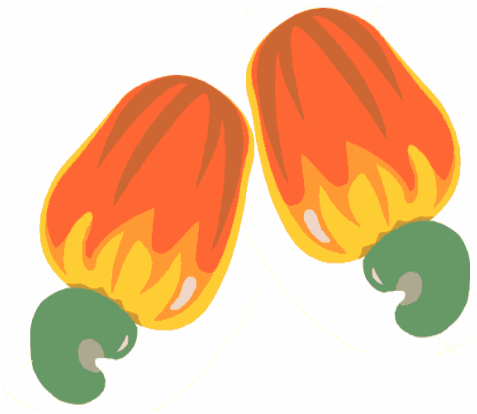
18.36 When large volumes are produced by a large number of operators, prices can decline for the produce below equilibrium. This can be destructive as industry will not have the surpluses to invest in the future, especially in technology.

18.37 Systematic value addition will prevent the dumping of produce at lower prices. It will also not cause any increase in prices suddenly as in commodity, as it would be already at a comparative higher price.

18.38 In value addition, products flow to the persons who prefer to buy small quantities regularly over a longer period of time.

18.39 CEPCI must initiate a study on valuation and have a matrix to evaluate the value added program to produce value.

18.40 Increased perception by consumers will raise value to every participant in the value chain



Value Added Cashews Resources

The most popular use of cashew is in the form of its edible nut. Many food companies are discovering the versatility of the nut as a snack or ingredient. The various value-adds on the basic cashew kernel are provided below:

- *Premium Snacks*: Natural, Roasted or coated with spices, chocolate, yogurt or honey

- *Natural Diced Cashew* - These are ideal for use in confectionery, bakery and cooking. The sizes vary from 2-8 mm.

- *Dry Roasted Diced Cashew* - Dry Roasting enhances the delicate flavor of cashew and makes it more suitable for ice cream, chocolate and candy.

- *Oil Roasted Cashew* - The biggest use of cashew is as oil – roasted snack. They are a healthy and premium alternative to common snacks.

- *Salted Cashew*

- *Sweetened Cashews*

EXECUTIVE SUMMARY

- Immense scope in value addition.
- Find out what the world needs and supply it.
- Increasing costs in developed world and less effective cost in India a positive direction to product development.
- Confectionary input cost reasonable as against value addition in food industry.
- Addressing current problems can provide 5 to 7% net value addition.
- Speciality can add value from 5 to 25%.
- Improved information in the value chain can add value of 5%.
- Co-ordination and networking can save up to 8 to 10% in costs.
- Larger volumes can bring destructive pricing. Value addition will ensure smooth flow of products to desired levels.

CHAPTER - 19

AWARENESS-NUTRITION STUDY & PUBLIC RELATION PROGRAMS

CASHEW HAS A PERCEPTION AS AN INDULGENCE AND SNACK FOOD.

19.1 Cashew was introduced as a snack. It is also a food. Over a period of time the dominant use has been in snacks and the behaviour of the market is that of snacks. It has been a popular item as an indulgence. It is perceived as "costly" and "expensive". It is high in price on retail, on the shelves in supermarkets and chain stores.

19.2 Cashew needs to be broad based in consumption and should be considered as good "Value". This has to be carried along with a perception that it is food and worth having in small quantities regularly.

19.3 The perception on snack need not change and this will grow steadily. It can be expanded to more areas where people who can afford to buy can have access to it.

19.4 Growth in production and availability of kernels will enable marketing it to more segments and target groups. There is always a limit to snack consumption in a particular area.

19.5 Cashew consumption has been mainly in OECD countries. Most of the population is ageing and hence a risk factor exists of decline in consumption as snack. On the other hand, an ageing population can be targeted as a group for health food.

REQUIRES TO BE CHANGED TO REGULAR CONSUMPTION AS A HEALTHY FOOD.

19.6 Consumers over the world are increasingly concerned about health aspects of the food they eat. Fortunately, cashew is in the food pyramid positively and in the Mediterranean diet it is recommended to be consumed daily.

19.7 "A few cashews a day" should be the slogan for cashew consumption in the coming decade. This implies purchases will be regular and considered as a need.

19.8 When a food is healthy, there is more justification. Food constitutes only about 13% of adult expenditure in advanced countries. This implies that in middle and higher income groups, cashew can be more frequently consumed as a snack.

19.9 Consumption growth is always steady in food. The affordability criteria also get fulfilled. The key issue is convincing the customer to adopt cashew as an alternative or an addition to diets.

19.10 Cashew is high in fat, 600 calories for 100g. This makes consumers wary that they will add weight. This is why it must be a substitute for other high calorie foods than an addition to diet for those who think so.

19.11 There is sufficiently large population of moderates who have no perception of weight increase risks and those who can afford cashews. They do not buy it because cashews are deemed expensive, is not available to them easily or simply an inertia that they do not vote to buy cashews.

19.12 Cashews can be developed into a habit if people are made to realize its immense value.

STUDY AND LITERATURE DEVELOPED OVER THE LAST FIFTEEN YEARS IS SUFFICIENT THOUGH NOT SUBSTANTIAL.

19.13 Study and literature developed over last two decades is sufficient to embark on an education program. However, most are not specific to cashews but talk generically about "tree nuts" or dried fruits.

19.14 The nutritional analysis is widespread and the most reliable data comes from the US department of Agriculture. It's called the Nutritional Reference Database and has annual releases. (Sample in **Appendix 11**)

19.15 CEPCI has released various news items on nutrition's and gets data frequently. It has been a valuable source of information for trade. This needs to be continued.

19.16 There is substantial work yet to be done on collection of data as well as dissemination. Hypothesis can be developed based on existing data on how cashews can be beneficial to the human being when small quantities are consumed very day.

PUBLIC ATTENTION NEEDS TO BE GENERATED.

19.17 Public attention is necessary for the subject of cashew. Nutrition is a good story.

19.18 There should be periodic and systematic release of news on cashew and nutrition.

19.19 Related subjects also evince interest.

19.20 CEPCI in association with global stakeholders should increase the accumulation of data and information on nutrition and effects and disseminate it to a larger audience.

VARIOUS OPTIONS HAVE BEEN DISCUSSED OVER LAST 9 YEARS

19.21 Various options have been discussed at CEPCI over the last years when Nutrition became plausible solutions.

19.22 As far back as 1992, 17 years ago this topic was brought up at the AFI meeting. Ever since then, emphasis on generic marketing has centered on nutrition.

19.23 This has improved later when CEPCI participated in the Old ways Symposium in San Francisco and the first document produced by CEPCI prepared by Dr C R Soman got global recognition.

19.24 Studies by Ms Sampada Zantye (**Appendix 12**) have created a new direction for supporting cashew in dietary medicine. Her presentation at Kaju India has broken many wrong notions on cashew consumption and has given a wide lead to the potential for expanding the coverage for cashew consumption as a necessity.

19.25 CEPCI has prepared and submitted an ambitious project to Ministry of Commerce on nutrition study and research.

19.26 CEPCI needs to take measured and positive steps towards a clear policy on the propagation of cashew nutrition.

PUBLIC RELATIONS

19.27 Nutrition information is newsworthy. Public relations should be consciously practiced and is more worthwhile than advertisement and publicity.

19.28 Public relations including credible newspaper articles, mention in public speeches, making available the data to personalities who will then convey it in public and private life and making a conscious attempt to convey the benefits of cashew.

19.29 CEPCI can have Regional Workshops in prominent consumption areas, particularly where people congregate and at trade fairs.

19.30 Encouraging the use of specialty cashews as gifts to dignitaries and conveying cashews through diplomacy can help enhance its image.

19.31 Cashews can be projected to media that it is worthwhile for their readers to know the good thing about cashew.

ADVERTISEMENT AND PUBLICITY

19.32 Advertisement and publicity can help when profitability in any part of the value chain can afford it and get perceived as well as direct benefits.

19.33 The Planters ad (available on Youtube) has been considered as an attractive one and rated very highly. It is a fact that it drew attention to the product as well as the brand.

19.34 Similarly, publicity events can get generated at various areas. In trade fairs, special techniques exist for drawing public's attention. These are allowed by the Fair authorities.

19.35 Publicity also will mean public recollection. This will enable sustaining the selling and consumption effort.

19.36 There is skepticism for advertisement and publicity in any form for cashew. The common notion is "why advertise"? Cashews will always sell by themselves.

19.37 This needs to be debated with stakeholders and target groups as to what form of advertisement or publicity will help generate more demand for cashew kernels.

19.38 The question is who will bear the cost? Obviously, those who advertise expect people to buy their product. Advertisement can rarely be done by a common pool. As large organizations are limited in cashew in India, it is obviously difficult to canvas for advertisement and publications.

KINDS OF PROMOTIONS

19.39 There are number of promotions that can occur. Generic promotion occurs when the cashew industry gets together and makes a common presentation to the potential consumers.

19.40 The KCMA experimented with a Cashew Festival. At a small cost, enormous publicity was available and participants benefited from the same.

19.41 Cashew festivals can be practiced where India has a dominant market share i.e. 90% and above. This will benefit participants in that geographical area.

19.42 Other popular promotions have uncertain value. Still, one can focus on some promotions in promising areas.

19.43 This requires co-operation from all stakeholders: traders, salters, distributors and stores.

19.44 The Brand Equity Fund and promotion funds of Government of India are hardly tapped as the manufacturer is uncertain where he is selling next. The trade is focusing on trading than marketing.

19.45 There are many analogies for promotions. These have to be studied and the appropriate strategy must be adopted.

19.46 The industry is a long way in organizing promotions. At least, one can prepare for the future when a large production base will create a thriving industry where marketing becomes a core function.

VALUE IMPROVEMENT

19.47 Value improvements must be a core program along with marketing and promotion. Otherwise, promotion expenditure may prove futile

19.48 Value for money, is a conservative consumer's mantra. How can we improve value without increasing cost?

19.49 How can we make the consumer feel that he his getting higher value at the same price?

19.50 CEPCI must benchmark values to prices and create a matrix for various participants to convey value proposition to the trade and consumers.

DRIVERS FOR CHANGE

19.51 There will be many change envisaged. Changes in perception and recognition of the product are most important

19.52 CEPCI needs to identify drivers for change. Which organization and individuals should be persuaded to be drivers for change?

19.53 CEPCI should be a human change institution. How can we transform the lives of few million stakeholders across the world? Could there be 500 million consumers of cashews? How can it be a billion if a few cashewnuts can find their way into their mouths through confectionary and culinary applications?

19.54 Cashews certainly have the appeal that will make people feel the change. CEPCI should make and enhance this appeal for cashews.

EXECUTIVE SUMMARY

- Cashew has a perception as an indulgence and snack food.
- Requires to be changed to regular consumption as a healthy food.
- Study and literature developed over the last fifteen years is sufficient though not substantial.
- Public attention needs to be generated.
- Various options have been discussed over last 9 years.
- Public Relations.
- Advertisement and Publicity.
- Kinds of promotions.
- Value improvement.
- Drivers for change.

CHAPTER - 20

MULTI-LATERAL INITIATIVES

CASHEW HAS ATTRACTED MULTILATERAL INTEREST – FAO, WORLD BANK, UN ECE, ISO

20.1 Cashew business grew on the bilateral interest between US importers in the 1920's. US citizens took active interest in promoting this exotic tropical nut and introduced it in the city of New York.

20.2 The US initiative was not merely to promote the product, but assisted Indian manufacturers to innovate sufficiently to make the product suited for the transportation of cashews.

20.3 The consumption of cashews was introduced and developed into a snack by roasting it for ready use which was attractive to the US citizen at that time.

20.4 US were the majority trading partner for cashew for a long time. India developed the demand for products in over 45 countries by 1960 and over 75 countries when it was holding 99% of the world market in 1975.

20.5 India was also importing raw cashew from every available source in the world. Indian traders established trading outposts in Mozambique, Tanzania and Kenya which supplied the bulk of the raw cashews.

20.6 Indian cashew trade improved due to self-governed standards. Eventually, it came under every regulation that the State and Central Governments thought it fit to be brought in.

20.7 International bilateral relations on cashews have mostly centered on customer driven initiatives.

In the USA, an Association named the Association for Food Industry became a valuable overseas associate for the Indian cashew industry. This association was working closely with US Food importers and the cashew importers were an important team within this Association.

20.8 Bilateral relations were strengthened with this association as all prominent Indian exporters were members of AFI.

MULTILATERAL INTEREST – PRODUCING NATIONS – MANUFACTURING NATIONS – CONSUMING NATIONS.

20.9 AFI became the first body to promote multilateral initiatives when it invited India, Brazil and Mozambique to New York in 1992 for an Industry based agenda. This was considered a success and triggered further bilateral and multilateral initiatives.

20.10 Another important associate was the CENTA, an UK based organization. All UK and European importers have followed the CENTA regulation.

20.11 Recently, India developed good relation with the Japan Nut Association and have held several bilateral discussions.

20.12 There have been several moves to have an international association for cashews since 1992.

20.13 Cashew is a product which is global in nature. It is produced in over 30 tropical countries and consumed in over 150 nations.

20.14 It therefore needs attention of world multilateral bodies as attention has not been given to its merits and potential.

20.15 It is now a truly global product and therefore multilateral initiatives must be given a fillip.

20.16 Cashews originate from the ten poorest nations in the world. They are converted in the developing countries and consumed in the richest nations.

20.17 Cashews traverse widely and therefore have a maritime constituency.

20.18 The cashew value chain is looking unique and division of labour has expanded the cashew economy beyond producing nations. There is abundant scope for initiatives in many disciplines in the multilateral area.

WORLD CITIZENS ARE NEEDED FOR CASHEW AS IT HAS GLOBAL IMPLICATIONS.

20.19 Global co-operation will help sustain growth of cashews and bring high benefits at relatively lower cost. Multilateral initiatives in other produce have disproportionately higher state attention and achieve lower benefits at high costs.

MULTILATERAL INITIATIVES HAVE FAR REACHING AND SUSTAINABLE ADVANTAGE.

20.20 Cashew Industry Associations globally need to initiate studies on comparative initiatives in other produce which has helped respective crops.

Cereals have the widest exposure in the world followed by beverage crops like coffee and cocoa. The International Pepper initiative is commendable. In industrial and mineral products there is an abundance of multilateral activity.

20.21 Examples of international organizations are:

- ☞ International Coffee Organization
- ☞ International Cocoa Organization
- ☞ International Pepper Community
- ☞ International Jute Organization

20.22 There is a case for United Nations agencies to get involved in cashew projects. Recently, the UNIDO India office was initiating a project to study the production of ethanol out of cashew apple. Such initiatives will have long term benefits.

20.23 There is a case for FAO to be more involved in cashew production globally. This will take the crop to levels of 4 million metric tons of raw cashews which the world can sustain in production and consumption.

20.24 There is a case for making global standards for RCN as a traded agricultural produce which requires the specialization of world bodies.

20.25 The kernel standards of India, Brazil, Vietnam, AFI, ISO and UNECE need to be harmonized. There is a need for a re-look at kernel standards considering the major shifts in consumption already taken place and envisaged.

20.26 The application of quality standards ISO 9001:2008 and ISO 22000 as well as HACCP need to be studied in depth for harmonization.

20.27 The regulations in Sanitary and phyto-sanitary requirements, the US Bio Terrorism law and various regulations on important areas concerning cashews need to be studied.

20.28 International commercial law needs to be reviewed in the context of the cashew value chain.

20.29 The development of standards and specifications need both buyer and sellers to get together. The idea is to develop a product fit for use of the consumer. This requires mediation by a strong, just and unbiased third party in association with skilled and technical persons.

20.30 Logistics involves dealing with oligopolies that carry the cargo of both raw cashews and cashew kernels across the world. Cashews travel an estimated 12,000 miles from production to consumption.

20.31 Trade practices and commercial law also need to be reviewed between producers and consumer states.

20.32 Importing country requirements especially in USA, EUROPE, Japan, Australia and other countries who keep a watch on food imports must be monitored closely by exporting nations. These regulations cannot be ignored. When followed they must serve the purpose. AFI for instance keeps a watch and lobbies for unwarranted legislation. Exporting countries need to do the same with their Governments when importing countries impose unreasonable restrictions.

PROPOSALS : WORLD CASHEW ASSOCIATION, WORLD CASHEW ORGANISATION.

20.33 AFI, United States has proposed a Cashew Council with all producing nations or India exclusively as the case maybe to specifically promote cashews in the United States. It has also proposed that an India specific campaign can get addressed within the proposed scheme.

THE ROLE OF TRADE ASSOCIATIONS AND COLLECTIVE BODIES.

Trade associations representing all or most cluster participants can command greater attention and achieve grater influence than can individual members, and an association or collective body (for example, a joint research centre or testing laboratory) creates a vehicle for cost sharing.

- *providing a neutral forum for identifying common needs, constraints and opportunities,*
- *focal points for efforts to address them*
- *lead in organizing national and international fairs and delegations,*
- *training programs in conjunction with local institutions,*
- *manage purchasing consortia,*
- *establish university based research programs and testing facilities,*
- *collect cluster related information,*
- *offer forums on common managerial problems,*
- *investigate solutions*
- *Pursue many other common interests.*

20.33 Promotion of Indian Cashews
Generic vs. India-Specific - **Appendix : 13**

20.34 The recent memorandum made for a World Cashew Organization mentions merit here.

20.35 Noble as the objectives are, the initiative could not be launched for constraints and paucity of resource allocation.

20.36 The action plan envisaged that India should take a lead in the hosting and running of the Organization.

20.37 The action plan is to initially fund this exercise to the point of establishing the organization and again fund that organization to meet objectives.

20.38 There are several constraints in hosting this organization.

20.39 Initially the perception of the organization must be confirmed. Is it an association of world manufacturers of cashews? Or a world organization for cashew?

GOVEFRNMENTS NEED TO BE INVOLVED.

20.40 If it is the latter, then Governments need to be involved even to a limited extent. All multilateral efforts stem from Government interventions.

20.41 The consensus must emerge: a Government sponsored World Cashew Organization.

20.42 A trade body sponsored World cashew Association.

20.43 The former requires initial persuasion with Governments but will have Government resources in the long run.

20.44 The second cannot and will not take stakeholder issues strongly as it will be rooted in the protection and promotion of the manufacturing sector.

20.45 The case exists for both. Focus is to take the movement forward in small steps.

20.46 A World Cashew Organization with nation promoters can be generated on the basis of the functions laid down under the MOU.

20.47 Difficulties are associated with promoting both. These need to be converted into an agenda.

20.48 World cashew Association will have costs but may serve limited purposes.

20.49 World Cashew Organization will help cashew farmers globally.

20.50 There are valid reasons why the World Cashew Organization currently envisaged is not moving forward. They are :

a) *Reliance on the voluntary model and not on purposeful action*
b) *The perception that it is an association of cashew manufacturers with a limited agenda*
c) *The necessity of official, authority and Government support for the agenda*
d) *The paucity of resources financial, people, physical, intellectual and knowledge that rapidly propel international initiatives*

e) *The uncertainty of the organization's potential for achievement*
f) *The necessity for leadership in essence that requires follower ship*
g) *The projection of the benefits of the objects gained forms a world association.*

20.51 The way forward for the international organization is limited due to the fact that India has been offered the role of taking it forward. There are several limitations that make it difficult for an international organization in India.

BASIC RESEARCH INITIATIVES REQUIRE MULTILATERAL SUPPORT.

20.52 It is better to have the international organization in a host country like Singapore or London which offer a neutral ground for all nations to meet and engage themselves in the dialogue, debate and discussion needed to take forward.

20.53 The International Nut Council has offered all assistance to host the World Cashew Organization within its fold till it has the potential to have its own Secretariat and global reach. This need to be taken in all seriousness and a working arrangement with the INC should be the first step in this direction.

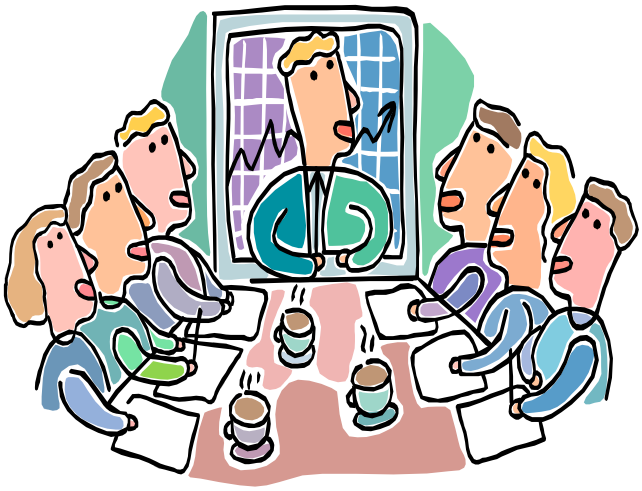
20.54 The second step is that a large number of stakeholders must gather in one place to be resolute in this regard. It is ideal if it is done in the SIAL fair as all the players in cashew converge in SIAL.

If an international Conference on Cashew is held simultaneous to the fair, it is the first such kind in the consuming country and is bound to attract global attention.

20.55 A well planned and structured conference can then deliberate on this and announce the formation and birth of the World Cashew Organization.

20.56 This should be preceded by at least 7 regional workshops. Three in origin countries and three in consuming countries and one concluding international workshop which take the critiques and positions for the International Conference to adopt.

20.57 The CEPCI must brainstorm within itself the role of the CEPCI and the Indian industry in the international organization and take positive steps in the meeting the resource requirements and overcoming the constraints that are presently containing the proposal from going forward.



EXECUTIVE SUMMARY

- Cashew has attracted multilateral interest – FAO, World Bank, UN ECE, ISO.

- Multilateral interest - producing nations – manufacturing nations – consuming nations.

- World citizens are needed for cashew as it has global implications.

- Multilateral initiatives have far reaching and sustainable advantage.

- Proposals: World Cashew Association, World Cashew Organization.

- Governments need to be involved.

- Basic Research Initiatives require multilateral support.

Table : 24

U.S. Imports of Cashews from Major Exporting Countries (KG) (2000-2005)

	2000	2001	2002	2003	2004	2005
India	43,209,856	48,826,728	55,010,571	4,689,4847	58,412,964	51,642,822
Brazil	24,444,612	20,902,173	20,059,901	26,297,298	29,799,404	24,990,745
Vietnam	10,119,205	12,899,160	20,158,058	27,979,844	41,272,650	34,276,577
Indonesia	106,2174	810,050	492,771	517,373	681,651	1,486,512
All Others	3,659,389	1,334,939	1,586,109	1,402,054	1,488,085	2,075,828
Total	82,495,236	84,773,050	97,307,410	103,091,416	131,654,754	114,472,484

Source: U.S. Department of Commerce

Table : 25

WORLD VIEW DATA ON CASHEW								
						DRAFT		
SL. NO	ORIGIN	CROP IN MT	YIELD / BAG IN LBS	KGS	TOTAL YIELD IN 50 IBS CTNS	CONSUMPTION		MT
						DESTINATION	50 LBS C/S	
1	India	375000	42	20.53	3,937,500	USA	4700000	106596
2	Vietnam	375000	42	20.53	3,937,500	India	4500000	102060
3	Ivory Coast	350000	36.5	17.84	3,193,750	Europe	4000000	90720
4	Benin	80000	39	19.06	780,000	Australia	600000	13608
5	Nigeria	40000	34	16.62	340,000	Japan	250000	5670
6	Bissau	110000	43	21.02	1,182,500	M East	1200000	27216
7	Senegal	15000	44	21.51	165,000	China	1000000	22680
8	Ghana	30000	36	17.60	270,000	Others	2500000	56700
9	Other W Africa	30000	34.4	16.81	258,000			
10	Indonesia	75000	44	21.51	825,000			
11	Brazil	300000	38	18.57	2,850,000			
12	Tanzania	100000	42	20.53	1,050,000			
13	Mozambique	45000	35	17.11	393,750			
14	Madagascar	10000	34	16.62	85,000			
15	Kenya	15000	34	16.62	127,500			
16	Other	40000	34	16.62	340,000			
TOTAL		**1990000**		**299.07**	**19,735,500**			**425250**

Table : 26

Trends in Global Production (1961-2000)

Country	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Africa										
Tanzania	50000	70000	50000	71000	76000	83200	83800	92500	95700	107445
Mozambique	107000	108000	149000	156000	136000	119600	101000	185900	154200	184000
Nigeria	7000	14000	15000	19000	22000	23000	24000	25000	25000	25000
Others	8050	12150	12250	14650	14350	15460	17582	14605	13510	29327
Total	172050	204150	226250	260650	248350	241260	226382	318005	288410	345772
% of world	59.8	62.8	64.8	68.0	64.3	63.3	58.4	65.8	63.7	67.5
Asia										
India	85000	88000	92000	95000	100000	103818	114182	118542	120438	123319
Indonesia										
Vietnam	700	700	700	700	700	2100	2100	2100	2100	2100
Others	10340	9820	7690	9610	15600	13870	12950	13180	10440	11620
Total	96040	98520	100390	105310	116300	119788	129232	133822	132978	137039
% of world	33.4	30.3	28.8	27.5	30.1	31.4	33.3	27.7	29.4	26.8
South America										
Brazil	9670	11987	13621	9643	13789	13677	24181	23683	23443	20309
Others	2275	2238	2327	2334	2389	2427	2471	2466	2510	2504
Total	11945	14225	15948	11977	16178	16104	26652	26149	25953	22813
% of world	4.2	4.4	4.6	3.1	4.2	4.2	6.9	5.4	5.7	4.5
World Total	287535	324895	349088	383437	386303	381318	387776	483538	452676	511939

Country	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Africa										
Tanzania	126409	125559	145080	121704	115840	83637	93285	68478	57128	41416
Mozambique	202000	200000	240000	213400	188000	122000	91500	61000	66000	71100
Nigeria	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
Others	26450	19356	22658	23747	29195	35660	44160	45500	27560	24986
Total	**379859**	**369915**	**432738**	**383851**	**358035**	**266297**	**253945**	**199978**	**175688**	**162502**
% of world	68.0	66.3	69.3	65.6	63.5	52.5	48.9	40.9	38.4	35.0
Asia										
India	127223	130000	129766	135451	144254	161536	162457	165323	171817	180266
Indonesia					9122	7176	7370	8799	9764	9074
Vietnam	3500	3500	3500	3500	3500	4900	4900	4900	4900	5600
Others	12100	11790	14060	21170	22140	23860	23650	25525	23665	23980
Total	**142823**	**145290**	**147326**	**160121**	**179016**	**197472**	**198377**	**204547**	**210146**	**218920**
% of world	25.6	26.0	23.6	27.4	31.8	38.9	38.2	41.9	45.9	47.2
South America										
Brazil	28602	35000	36936	34901	20490	36800	60000	77000	65000	75000
Others	2548	2543	2587	2650	2512	2522	2552	2892	3068	3394
Total	**31150**	**37543**	**39523**	**37551**	**23002**	**39322**	**62552**	**79892**	**68068**	**78394**
% of world	5.6	6.7	6.3	6.4	4.1	7.7	12.0	16.3	14.9	16.9
World Total	**558846**	**558142**	**624348**	**585246**	**563795**	**507544**	**519629**	**488657**	**457696**	**464215**

Country	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Africa										
Tanzania	64000	43200	33070	38100	32750	19200	18490	22470	19260	17060
Mozambique	71100	61000	35600	20300	25000	30000	35000	45000	50225	22524
Nigeria	25000	25000	25000	25000	25000	25000	25000	25000	25000	30000
Others	26754	25584	21800	39600	32045	38794	39927	44823	63901	56161
Total	**186854**	**154784**	**115470**	**123000**	**114795**	**112994**	**118417**	**137293**	**158386**	**125745**
% of world	37.8	31.9	25.0	26.0	22.0	20.7	22.6	22.6	24.5	20.7

Asia										
India	185250	195760	201440	210870	221330	234480	245580	260260	274330	285590
Indonesia	11444	16830	18047	19411	21114	22515	24042	23305	27990	29907
Vietnam	6500	7000	7700	8500	9000	10000	12000	8000	8500	26000
Others	22900	23827	22970	30640	31560	36156	39210	41302	34897	32930
Total	**226094**	**243417**	**250157**	**269421**	**283004**	**303151**	**320832**	**332867**	**345717**	**374427**
% of world	45.8	50.1	54.1	56.9	54.3	55.6	61.2	54.7	53.4	61.7

South America										
Brazil	74000	80000	90000	74000	115000	120000	75000	128080	136130	99367
Others	3404	3108	3520	3105	4226	4339	4202	4179	3655	3546
Total	**77404**	**83108**	**93520**	**77105**	**119226**	**124339**	**79202**	**132259**	**139785**	**102913**
% of world	15.7	17.1	20.2	16.3	22.9	22.8	15.1	21.7	21.6	17.0
World Total	**494167**	**485398**	**462719**	**473435**	**520973**	**544866**	**523874**	**608533**	**647665**	**606681**

Country	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Africa										
Tanzania	17060	19260	22470	18490	19200	32750	38100	33070	43200	64000
Mozambique	22524	50225	45000	35000	30000	25000	20300	35600	61000	71100
Nigeria	30000	25000	25000	25000	25000	25000	25000	25000	25000	25000
Others	56161	63901	44823	39927	38794	32045	39600	21800	25584	26754
Total	**125745**	**158386**	**137293**	**118417**	**112994**	**114795**	**123000**	**115470**	**154784**	**186854**
% of world	20.7	24.5	22.6	22.6	20.7	22.0	26.0	25.0	31.9	37.8
Asia										
India	285590	274330	260260	245580	234480	221330	210870	201440	195760	185250
Indonesia	29907	27990	23305	24042	22515	21114	19411	18047	16830	11444
Vietnam	26000	8500	8000	12000	10000	9000	8500	7700	7000	6500
Others	32930	34897	41302	39210	36156	31560	30640	22970	23827	22900
Total	**374427**	**345717**	**332867**	**320832**	**303151**	**283004**	**269421**	**250157**	**243417**	**226094**
% of world	61.7	53.4	54.7	61.2	55.6	54.3	56.9	54.1	50.1	45.8
South America										
Brazil	99367	136130	128080	75000	120000	115000	74000	90000	80000	74000
Others	3546	3655	4179	4202	4339	4226	3105	3520	3108	3404
Total	**102913**	**139785**	**132259**	**79202**	**124339**	**119226**	**77105**	**93520**	**83108**	**77404**
% of world	17.0	21.6	21.7	15.1	22.8	22.9	16.3	20.2	17.1	15.7
World Total	**606681**	**647665**	**608533**	**523874**	**544866**	**520973**	**473435**	**462719**	**485398**	**494167**

Source : kcma/jacintha

CHAPTER - 21

AWARENESS PROGRAMS FOR INDUSTRY & STAKE HOLDERS

IMPORTANCE OF CONVERGENCE

21.1 A horticultural produce when traded sufficiently largely enough becomes a "commodity". From the time it is harvested up to various stages of process it traverses till it becomes an object of consumption.

21.2 The period from production to consumption has various limitations on account of nature of the product. All horticultural produce can be considered to be perishable over a period of time and certainly deteriorate after the period determined.

21.3 Each individual in the value chain will act in best interests personally when handling the produce. Therefore, it becomes necessary that producer, manufacturer, traders, service providers, importers, users and distribution chain take an interest in the product they handle for improving the scope of its consumption.

21.4 Increase in consumption triggers an increase in production. Increase in production happens when the economic value of the produce is beneficial to producer over the long run.

21.5 They require converging even if they are in the state of competition or rivalry. Producers between themselves hardly are rivals. Competition exists amongst traders and manufacturers giving freedom of choice both to suppliers and customers.

21.6 Customers do need to have access to the product and also freedom of choice with regard to sourcing of supply, affordability and economy of purchase to exercise their willingness.

21.7 All stakeholders need to have data, information access to knowledge and opportunity to get more data, information and knowledge on the product.

21.8 This convergence can be exercised through various means and CEPCI in active collaboration of the stakeholders need to increase the exposure of customers and citizens to the product. Nature of programs: Congress, Convention, Seminars, Workshops, Conferences and Conclaves.

21.9 The need to meet and have communion amongst various stakeholders is a modern development in the free market economy.

21.10 This is in contrast to a century ago when interaction was minimal.

21.11 The CEPCI in association with other organizations and support as available from Government should organize the following and actively participate in such programs with cashew as the prime subject.

21.12 Programs can be in the form of Congresses, Conventions, Seminars, Workshops, Conference and Conclaves. These have to be generated on various topics and by the Committee of Admin, CEPCI.

21.13 An approach to each program has to be done professionally and involve particular interests, subject matter specialists and stakeholders.

NORMAL PROMOTION METHODS: PARTICIPATION IN FAIRS

21.14 CEPCI has been participating in fairs for over forty years. An evaluation of the benefits in participation needs to be done.

21.15 By and large it can be said that the participation has served the purpose. The results cannot be described tangibly. However, CEPCI has been a pioneer and continues to participate.

21.16 This needs to be sustained on a continuous basis particularly in prime food fairs like SIAL and ANUGA

21.17 It would be advisable to plan the programs described above in the sidelines of the fair. This will ensure attendance and will be possible to make cashews attractive to a larger audience.

RECOMMENDATIONS NEED TO BE IMPLEMENTED

21.18 CEPCI and members of CEPCI have access to a large number of studies and investigative reports. Consultancy and advisory reports from Government and authorities are also available.

21.19 There are various recommendations given by august bodies like the Planning Commission, Agencies under the Ministries and the like. Many learned individuals give recommendations which are vital.

21.20 They need to be followed. Research reports commissioned by the CEPCI itself have valuable studies and methods to implement the same.

21.21 CEPCI must devise a way of getting the recommendations which are approved by the Committee or the body implemented by Industry.

BASIC RESEARCH PROGRAMS FOR INDUSTRY

21.22 The NAIP program is an example of how basic and applied research can be made productive to Industry.

21.23 The KCMA has a good industry institute relationship with the Nation's Premier Cashew Research agency, the NRCC and the University of Agricultural Sciences, Ullal Regional Research Centre on Cashew.

21.24 KCMA has provided tremendous inputs into the research program for an industry perspective.

21.25 CEPCI needs to commission the perspective on basic and applied research cashew.

21.26 This needs to be done at the All India level through the Ministry of Commerce to the Ministry of Agriculture and interacting with national agencies.

21.27 It also needs to interact at regional level and State level for specific regional and local research interests.

21.28 The research areas are to be divided into

1) *Basic research for cashewnut development: production, productivity and quality suitable for consumers and industry*.

2) *Applied research on problems related to the produce for industrial production or characteristics and quality affecting the consumer*.

3) *Basic research in manufacturing processes*.

4) *Applied research in manufacturing processes, quality development, nutrition, packaging and product development.*

21.29 Minimum researches in cashew have had high multiplier benefits. Therefore, science and technology development should be the corner stone for industry development over next 30 years..

21.30 Skill developments within industry and those who are employed in it are complementary to the above.

21.31 A skill gap matrix can be devised by CEPCI for the industry so that the gaps can be identified.

21.32 CEPCI should draft a basic approach towards development of mandates for the Scientific and Research Community on a holistic basis.

INDUSTRY INSTITUTE INTERACTION

21.33 As an Association representing the national interests on the cashew industry intended for exports, CEPCI needs to develop industry institute interaction.

21.34 India has rich national resources in its various institutions: Central, State, Universities and other National and International agencies.

21.35 The interaction between industry and institutes has been heavily emphasized as Central and State Governments want their agencies to take up research and study programs that are relevant to a large section of the population.

21.36 CEPCI needs to devise a program where it can have systematic interaction with institutes to encourage institute participation in requirements of the industry and also provide mandates for the institutes to act on.

21.37 The dialogue and discussion will pave the way of enriching and enlarging the cashew economy in an emerging situation where division of labour, specialization as well as extensive use of knowledge is to be practiced.

STATE, REGIONAL, NATIONAL AND INTERNATIONAL PROGRAMS

21.38 CEPCI must participate actively in Regional, National and International programs which are relevant to the development of cashew.

21.39 Such programs are currently large in number. The resource allocation for participation by industry must be viewed positively and with a clear perspective and idea on how participation will benefit the industry.

21.40 This is to coincide with the mission approach that needs to be done for cashewnut development as well as growth in manufacture and distribution.

21.41 A list of such programs and industry participation can be drawn up after detailed reviews for next five years.

IMPROVEMENT IN THE FLOW OF DATA AND INFORMATION

21.42 Data on cashew is sketchy and not accessible. The data collection needs to be improved on all aspects of cashew.

21.43 This covers from plantation to issues relating to consumption.

21.44 Enormous research is available in India and globally on cultivation and all aspects related to the cashew tree and produce.

21.45 There is hardly any research initiative in trade, industry, logistics, nutrition and marketing. Future research initiatives will rely on data and information built accurately from now onwards.

21.46 CEPCI must take the initiative to identify parameters for data collection and gathering of information, especially related to aspects on global marketing of cashew.

NEED FOR ACCURACY TO BE DEVELOPED OVER YEARS

21.47 One of the areas which the cashew industry is missing out is data and information on crop. There are no reliable estimates for the industry and the cashew value chain.

21.48 Efforts need to be initiated by CEPCI to have collective information in gathering crop information on its own.

21.49 This initiative whether done through Government assistance or funded from within, needs emphasis and a resolute direction.

21.50 Enormous losses occur because trade does not have reliable data. In fact, huge opportunities are available if industry is to get data to take informed decisions.

21.51 Strategy and planning need authentic data. Trade decisions are always instantaneous. The industry needs to take a perspective for 5 to 30 years as cashew is a tree crop.

21.52 The KCMA went through the process of having reliability in crop forecasting. Several models have been discussed.

21.53 It is imperative that a consistent approach be taken to make production estimates reliable and crop forecasting a reasonably good exercise.

21.54 Cashew is susceptible to climate and weather changes where the slightest change in weather for two or three days can cause wide variations in supply in a current crop.

21.55 Similar emphasis needs to be on export data and consumption information from different markets as growth needs to be tracked globally and all players need to have the information simultaneously.

21.56 CEPCI must resolve in principle to have data collection as a mandate and sufficient resources need to be built in to collect data and distribute it relevant to the trade as well as the generation of consumption of the produce.

BENEFITS OF GENERATING AWARENESS

21.57 Cashew is a horticultural tree crop. Its gestation is seven years and life of the tree is over 30 years.

21.58 A reasonable long term view is needed for crop development.

21.59 Consumption development should precede crop development. This will render the farm economy to be healthy and will give room for production and productivity targeting by the interested person, the farmer.

21.60 Awareness creation on beneficial aspects and risk management in cashew production will go a long way in promoting the crop.

21.61 CEPCI can be the body relied on for being authentic. This requires careful articulation of policy and practice and the active participation of Central and State Governments can be sought.

21.62 Creation of perception is required for a vision to turn into practicality. Statements will be viewed with skepticism, but this can be overcome by discussion, dialogue and debate. The essence is that awareness needs to be created for stakeholders to participate in the process that the Vision 2020 is aimed for. CEPCI must create the mechanism for generating information and knowledge and spread it to both producers and consumers of cashew.

21.63 The programs organized by the CEPCI, the World Cashew Congress and Kaju India have tremendous impact on the industry as well as stakeholders.

21.64 The KCMA along with GCMA and MCMA have organized four programs in the last seven years at Goa where there was a large convergence of interests.

21.65 All programs were cost effective and proved valuable to participants

21.66 The content, atmosphere and ability to organize are evident within the industry. This impulse must be channeled to effectiveness for the Vision to materialize and tangible gains will be evident to industry and stakeholders.

EXECUTIVE SUMMARY

- Importance of convergence.
- Nature of programs: Congress, Convention, Seminars, Workshops, Conferences and Conclaves.
- Normal promotion methods: Participation in Fairs.
- Nature of Recommendations.
- Basic Research Programs for Industry.
- Industry institute interaction.
- State, Regional, National and International programs.
- Improvement in the flow of data and information.
- Need for accuracy to be developed over years.
- Benefits of generating awareness.

CHAPTER - 22

WAY FORWARD

WAY FORWARD

Cashew has a gestation period of seven years from planting to peak yield. Hence, we can not hurry, rush or force this process. Therefore it is necessary for us to motivate the farmers to plant now and meet our needs for the requirements in 2020. When we foresee a trend for an increased global consumption, it is essential to plan for increased production in our nation.

India has the advantage of its entrepreneurial base for manufacture, the competence and knowledge of conversion and exports. Perseverance for four decades is now threatened.

The greatest revelation in recent discussions is that, Indian overall growth story has its impact on cashew itself. If domestic consumption growth outpaces the availability for exports, we will have no surplus for export by 2016 at the current production levels.

The conviction that cashew kernels can be sold and marketed easily without any negative impact on the cultivator is to be carried forward to coax and cajole more raw cashew out of available resource. This has been pointed out and now it calls for action.

The stakeholders in production are the farmers who intend to make cashew a viable growing proposition and the Government which looks at the interest of overall growth through the best possible utilization of land and resource.

Industry has to get involved in this process as a catalyst. As an important part of the value chain that converts the raw material into marketable product, a continuous interest needs to be focused on raw nut production.

The approach document gives enough material for action. The essential resolution for the CEPCI must be to endorse the proposals in the document and present it to the Commerce and Agriculture Ministries. Government action is a necessity.

The cashew industry must also apply itself for a catalytic role, if not move directly into strategic parts of the raw cashew production area. These can include support to farmers directly and indirectly, encourage quality and value in raw cashew nuts, provision of knowledge, participation in development of nurseries, investing and undertaking demonstration orchards, training and visit programmes to farmers and keeping a constant watch on the trading process that value is provided to farmers.

The approach document also emphasizes that there must be a sharp focus on the development areas. The State, District, Taluk and Village need to be scoped down. In this satellite imaging area and technologies that are accessible, one can easily map the potential areas in a matter of a year.

Involving agencies which are engaged in rural development activity will expedite the process. Cashew has not been projected as an economic and attractive crop as its demonstration effect is yet to be carried through.

The projections on volumes also depend on productivity. Rapid gains in productivity can be managed if the farmer were to be convinced to work on practices which provide a higher return for a minimal effort. This will then carry forward to higher inputs for higher output.

India is in sight for achieving a productivity of 4 mt per hectare. Aside from the argument, why the current farmer is not able to achieve productivity of 1 to 2 mt per hectare, one must not lose sight of increasing the potential.

Technology development and Research in all fields of cashew requires resource and direction. India has a rich scientific and research base in cashew. This sector needs to be encouraged with an enlarged mandate. The fruits of this knowledge will enable the farming sector to reach its maximum potential.

ONE CAN EXPECT THE VISION TO MATERIALIZE ONLY WHEN A CATALYST CAN ENERGIZE THE FARMING SECTOR.

Research initiatives in industry which have been minimal require an impetus. Application of technology is now being embarked on. The path for continual improvement is now open.

The focus needs to be on marketing to consumers who now consume cashews as well as those who now do not. Expanding the market need not wait for expansion in production. A continuous attempt to improve unit value realization through marketing will pave the way for liquidity to the produce and thus induce the producer to produce more.

The increase in productivity in manufacture and logistics over last fifteen years has been considerable. This calls for another round of productivity increases in manufacture as well as in the management of resource in the value chain.

THE APPROACH DOCUMENT MUST BE STUDIED AND REVISED TO DEVELOP THE CONVICTION TO CONVINCE.

CEPCI as an organization has a major role and responsibility. It alone can be a catalyst for a national and world role. This increases its scope for acting for its members who are exporters. CEPCI has been respected and called for a world role in cashew.

This calls for a budget and its essentiality. The approach document calls for CEPCI to act as the provider of a plan. The executors essentially are a host of stakeholders. The resource required by CEPCI is needed to be met by Government or providers of such resources within their mandates. This is needed in the interest of both producers and consumers beyond the interest of manufacturers and exporters.

This requires the addressing of competencies. Industry needs to invest. Essentially, the organization must be fired by desire - a desire that India must continue to be a dominant player of cashew in the world.

> "It is the simple desire to build a key customer benefit, and the imagination to envision the many ways in which that benefit can be delivered to customers, that drive the competence building process."
>
> *Hamel and Prahalad Competing for the Future Page: 218*

The approach document should enable the following in India:

- Visualize over 100000 Indian farmers, who own cashew orchards, to produce 2 metric tonnes of world class quality cashews per hectare.

- Building 120 manufacturing units in strategic sites that can deliver a capacity of 1.44 million metric tonnes for making world class export product.

- Building a value chain that enhances the well being of all stakeholders.

- Convince the world consumers that eating a few cashews a day is healthy.

"Research is not one effort – it is three: improvement, managed evolution and innovation. They are complementary but quite different."

"Improvement aims at making the already successful better."

"Managed evolution is the use of a new product, process or service to spawn an even newer product, process or service. Its motto is 'each successful new product is the stepping stone to the next one'."

"Innovation finally, is the systematic use of opportunity of changes in society, and the economy, in demographics and in technology."

"The key to effective research is to pursue improvement, managed evolution and innovation simultaneously though separately."

– *Prof Peter Drucker*

There are any number of 'techniques' and 'know how' on going about implementing the vision. The approach document has provided a combination of scenarios and action plans which are possible.

THE DOCUMENT IS OPEN FOR DETAILED STUDY, SCRUTINY AND IMPROVEMENT. THE VISION IS REALIZED ON ACTION.

APPENDIX - 1

കേരളം केरल KERALA S 521185

THIS AGREEMENT is made on the Twenty-second day of August, Two Thousand and Eight between The Cashew Export Promotion Council of India, 40/671, Chittoor Road, Ernakulam South, Kochi-682016, hereinafter called the CEPCI on the first part, The Karnataka Cashew Manufacturers Association, 205-208 "Suprabath", Kapikad, Bejai, Mangalore 575 004, hereinafter called "KCMA" on the second part and Shri G. Giridhar Prabhu, (Convener, VISION 2020-CEPCI), Proprietor, M/s. Achal Industries, Plot No. 190, Industrial Area, Baikampady, New Mangalore 575 011, hereinafter called "Convener" on the third part.

WHEREAS The CEPCI has released VISION 2020 Document (which is annexed here below) at the "KAJU INDIA" held on 15 –17 September 2006 at Kovalam, Trivandrum.

WHEREAS The Committee of Administration of the CEPCI has discussed in detail the potential of the cashew industry to grow and prosper on the basis of implementation of the objectives sought in VISION 2020

WHEREAS it has been found necessary to use expertise and knowledge base of the exporting community

WHEREAS The CEPCI has nominated Shri. G. Giridhar Prabhu as the Honorary Convener for this Vision plan to ensure that the goals set in are achieved within the time frame.

Page 1 of 4

DISTRICT STAMP DEPOT 25 JUL 2008 ERNAKULAM

WHEREAS the convener being from Mangalore and require necessary infrastructure and support to function, it has been found convenient and expedient to operate from the city of Mangalore which has institutions in its proximity

WHEREAS KCMA has offered its premises and assistance to house the CEPCI office for planning VISION 2020

WHEREAS the CEPCI has accepted the offer of KCMA, its office space, facilities and personnel for accommodating the office of the VISION 2020 office in Mangalore

And **WHEREAS** CEPCI has agreed to pay to KCMA a sum of Rs. 60,000/- (Rupees Sixty thousand only) per month from the date of commencement of the said Vision 2020 office at the premises of KCMA, as detailed below. Now this agreement witnesses as follows:

A. KCMA agrees to keep at the disposal of CEPCI, 340 sq. ft carpet (536 sq.ft built up) and the Conference Hall adjacent to its existing premises, fully furnished as required by the Convener for running the office of VISION 2020.

B. KCMA agrees to provide office structure of competent staff of whom at least one would be an Office of Executive Cadre, for the VISION 2020 office.

C. KCMA agrees to provide all infrastructure necessary for the proper functioning of the office, the necessary office equipments like computer, fax, telephones, Internet access, etc. and basic amenities like electricity, water, generator facility, etc.

D. All the above facilities will be extended to the vision 2020 office on the agreed terms of Rs. 60,000 per month. The CEPCI agrees to pay a sum of Rs. 60,000 (Rupees Sixty thousand only) towards monthly charges, inclusive of all taxes applicable, to KCMA in return for the services rendered mentioned in A to D above, as per the following break up:

Towards salary and allowances of the staff	: Rs. 28,000
Towards office maintenance expenses including Use of office equipment, etc.,	Rs. 8,000
Electricity, water, telephone, utilities and furnishing	Rs. 9,000
Other overheads	Rs. 15,000

(Electricity charges, water charges, telephone charges, etc. are included in the above.)

E. The charges shall be paid every month at the rate of Rs. 60,000/- per month within 10 days after the commencement of the functioning of the VISION 2020 office.

F. KCMA agrees that this office shall be exclusively utilized for implementing CEPC's programmes, envisaged in the VISION 2020 document

G. The office of the Convenor will directly communicate with the CEPCI on all the developments in implementing this action plan.

H. The Vision 2020 office will work with CEPCI for broad framework, strategy and modalities in implementing its goals. The budgetary allocation for implementing these actions will be provided by the CEPCI as per the prevailing norms and approvals of its Committee.

I. **Role of the Convenor**

(1) The Convenor shall provide a tangible road map to the CEPCI towards achieving the VISION 2020 goals, within one year of commencement of operation of the VISION 2020 office.

(2) The Convenor shall provide quarterly progress reports on action and developments.

J. The CEPCI shall reimburse all costs incurred by the Convener towards travel and accommodation undertaken, taking prior approval, in connection with the office.

K. This agreement shall be for a period of one year of commencement of operation of the VISION 2020 office.

L. The functioning of the VISION 2020 office shall be reviewed by CEPCI after one year of commencement of operation of the VISION 2020 office.

M. If it is decided to continue with the operation of VISION 2020 office, the parties can enter into a fresh agreement for a period as decided then.

Signed on the twenty-second day of August, Two Thousand and Eight.

First Party	**Second Party**	**Third Party**
K. SASI VARMA SECRETARY THE CASHEW EXPORT PROMOTION COUNCIL OF INDIA	THE KARNATAKA CASHEW MANUFACTURERS' ASSOCIATION	G GIRIDHAR PRABHU ACHAL INDUSTRIES MANGALORE CONVENER, VISION -2020, CEPCI

Witness1.	Witness 1	Witness 1
Name and address K.A Venkiteswaran Assistant Director Cashew EPC of India Chittoor Road, Ernakulam South, Kochi 682016	Name and address	Name and address
Witness 2	Witness 2	Witness 2
Name and address Sree Rajmohan Assistant Secretary Cashew EPC of India Chittoor Road, Ernakulam South, Kochi 682016	Name and address	Name and address

APPENDIX – 2

MEMORANDUM OF UNDERSTANDING FOR GLOBAL CO-OPERATION FOR PROMOTION OF CASHEWS

signed between

INDIA and VIETNAM

at Ho Chi Minh city on 25th January 2007

Cashew (Anacardium Occidentale) is a produce from an evergreen tropical tree. This produce is transformed into the edible kernel by an elaborate process and is made available to the consumers of the world through a well established value chain

Whereas BRAZIL is the nation where cashew originated and is now having a substantial production of rawcashew which is converted into edible kernels

Whereas INDIA is the nation where cashew is grown and which has been the pioneer in the discovery of edible cashew kernels and developed the same for international markets over the years and is now the largest producer, importer, processor and exporter of cashews in the world

Whereas VIETNAM has developed cashew as an important horticultural crop and has advanced rapidly in the last decade in production, processing and export of cashew kernels in the world

Whereas there are other important nations which produce cashews and export to other countries for processing

Whereas there are other nations which process cashews and produce edible kernels for the world market

Whereas out of mutual interest and in a spirit of co-operation, the various trade interests in these three countries have been interacting with each other on a regular basis

Whereas the product – cashews – requires greater attention of international organisations, multilateral institutions, Government authorities for the benefit of all stakeholders

Whereas the representatives of the trade & industry in various conferences, workshops, congresses and meetings have repeatedly expressed interest that the world cashew community should come together in a spirit of mutual co-operation for the healthy growth of the cashew business

Whereas the common ground is the promotion of cashews as product worthy of consumption in larger quantities by a wider section of world population than now

Whereas this common purpose needs an instrument and vehicle to perform the functions to achieve desired results

Whereas BRAZIL interests are currently represented by Association of Cashew Producers (SINDICAJU)

Whereas INDIA interests are currently represented by The Cashew Export Promotion Council of India (CEPCI)

Whereas VIETNAM interests are currently represented by Vietnam Cashew Association (VINACAS)

Whereas the these three organizations have now found it advantageous to meet on common ground and after discussions have come to the conclusion that cashew market can be enlarged to consume the increasing production by joint generic promotions for which ideas have been exchanged from time to time

Whereas at the meeting in Montreal on 14th May 2006, SINDICAJU & CEPCI along with a few other stakeholders agreed in principle on the need for a Global Cashew Body

Whereas at this meeting in Montreal on 14th May 2006, CEPCI was given the responsibility of coordinating with VINACAS to take things further

---

Now, CEPCI and VINACAS enter into this Memorandum of Understanding:

- THAT Brazil, India & Vietnam work jointly and through their Governments to induce international organisations like FAO, ITC-UNCTAD, UNIDO, CFC and other similar agencies to

focus on cashews with the objective of increasing consumption of cashews in all countries as a food of importance

- THAT they work towards promotion of cashews in new and expanding areas of indirect consumption (e.g. chocolate, confectionery & bakery products, food ingredient)
- THAT they work in a spirit of co-operation for research and development, primarily for studies in nutritional and health benefits AND product development
- THAT they enlist the support of the International Nuts & Dried Fruits Council which being specialised in the promotion of treenuts & dried fruits is the appropriate organization for the enhancement of cashew trade worldwide

This Memorandum of Understanding resolves to take the following actions by the three associations in achieving the aforesaid purposes

a. set up mechanism for regular exchange of information between the Associations in the following areas
   (i) crop prospects
   (ii) production, import and export figures
   (iii) reliable market information
   (iv) Government policies affecting the industry

b. set up a Committee to formulate uniform world-wide grades and specifications to avoid ambiguity and difficulties in international trade and implement these standards amongst the industry in respective countries

c. initiate studies on nutrition in cashews and have the results validated by credible international organisations

d. increase awareness about nutritional and health benefits of cashews to a larger audience by utilizing all available fora in effective manner

e. commence multilateral efforts to promote consumption of cashews for the healthy development of the World Cashew Economy

f. proceed with setting up of Global Cashew Body involving all stakeholders by nominating one person each from the three organizations to formulate the structure, constitution, objectives and activities of the Global Cashew Body

g. set up mechanism for contributing funds by the three organizations for the Global Cashew Body on an ongoing basis

h. work jointly & severally to get contributions of financial and other resources for the Global Cashew Body from their respective Governments and multilateral organizations like FAO, UNIDO, ITC-UNTCAD, CFC and other similar agencies that may be identified in the future

It is agreed between CEPCI & VINACAS that this MOU will be sent to SINDICAJU and upon receipt of their confirmation with amendments (if required) a tripartite MOU between SINDICAJU, CEPCI and VINACAS will be signed latest by April 30, 2007

Signed this 25th day of January 2007 at HO CHI MINH CITY, Vietnam

For and on behalf of CEPCI
Chairman

Walter D'Souza

For and on behalf of VINACAS
President

Dr. Pham Van Bien

APPENDIX - 3

POTENTIAL OF KARNATAKA

Potential for increasing Cashew Production in Karnataka from 40,000 MTs by 2005 to 1,50,000 MTs by 2021

INTRODUCTION :

Cashew was introduced to Coastal Karnataka in the sixteenth century as it spread from Cochin to Goa consequent to migration from Brazil through Portuguese seafarers. It became a wide spread homestead crop and extended to hills and valleys which had been targeted for p of soil erosion.

Its importance as a commercial crop advanced only in the 1980s when attention was provided through a World Bank Assistance Programme for expansion. The component provided for research and development also helped to devote resources to two important developments.

a) Package of Practices for better plantation management
b) Focus on hybridization for improving the productivity of cashew trees.

The programmes have been remarkably successful and we can proudly say that our Scientists have developed the best possible varieties for Indian conditions. Therefore, the potential for growth is now in our hands.

CASHEW INDUSTRY :

Cashew industry is a pioneer industry in the coastal area. The first organized factory for manufacture commenced in Mangalore and since then, Mangalore & Karnataka have been in the forefront for every positive development in the cashew manufacturing segment .

INSTITUTIONS :

Mangalore region is full of Institutions which have supported cashew development. The National Research for Cashew is located at Puttur ably supported by the CPCRI Station at Kasargod. The Cashew Research Station under UAS at Ullal has celebrated four decades of its existence with immense valuable contributions for research and development in cashew. The Banking institutions of our District have supported the capital requirements of the industry.

INDUSTRY – CURRENT STATUS :

The installed capacity of the cashew industry exceeds 1.00 lakh tones per annum out of an estimated of 1.2 million tones per annum for the Nation as a whole. It is to the credit of the Mangalore industry, that capacity utilization is now at the maximum. The industry absorbs entirely for the production of Karnataka at 40,000 MTs. In addition, it imports from other States like Kerala, Goa, Maharashtra, Andhra Pradesh & Orissa to the extent of about 30,000 MTs and the balance 30,000 MTs is being met from imports.

The nation imports over 430,000 MTs from 25 countries and exports 120,000 MTs of cashew kernels to over 65 countries.

MANUFACTURE ON THE GROWTH PATH :

The Mangalore industry has grown from an installed capacity of 8,000 MTs in 1970 to an installed capacity of 110,000 MTs in 2004. The capacity utilization is high at 95% of both daily and annual capacities. This is a record for India, as other States do not register capacity utilization on a consistent basis. There is no doubt left that capacity expansion will keep pace with growth in domestic output of Karnataka.

KEY FEATURES OF THE CASHEW PLANT :

The cashew plant is an evergreen tropical tree and has a life of 40 years. The gestation period is 5 to 7 years. The Xth Plan has provided impetus to cashew plantations by providing Rs. 70 crores over the Five year period spread over of cashew growing States.

The vision for cashew should therefore cover four more plan periods and the horizon should be spread over 40 years for the grower as well as for the manufacturer.

It is essential therefore to visualize the feature of cashew consumption in depth before we embark on ambitious programme.

For the agriculturists, a tree crop has a different attraction as well as constraint compared to annual crops. Therefore, the decision has to be considered whether the cashew farmer deserves to be elevated to the concept of an Orchard

Manager. Therefore the strategy for attracting, convincing and enabling the cashew farmer will have to be deliberated, discussed and made acceptable.

VISION :

Karnataka is the Cashew State of India. Karnataka has the potential to become the largest Cashew growing State of India with a target of 150,000 MTs in 2021. This is projected in the following table :

STATEMENT SHOWING CASHEW PRODUCTION POTENTIAL IN KARNATAKA - PROJECTIONS

YEAR	No. OF FARMERS	No. OF HECTARE PER FARMER	TOTAL HECTARES	TOTAL METRIC TONNES	
From Existing Area	**x,xxx**	**xx**	**92,000**		40,000

Productivity : 0.435 MT / Hectare

Targetted yield : 2000 kilos [2 MTs per Hectare]					
MATRIX FOR AREA EXPANSION					
YEAR	**No. OF FARMERS**	**No. OF HECTARE PER FARMER**	**TOTAL HECTARES**	**TOTAL METRIC TONNES**	
	200	20	4,000	8,000	
	1,000	10	10,000	20,000	
	2,000	5	10,000	20,000	
	3,000	2	6,000	12,000	
2015	6,200		30,000	60,000	
2015-2021	5,000		25,000	50,000	
From New Areas	1,200		60,000		110,000
2021	TOTAL :				**150,000**
Note : Total crop for State of Karnataka including replanting rejuvenation of all areas					

The following factors are identified for convincing ourselves that it is a feasible proposition.

The action plan in this regard should be a series of steps to determine the crucial factors that are influencing the farmers' decision. The farmer is the focal point and it is the farmers perspectives that to be taken into account.

BENEFITS FROM THE PROGRAMME :

150,000 MTs of production in 2021 even at current prices will amount to a total output of Rs. 525 crores. The value addition will be Rs. 200 crores or higher. Therefore, the total value of an output at the port can be in the region of Rs. 725 crores.

The net returns for farmers will be in the region of Rs. 350 crores and Rs. 175 crores will be the value of inputs and labour that go into the production effort.

The man days of work generated in factories will be 7.5 million woman days.

As the amount of input that goes into the manufacturing will provide jobs almost equivalent to 25% of the mandays generated directly.

The mandays generated at farm level, including the labour of the farmer would be almost the same at around 7 million mandays.

GOVERNMENT SUPPORT:

There is ample evidence that the crop is viable on its own without significant direct assistance from Government. The provisions made under the Xth Plan are sufficient to enthuse the farmer. Therefore, the key motivating factors in this case of cashew would be assured marketing and fair returns.

It is necessary to promote cashew cultivation with own capital, which will magnify the returns over a period of time. However, there is no problem in envisaging a cashew orchard as a viable project.

WHAT IS EXPECTED OF THE STATE:

The State Government and the Central Government has to play a role of a facilitator and integrator of the stakeholders for the cashew value chain. Whatever, the State provides as inputs is welcome and it should be of a high quality.

The essence of this project would be planning and communication while resources like land, labour, capital are organized by the farmer and essential skills provided by third parties who will be different associations, NGOs, State Institutions and independent service providers.

KEY POINTS IN FACILITATION

LAND AND TITLE :

The State can ensure under the Bhoomi project a bankable title for the proposed cashew cultivation.

VALIDATION OF BASE AGREEMENT :

When the Orchard Manager is interested only in the fruits of investment in labour and not interested in land ownership, the State must validate the Lease Agreement for the security of the lessee.

PROMOTION :

State must accept the potential of the crop and promote it.

RESEARCH & DEVELOPMENT :

State must direct and co-ordinate Research and Development on crop with a Forty year vision and coordinate activities in ICAR and State Universities of Agricultural Scientists. Pure research must be funded by State. Extension can be outsourced to NGOs, Co-operatives and Associations.

FISCAL LAWS AND TRANSPORTATION COSTS :

State must ensure stability is fiscal laws and confirm that regulatory laws do not burden the farmer on industry with more than necessary costs.

CO-ORDINATION AND FACILITIATION:

State must ensure that horticulture and industry departments work in unison with stated goals.

INDUSTRY :

Industry and Trade will assure off take from orchards and provide sustained liquidity to the farmers.

State grower & Industry must co-ordinate for sustained long term promotion of use of cashews amongst consumers.

VALUE CHAIN :

All members of Cashew Value Chain work towards quality, reduction of cost, value addition and continual improvement.

POTENTIAL ASSESSMENT :

The assessment for State Potential has been made into a matrix. This places Karnataka on a favourable rating from good to excellent. Each potential District, Taluka and Village must be mapped under the Matrix.

CONCLUSION :

The time is right for a concerted and motivated action for achieving higher production and productivity within the limited resources at our command. A passionate campaign is necessary to target 11,200 Karnataka farmers who will convert their available land into cashew orchards.

The benefits to the entire economy are so large that the State and its citizens cannot afford to ignore this sector. In given conditions, cashew provides the maximum yield for the smallest attention that one can give.

Cashew does not suffer from the major problems of other crops, that is, an uncertain market for marginal surpluses. Instead of dealing from crisis to crisis, the State should focus on opportunity by taking all the stakeholders in the value chain along with it towards a realizable goal.

The present aptitude for public-private sector partnership makes it possible for collaboration by our Association with the State and Central Governments to take this message to the farmers. This requires support in terms of necessary resources.

PREPARED BY: **G. GIRIDHAR PRABHU**

Past President - Karnataka Cashew Manufacturers' Association
Chairman - Golden Jubilee Projects Sub-Committee,
Member - National Steering Committee on Cashew,
Ministry of Agriculture, Government of India.

Date : **30.12.2004**

KARNATAKA CASHEW MANUFACTURERS ASSOCIATION
VISION 2021

KARNATAKA

✓**The Cashew State of India**

Raw Cashew Production

❖**Currently 40,000 Metric Tonnes**
❖**1,00,000 Metric Tonnes by 2016**
❖**Target 6200 Farmers 30,000 Hectares**
❖**150,000 Metric tonnes 2020 2021**
❖**60,000 Hectares 11,200 Farmers**

Focus Districts

Coastal Karnataka
•Eastern Uttara Kannada – Yellapur, Haliyal and Alnavar Talukas
•Belgaum – Eastern Belgaum
•Eastern Dharwar
•Mysore
•Kolar
•Shimoga, Hassan, Kodagu
•Other Districts on Assessments and Merits

ORCHARD STATUS

•Elevate the Cashew to Orchard Status
•Move away from "Marginal" mind-set
•TARGET = ONLY 6,200 Farmers + 5,000 farmers
•Full Potential target at
•2,000 Kilos of Raw Cashew Yield Per Hectare

MATRIX FOR MANAGEMENT

LAND AVAILABILITY
•IDEAL CLIMATE
•HORTICULTURE, TRADITION, PRACTICES, SUCCESS
•FARMER INCLINATION
•AVAILABILITY OF PLANT MATERIALS
•AVAILABILITY OF INPUT OF SKILLS
•AVAILABILITY OF VISIBLE DEMONSTRATION OF OUTPUT
•MARKETABILITY
•AVAILABILITY OF PROCESSING CAPACITY

MATRIX FOR MANAGEMENT –2

RESEARCH SUPPORT

- **INSTITUTIONAL SUPPORT**
- **STATE SUPPORT**
- **INFRASTRUCTURE**
- **INTEGRATION**
- **We are having GOOD *** to Excellent *****
- **Rating for the State and Focus Districts**

Benefits of Growth

- **150,000 Metric tonnes will mean**
- **Ex Farm Value of Rs 525 Crores at current prices**
- **Exports of Rs 725 at current prices**
- **Net Farm income of Rs 350 Crores**
- **Net Labour Addition of 7.5 Million women in Factories**
- **7 Million man days in farm**
- **1 Million man days in ancillary and service industry**
- **Direct Employment of 1,20,000 at current levels of technology**

Strategy

- **Information**
- **Selection**
- **Participation**
- **Motivation**
- **Implementation**
- **Self-interest Driven Approach**
- **Service Providers**
- **Training the Trainers**
- **Models and Icons**
- **Public Private Partnership**
- **PLAN ASSISTANCE UNDER X TH TO XIV TH PLAN**

INSTITUTION BUILDING

- **Karnataka Institute For Cashew nut Development**
- **Integrated Research – Basic and Applied**
- **Employee Education and Training**
- **Export Market Research and Analysis**
- **Techniques of Production**
- **Material Science and Operations Management**
- **Quality Management and Training**
- **Studies From Post Harvest to Customer**
- **Possible Location**

•UDIPI DISTRICT

State Support - KCMA DIAMOND JUBILEE PROJECTS

- **BYPRODUCTS UTILISATION –Shell CNSL AND Shell Cake**
- **Testa and Rejection Handling**
- **International Technology Infusion in processing**
- **Packing project for Jumbo Boxes**
- **Cashew Shell Cake based Power Project**
- **Cashew Apple Syrup**
- **Marketing of Roasted and Salted Cashews**
- **Integrated Logistics Project**
- **Information Technology Platform for Cashew Industry**

KCMA Projects

- **Drying and Storing of Raw Cashewnuts**
- **Cashew Kernel Packing and Warehousing Facility**

- **COMMON BRANDING – FOR THE GLOBAL MARKET**

Labour

- **Labour is our Strength**
- **Consolidate our Strength by careful Management of all Resources**
- **Training**
- **Productivity**
- **Fair Wages and growth in real earnings**
- **Industry Compatible Structure**
- **Ensure Strategy to Deal with Unfair Competition from Low Wage States**
- **CRITERIA LAID DOWN IN II ND LABOUR COMMISSION REPORT**
- **HOLISTIC APPROACH – THE INDUSTRY MUST SURVIVE TO THRIVE**

Inclusion/ exclusion criteria

- **There are no exclusions in the project**
- **PRINCIPLE OF**
- **VALUE CHAIN**
- **Producer – trader - Manufacturer – trader - Customer**

HEALTHY FISCAL POLICY

- **State Fiscal Policy must be towards**
- **Uniformity**
- **Consistency**
- **Conducive to Growth**
- **Produce Compatible**
- **We welcome VAT**
- **4 per cent on Cashew Kernels all over India**

Statistics

❖**NO Reliable Statistics on Indian production of raw material and production**

❖**A National Priority**

❖**NSSO must be commissioned for an Industry Statistic Report**

❖**Back Data must be compiled**

❖**Mechanism for the future.**

❖**Only Export and Import Figures are reliable**

❖**No Data on Indian Consumption**

Cashew and Nutrition

➢**Strong focus on nutritional issue**

➢**Cashew Apple Products – an Ideal development for Rural Nutrition**

➢**Natural Liking and Nutritional Input make a**

➢**Strong Case**

➢**For**

➢**SUSTAINED PROMOTION OF CROP AND PRODUCT**

HEALTH PROJECT

❖**Research Project with INC**

❖**Cashew and Treenuts – Good for health**

❖**Research into Removing Perceptions about Heart Related Issues in nuts consumption**

❖**Research into Positive Contribution of Nuts to Heart**

❖**Preparing and Publishing Literature**

Comments/ Critic

❖**.This Paper is subject to comments and criticism**

❖**Every proposition has to be tested before the Farmer takes up the orchard management programme**

Conclusion

❖**The Vision for Producing 150,000 Metric Tonnes is a Viable and Achievable Proposal**

❖**Requires Study, Dedication, Commitment, Involvement and**

❖**There is No Substitute for Hard Work**

APPENDIX - 4

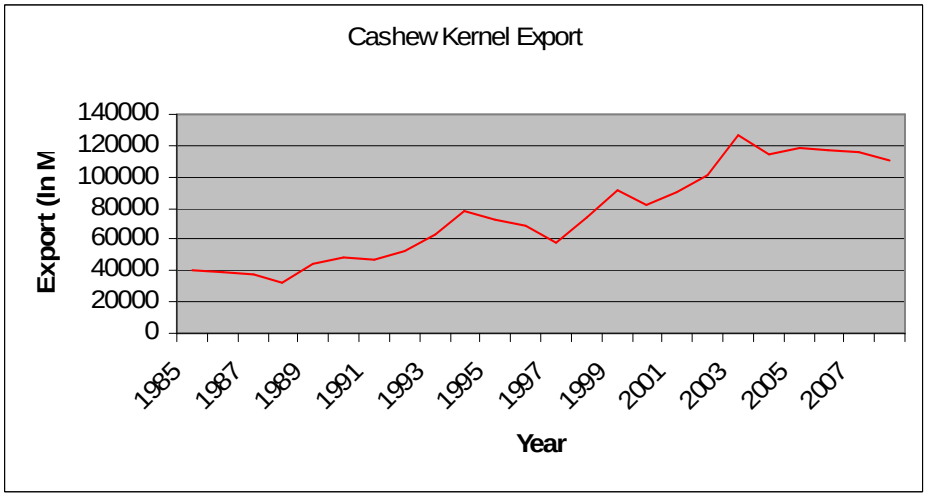
Cashew Kernel Scenario

Introduction

- The presentation is based on available statistics
- Some statistics are unreliable !!
- Emphasize on trend rather than absolute numbers
- Calendar Year – Financial year mismatch
- Inventory levels assumed to be constant

INDIAN EXPORT OF CASHEW KERNELS

Year	Export (In MT)	Year	Export (In MT)	Year	Export (In MT)	Year	Export (In MT)
1985	40553	*1991*	46841	*1997*	58362	*2003*	126667
1986	39482	*1992*	51929	*1998*	73960	*2004*	114143
1987	37376	*1993*	62984	*1999*	92084	*2005*	118290
1988	32455	*1994*	78260	*2000*	82175	*2006*	117329
1989	44197	*1995*	72640	*2001*	90197	*2007*	115265
1990	48764	*1996*	69055	*2002*	100828	*2008*	110950



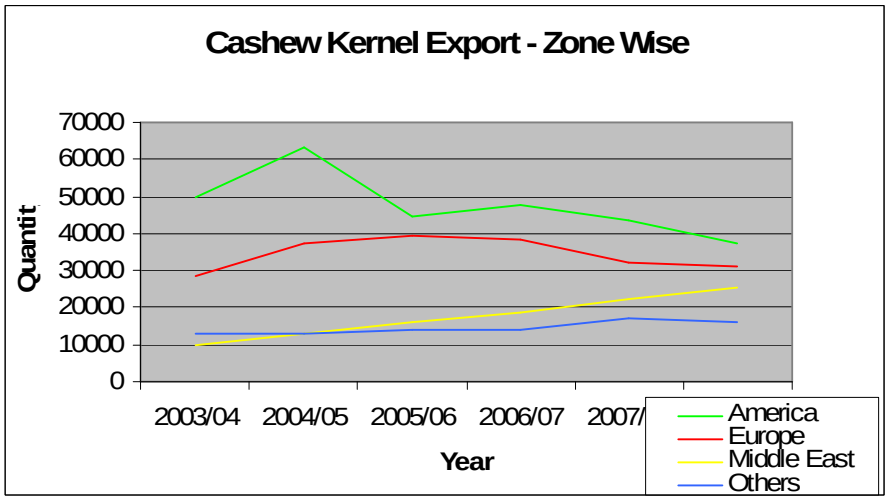
Exports are stagnant / decreasing from 2003

EXPORT ANALYSIS

Cashew Kernel Export In MT

Year	America	Europe	Middle East	Others	Total
2003 -04	49858	28319	9606	13045	100828
2004 -05	63085	37410	12989	13182	126667
2005 -06	44707	39430	15834	14172	114143
2006 -07	47553	38423	18493	14071	118540
2007 -08	43353	31907	22110	16975	114345
2008 -09	37317	31224	25163	15819	109523

Year	America	Europe	Middle East	Others
2003 -04	49.45%	28.09%	9.53%	12.94%
2004 -05	49.80%	29.53%	10.25%	10.41%
2005 -06	39.17%	34.54%	13.87%	12.42%
2006 -07	40.12%	32.41%	15.60%	11.87%
2007 -08	37.91%	27.90%	19.34%	14.85%
2008 -09	34.07%	28.51%	22.98%	14.44%



1. Export to Middle East is growing

2. Export to Main Markers (America and Europe) decreasing

USA Import Statistics

USA Cashew Kernel Import

Year	*India*	*Brazil*	*Vietnam*	*Others*	*Total*
2003	46895	26346	27980	1871	103092
2004	58413	29799	41257	2187	131656
2005	51644	25005	34277	3549	114473
2006	45758	28412	40664	2665	117498
2007	42353	32802	45579	5931	126665
2008	39714	21080	46580	6208	113581

Import Composition

Year	*India*	*Brazil*	*Vietnam*	*Others*
2003	45.49%	25.56%	27.14%	1.81%
2004	44.37%	22.63%	31.34%	1.66%
2005	45.11%	21.84%	29.94%	3.10%
2006	38.94%	24.18%	34.61%	2.27%
2007	33.44%	25.90%	35.98%	4.68%
2008	34.96%	18.56%	41.01%	5.47%

- *USA Imports are more or less stagnant*
- *Vietnam is the leading supplier for USA. They have made good for shortfall from India*
- *As Vietnam is not a fully reliable trading partner, US are looking for alternative suppliers.*

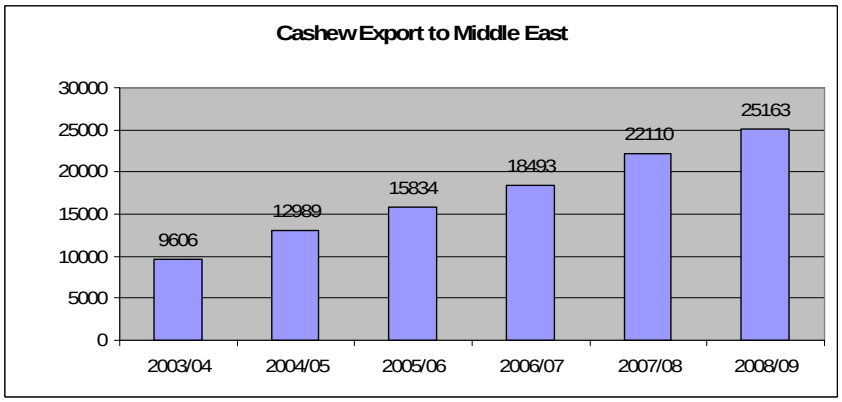
EU Import Statistics

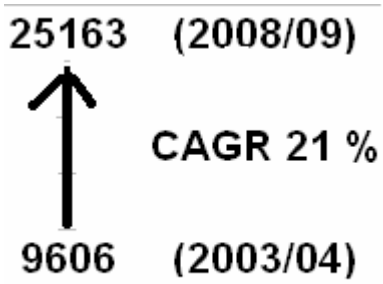
European Union import of cashew kernel from non- EU countries (in MT)

Year	India	Brazil	Vietnam	Others	Total
2005	38375	5151	20742	2062	66330
2006	40169	5158	23404	4854	73585

- *Vietnam slowly increasing the market share*
- *Latest data not readily available as it involves many countries*
- *Indian Exports to EU has decreased to 31000 MT in 2008.*
- *In all likelihoods, Vietnam has made good for this decrease in supply (as in USA)*

Analysis of Middle East Market



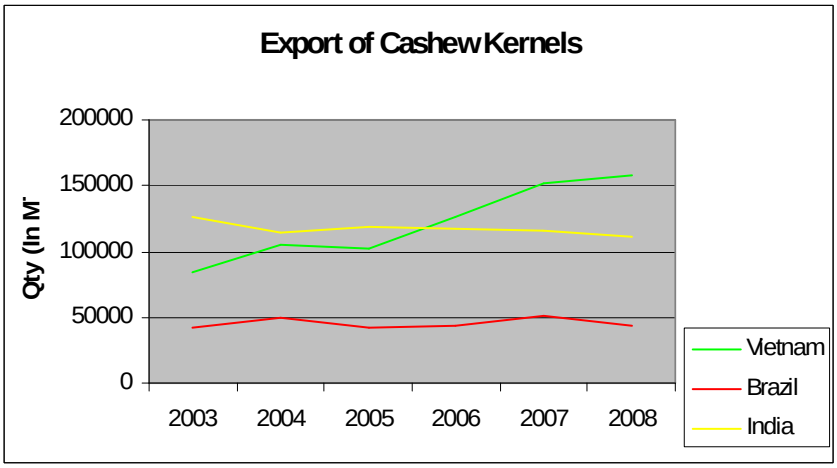


- Middle East is the only success story for Indian Cashew Exports
- Dubai acts as a hub and it alone accounts for 60% of India's Export to Middle East
- Cashews get re-exported from Dubai to other countries like Algeria, Egypt, Jordan, Syria
- Disposable income in the hands of people have gone up resulting in higher consumption
- Another reason for increase in consumption can be huge Indian population

India V/s Competitors

Export in MT

Year	Vietnam	Brazil	India
2003	84000	42661	126667
2004	105000	48989	114143
2005	103000	41822	118290
2006	126493	43183	117329
2007	151730	51552	115265
2008	158567	43375	110950



- The Supplies from India and Brazil have remained Stagnant
- Vietnam has become the leading exporter
- Vietnam Statistics not fully reliable

Indian Market – True Performer

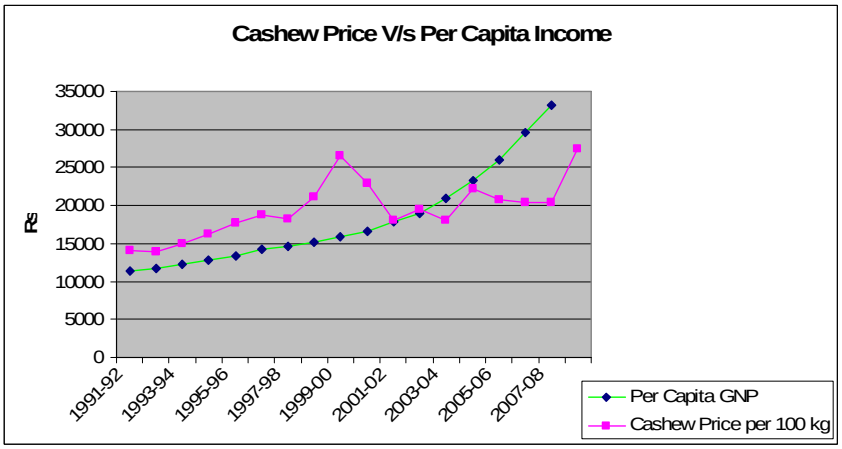
Estimation of Domestic Market

Year	*RCN Domestic*	*RCN Import*	*RCN Total*	*Kernel Output*	*Export*	*Domestic*
2003	506000	425697	931697	215093	126667	88426
2004	535000	559778	1094778	251551	114143	137408
2005	544000	565645	1109645	255002	118290	136712
2006	573000	571194	1144194	263183	117329	145854
2007	620000	591472	1211472	278924	115265	163659
2008	670000	648344	1318344	303436	110950	192486

- Domestic Crop size can be disputed. Hence, the data is not accurate
- But, no one can dispute the trend. Exports have gone down because of vibrant domestic market
- Indian Import of cashew kernels (800 MT + ?) adds to this figure
- If the figures are true, Indian consumption has grown at a CAGR of 17 % during last 5 years

Indian Growth Story

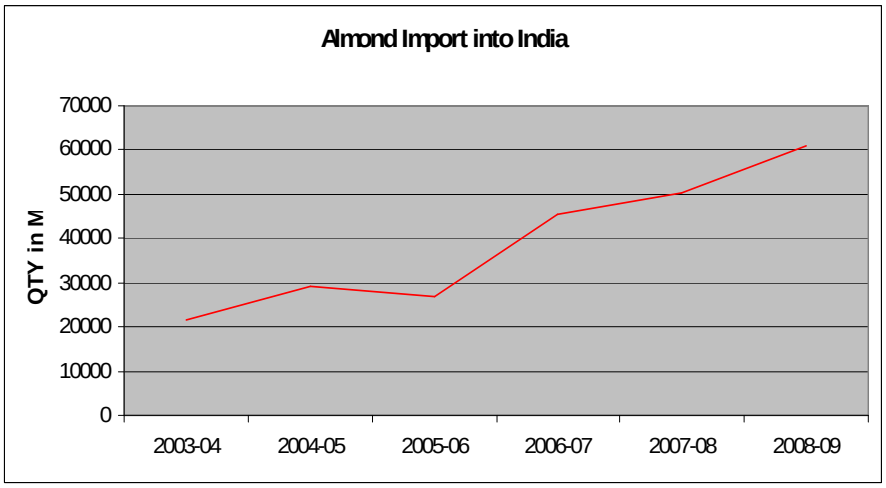
Year	GNP / person	Price / 100 kg	Year	GNP / person	Price / 100 kg
1991-92	11406	14000	2000-01	16688	22989
1992-93	11796	13951	2001-02	17782	18076
1993-94	12207	14968	2002-03	18885	19494
1994-95	12739	16186	2003-04	20871	18069
1995-96	13402	17637	2004-05	23198	22259
1996-97	14231	18722	2005-06	26003	20698
1997-98	14565	18228	2006-07	29524	20315
1998-99	15231	21149	2007-08	33283	20324
1999-00	15881	26543	2008-09	37750	27450



- Cashew Price is taken at average export price
- Income growth during 2003-08 has been at 12% CAGR, whereas the cashew kernel prices remained the same.
- Large no of middle class people can now afford cashews
- Retail revolution increased availability

Almond Import into India

Year	Qty in MT	Year	Qty in MT
1996-97	13547	2003-04	21513
1997-98	19573	2004-05	29085
1998-99	19438	2005-06	26806
1999-00	20357	2006-07	45460
2000-01	28114	2007-08	50210
2001-02	24220	2008-09	60800
2002-03	21551		



- The Best way to corroborate Cashew Statistics is by comparing it with Almonds
- Almond Imports into India has tripled from 21513 MT in 2003/04 to 60800 MT in 2008/09
- Almond consumption has grown by CAGR of 23% during last 5 years

Implications of Indian Growth

Cashew kernel sales in MT

Year	Export	Domestic	Export %	Domestic %
2003	126667	88426	58.89%	41.11%
2004	114143	137408	45.38%	54.62%
2005	118290	136712	46.39%	53.61%
2006	117329	145854	44.58%	55.42%
2007	115265	163659	41.32%	58.68%
2008	110950	192486	36.56%	63.44%

Cashew kernel sales in Percentage

Year	America	Europe	Gulf	Others	Domestic
2003 -04	26.34%	14.96%	5.08%	6.89%	46.72%
2004 -05	23.89%	14.17%	4.92%	4.99%	52.03%
2005 -06	17.82%	15.72%	6.31%	5.65%	54.50%
2006 -07	17.99%	14.53%	6.99%	5.32%	55.17%
2007 -08	15.59%	11.48%	7.95%	6.11%	58.87%
2008 -09	12.36%	10.34%	8.33%	5.24%	63.74%

1. Share our USA in our cashew kernel sales is now only 12%
2. Traditional markets (US / EU) together does not constitute 25% of our sales
3. The trend is continuing into this year also
4. Is the reason for decrease in consumption in USA and Europe is lack of supply from India?

	2008 - 09	2009 - 10	
	April-July	April-July	Change
Raw Cashew Nut Import into India (in MT)	265624	363990	37.03%
Cashew Kernel Export from India (in MT)	42426	36084	-14.95%

Looking into Future – If trend continues

Year	*RCN Domestic*	*RCN Import*	*Total*	*Cashew Kernel Output*	*Domestic Consumption*	*Exportable Surplus*
2008	670000	648344	1318344	303436	192486	110950
2009	716900	693728	1410628	324676	225208	99468
2010	767083	742289	1509372	347404	263494	83910
2011	820779	794249	1615028	371722	308288	63434
2012	878233	849847	1728080	397742	360696	37046
2013	939710	909336	1849046	425584	422015	3569
2014	1005489	972990	1978479	455375	493757	-38382
2015	1075874	1041099	2116972	487251	577696	-90445

Assumptions

1. Domestic Raw Cashew Supply continue to grow at 7%
2. Import of Raw Cashew nut continues to grow at 7%
3. Cashew Kernel Consumption continues to grow at 17%

Looking into Future – Realistic

Year	*RCN*	*RCN*	*Total*	*Cashew Kernel*	*Domestic*	*Exportable*
	Domestic	*Import*		*Output*	*Consumption*	*Surplus*
2008	670000	648344	1318344	303436	192486	110950
2009	716900	648344	1365244	314692	211734	102957
2010	767083	648344	1415427	326736	232908	93828
2011	820779	648344	1469123	339623	256198	83424
2012	878233	648344	1526577	353412	281818	71593
2013	939710	648344	1588054	368166	310000	58166
2014	1005489	648344	1653833	383953	341000	42953
2015	1075874	648344	1724218	400845	375100	25745
2016	1151185	648344	1799529	418920	412610	6310
2017	1231768	648344	1880112	438260	453871	-15611

Assumptions

1. Domestic Raw Cashew Supply continue to grow at 7%
2. Import of Raw Cashew nut will not grow
3. Cashew Kernel Consumption growth comes down at 10%

Vision 2020

- Unless we grow more cashews, we will have no exportable surplus by 2016
- India will consume all cashews we produce. Maximum, we may be exporting to Middle East
- Still large untapped market in Pakistan and China
- Supply / crop has to grow at least 15% CAGR to keep pace with demand growth

APPENDIX - 5

SCOPE OF IMPROVEMENT IN QUALITY OF IMPORTED RAW CASHEWNUTS
BY KRISHNAN G NAIR, KGN

PRODUCE OF INDIA ……. PRODUCT OF INDIA

FACT

- 605, 850 MT RCN IMPORTED IN 2008-2009 (46% - 58% OF PROCESSING)

SHOCKING FACTS

IN 2008-09 THE CASHEW INDUSTRY IMPORTED @ Rs. 43449.69 PMT

- AROUND 12,117 MT OF WATER (Rs.52.648 CRORES)
- AROUND 6058 MT OF ADMIXTURE- SAND, STONES, BRICKS & USELESS ORGANIC MATTER (Rs. 26.324 CRORES)

STARTLING FACTS

- 1% INCREASE IN MOISTURE LEADS TO 1.3% DETERIORATION IN VALUE (2008-2009 : 68.44 CRORES)
- LOSSES DUE TO CHEMICAL CONTAMINATION INCALCULABLE. OVER 100 FCL CASHEW KERNELS REPORTED TO HAVE BEEN RECALLED IN 2008-2009.

- **USE OF IMPORTED RCN MORE WIDESPREAD**
- **PROCESSORS IN ALMOST ALL STAGES USE IMPORTED RCN TO TIDE OVER DOMESTIC RCN SHORTAGE**
  - **NEED TO IMPROVE QUALITY BECAUSE**
    - WIDE VARIATIONS
    - THIN MARGINS
    - KERNEL MARKETS BECOMING MORE QUALITY CONSCIOUS
  - **HEALTH & SAFETY ISSUES**
    - THE CASHEW BHC/CHLOROPHENOL PROBLEM
    - THE US PEANUT BUTTER/PISTACHIO SALMONELLA SCARE
    - AFLATOXIN/ CHEMICAL ISSUES

Δ **ISSUES PECULIAR TO IMPORTED RCN VIS A VIS INDIAN RCN**

- HIGHER INVESTMENT PER LOT
- INCREASED TRANSIT TIME
- LESSER CONTROL
- LOWER CONSISTENCY
- LESS FACILITIES AT ORIGIN
- LESS CREDIBLE INFORMATION ON MARKET/QUALITY TRENDS HENCE HIGHLY RISKY.

∆ **QUALITY PREMISES**

- CONTROLLABLE– VS- UNCONTROLLABLE FACTORS
  - ALL FACTORS ARE CONTROLLABLE AT SOME STAGE
  - PLAYERS- FARMER/AGENT/TRADER/EXPORTER/IMPORTER & GOVERNMENT
  - WE WILL FOCUS ON WHAT YOU – THE PROCESSOR EXPORTER CAN
    - DIRECTLY CONTROL &
    - REASONABLY INFLUENCE THE OTHER PLAYERS
- HOLISTIC APPROACH

∆ **KEY FACTORS IN PURCHASE**

- WORKABILITY
- YIELD
- SIZE/COUNT
- ORGANOLEPTIC- APPEARANCE, COLOUR, TASTE, TEXTURE, SMELL
- WEIGHT
- FOOD SAFETY & HYGIENE
- PURITY OF THE PRODUCT I.E. ABSENCE OF CONTAMINANTS
- PROCESSING METHODS– DRUM ROAST/ STEAM ROAST
- PRODUCTION SCHEDULE
- GENERAL MARKET TRENDS
- GENERAL CHARACTERISTICS OF ORIGIN
- SHIPMENT PERIOD- EARLY, MIDDLE OR END OF THE SEASON
- TRANSIT TIME
- MARKET INFORMATION – NOT ALWAYS RELIABLE
- PREVIOUS EXPERIENCE -NOT ALWAYS A TRUE REFLECTION OF THE CURRENT CROP
- DRYING OPPORTUNITIES AT DESTINATION (E.G. RAINY SEASON)

- **EXCESS MOISTURE**
  - IMPROPER/INADEQUATE POST HARVEST DRYING
  - AFFECTS ALL KEY FACTORS
    - MAJOR COST FACTOR
    - WEIGHT LOSS – AT LEAST 2% LOSS
    - QUALITY DETERIORATION
      - @ 1.3% DETERIORATION FOR EVERY 1% MOISTURE INCREASE
  - LEADS TO BIOLOGICAL CONTAMINANTS LIKE MOULD ETC
  - MEDIUM FOR CHEMICAL CONTAMINANTS
  - EAU DE AFRIQUE

- **CHEMICAL CONTAMINATION**
  - ORGANO HALOGENS – CHLORINE/BROMINE/IODINE
  - CHEMICALS/PESTICIDES/WEEDICIDES/FERTILIZERS/FUNGICIDES
  - ONE OF THE MOST DANGEROUS PROBLEMS

- SALVAGING BECOMES VERY DIFFICULT
- TO BE CHECKED AT VARIOUS POINTS IN THE PURCHASE CYCLE
- CONSEQUENCE OF CHEMICAL CONTAMINATION DISASTROUS FOR INDIVIDUAL EXPORTER(RECALL/LITIGATION/CLAIMS) & FOR THE INDUSTRY(BAN/BLACKLIST)
- VARIOUS CAUSES
- GOOD HARVESTING/DRYING/STORING/TRANSPORTATION/ MANUFACTURING PRACTICES TO BE ADOPTED

- **ADMIXTURE**
  - SAND, STONES, BRICKS , USELESS ORGANIC MATTER ETC
  - AT LEAST 1% LOSS
  - 2008-2009 : ESTIMATED ADMIXTURE LOSSES FOR THE INDUSTRY 6058 MT OR RS.26.324 CRORES
  - OTHER PROBLEMS WITH ADMIXTURE
    - MAY CAUSE SERIOUS CONTAMINATION
    - ORGANIC ADMIXTURE ACTS AS A CATALYST FOR FURTHER DETERIORATION
    - DAMAGES THE BOILER/COOKER AND CUTTING MACHINES
    - UNEVEN ROASTING & HINDERS SHELLING

VALUE MAXIMIZATION DURING THE VARIOUS STAGES OF IMPORT

- **CONFIRMATION OR CONTRACT STAGE**
  - QUALITY PARAMETERS
    - COUNT
    - YIELD/OUTURN
    - ADMIXTURE (0.25% MAX)
    - MOISTURE (7-8% FOR CONTAINER SHIPMENT)
    - SPECIAL CONDITIONS (DRIAGE, TASTE TEST ETC)
  - DOCUMENTS
    - CLEARLY MENTION ALL DOCUMENTS YOU REQUIRE
  - COVER EVERY ASPECT

- **INSPECTION AT ORIGIN**
  - WAREHOUSE & YARD CONDITIONS
  - LOT SIZE FOR INSPECTION
    - DIVIDE LARGE LOTS INTO SMALL PARCELS FOR MORE ACCURATE CUTTING RESULTS
  - MOISTURE
    - CHECK WELL AS OUTWARDLY IT MAY APPEAR DRY
    - CHECK KERNEL & TESTA DURING CUTTING TEST FOR MOISTURE

- **CUTTING TEST**
  - COUNT
  - OUTURN
    - GREATER THE DEFECTIVE, GREATER WILL BE THE VARIATION IN OUTURN FOR EACH CUTTING TEST
    - DO A PEELING TEST AFTER DRYING-GIVES A BETTER IDEA OF THE YIELD
  - TASTE TEST AFTER DRYING/HEATING
  - ODOUR TEST AFTER HEATING (TO CHECK DECAY/CHEMICAL CONTAMINATION)

- **PACKING**
  - JUTE/SISAL BAGS – CLEAN, DRY AND FREE FROM ODOUR & DEBRIS
  - PP(POLY PROPYLENE) BAGS DANGEROUS
  - PROPERLY MOUTH STITCHED
  - SAMPLING TEARS TO BE STITCHED OR TAPED

- **STUFFING**
  - BREAK BULK
    - VENTILATION
    - DUNNAGE
    - PROPER PROTECTION OVER CARGO HOLD
    - AVOID LOADING DURING RAIN

- **CONTAINER**
  - FREE OF DAMAGE (LIGHT TEST)
  - VENTILATED
  - HOOKS
  - CLEAN, DRY & FREE OF ODOUR & DEBRIS(CONTAINER CLEANLINESS CERTIFICATE)
  - ADEQUATE DOUBLE LAYER KRAFT PAPER LINING ON ALL SIDES
  - LOADING/ STACKING TO ALLOW PROPER VENTILATION. IDEALLY 16.50 MT TO 16.75 MT PER 20 FT FCL
  - ADEQUATE MOISTURE ABSORBANT BAGS (1 KG X 12) ON HOOKS WITHOUT COMING INTO CONTACT WITH THE BAGS
  - MOISTURE ABSORBANT CYLINDERS (SEEN IN INDONESIAN SHIPMENTS)
  - LOOSE CARGO NOT TO BE LOADED ALONG WITH BAGS IN CONTAINERS
  - FUMIGATION OF WET NUTS DANGEROUS
  - CONTAINER DOORS TO BE WATERTIGHT

- **SHIPMENT**
  - ALL RAW CASHEW IMPORTS INTO INDIA PASS THROUGH AT LEAST 2 CLIMATIC ZONES CAUSING CONDENSATION
  - ALL RAW CASHEW TO BE INCLUDED UNDER SENSITIVE ITEMS FOR FASTER TRANSIT
  - PREFER FAST LINES
  - DO NOT DELAY IN TAKING DELIVERY

- **ARRIVAL & DESTUFFING**
  - ENSURE ALL DAMAGES AND SHORTAGES ARE RECORDED
  - UNLOAD AWAY FROM PROCESSING AREAS TO AVOID INFESTATION
  - SEGREGATE WET BAGS, DRY, REBAG, STORE SEPARATELY & PROCESS IMMEDIATELY
  - SEPARATE GERMINATED NUTS- BUT DO NOT PROCESS THEM

- **ADVISABLE TO DRY ALL IMPORTED NUTS**
  - INADEQUATE DRIAGE
  - APPARENTLY DRY NUTS MAY HAVE TRAPPED MOISTURE
  - UNEVEN DRYING
  - TO LET OUT MOISTURE TRAPPED DURING CONDENSATION IN TRANSIT
  - TO INCREASE STORAGE LIFE & ENHANCE COLOUR

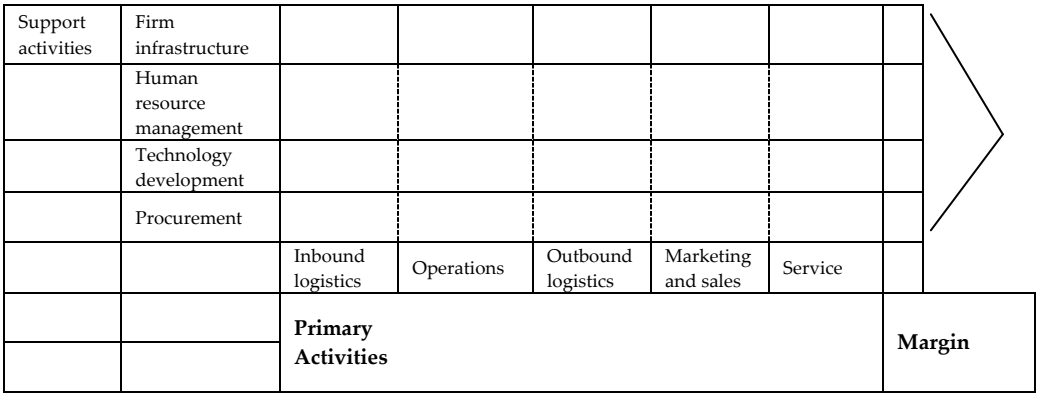
CONCLUSION

- EDUCATE SUPPLIERS
- SUPPORT RESPONSIBLE SUPPLIERS
- EVOLVE MORE RELIABLE TESTING METHODS JOINTLY
- GRADUALLY INSIST ON CERTIFICATES TO SUPPORT MOISTURE/ADMIXTURE/CHEMICAL TEST
- BLOCK THE TROJAN HORSES
  - MOISTURE
  - CHEMICAL CONTAMINATION
  - ADMIXTURE
- MACRO MODEL- MICRO MANAGEMENT
- HOLISTIC APPROCH

APPENDIX - 6

An important concept that highlights the role of information technology in competition is the "value chain". This concept divides a company's activities into the technologically and economically distinct activities it performs to do business. We call these "value activities". The value a company creates is measured by the amount that buyers are willing to pay for a product or service. A business is profitable if the value it creates exceeds the cost of performing the value activities. To gain competitive advantage over its rivals, a company must either perform these activities at a lower cost or perform them in a way that leads to differentiation and a premium price (more value).

A company's value activities fall into nine generic categories. Primary activities are those involved in the physical creation of the products, its marketing and delivery to buyers, and its support and servicing after sale. Support activities provide the inputs and infra structure that allow the primary activities to take place. Every activity employs purchase inputs, human resources, and a combination of technologies. Firm infrastructure, including such functions as general managements, legal work and accounting, supports the entire chain. Within each of these generic categories, a company will perform a number of discrete activities, depending on the particular business. Service, for example frequently includes activities such as installation, repair, adjustment, upgrading and parts inventory management.



APPENDIX - 7

The Diamond of National Advantage

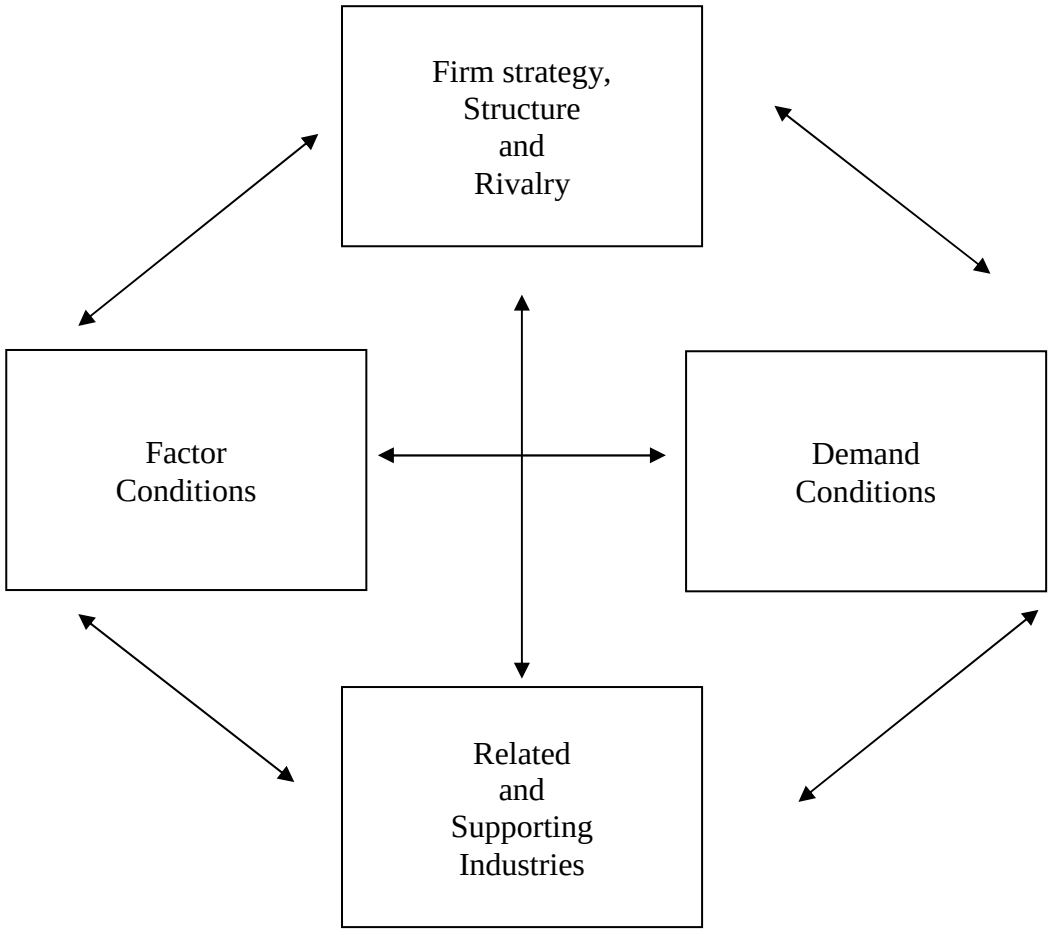
i. *Factor conditions : The nation's position in factors of production, such as skilled labour or infra structure, necessary to compete in a given industry*

ii. *Demand condition : The nature of home-market demand for the industry's product or service.*

iii. *Related and Supporting Industries : The presence or absence in the nation of supplier industries and other related industries that are internationally competitive.*

iv. *Firm Strategy, Structure and Rivalry : The conditions in the nation governing how companies are created, organized and managed as well as the nature of domestic rivalry.*

COMPETITIVE ADVANTAGE OF NATIONS



APPENDIX - 8

Drying and Storage of the Nuts

The moisture content of cashew nuts at harvest depends on climatic conditions, moisture of the soil on which the nuts have fallen, weed-growth density under the tree, and the time between nutfall and harvesting. The moisture percentage of harvested cashew nuts cab be as high as 25 (Pattinson 1968).	
High moisture content may cause deterioration of the kernel due to mould or bacterial attack, or enzyme action. Affected nuts may lose their nutty taste and aroma, which would result in considerable loss of quality.	The main cause of mal odor is absence of drying by farmers. Current tracking practices encourage such a state to continue with negative effects for world's consumers.
It is therefore important that nuts are frequently harvested, especially under conditions of high relative humidity or occasional rainfall during the harvesting season.	
Okwelogu and Mackay (1969) calculated that, if 14% moisture in the non-oleaginous portion of the seed is considered the maximum permissible figure for sale storage of oilseeds, the maximum permissible moisture content of raw cashew nuts would be 8.7 – 9.1% for kernels with oil percentages of 47- 38%.	
They suggest that, to ensure kernel quality, the level of acceptable moisture content should be lower than this maximum. They also found that high whole-nut or kernel moisture percentages are closely associated with high shell moisture contents, and that for nuts of which the moisture content is in equilibrium with the ambient relative humidity, the moisture content of whole nut and kernel can be predicted from that of the shell with more than 99% accuracy.	

Russell (1969) considered a whole-nut moisture content of 9% or below to be safe for storage.	
Baiao (1963b) found a correlation between nut weight and moisture content. He explained the higher moisture content of the larger nuts by their greater mass in relation to surface	
The higher moisture content of heavier nuts was confirmed by Okwelogu and Mackay (1969).	
They suggested that the slight effect of nut size or weight appears to be due to the fact that a given shell weight is associated with more kernel tissue in the small than in the large nuts	
About a third of shell consists of an oily liquid, which is presumably hydrophobic, while 38-47% of the kernel is fat, suggesting that the kernel is more hydrophobic than the shell. Consequently a higher kernel/shell-weight ratio will tend to be accompanied by a lower moisture content and vice versa.	
Drying the nuts immediately after harvesting is essential to preserve their quality, but often neglected.	
Harvested nuts are often stored on a heap in a thatch-covered hut. Depending on ambient relative humidity, aeration and size of the heap, such cashew nuts may gradually lose a large part of their moisture. Yet, this drying process is too slow, especially when the moisture content of the nuts is relatively high.	
The quality of the nuts, especially of those in the inner part of the heap, is often adversely affected	
Deterioration is irreversible and cannot be made good by subsequent drying. As the main damage to kernel quality usually happens at farmer's level, it is very important that farmers are adequately by extension workers and/or buying agents.	

Payment according to quality may be an important incentive for producers to improve their drying methods. Sun-drying or cashew nuts can be done on specially prepared drying floors. But where no such floors are available, mats made of bamboo or of palmleaves or other similar materials can be used, especially when only small quantities of nuts are harvested each time.	
Drying floors should be smooth and slightly sloping to allow rain water to run of. Russell (1969) describes the preparation of a relatively cheap drying floor covered with red earth such as from anthills, well watered and beaten down to form a flat surface. The surface should be treated with a bituminous spray, for instance by means of a watering can fitted with a special spout to allow the emulsion to spread evenly. After the application, plenty of sand should be thrown on the wet surface to soak up some of the moisture and to fix the emulsion. Surplus sand can be swept off later. Still, even such drying floors will be too expensive for most peasants, unless they are provided by cooperatives.	
Russell recommends that the cashew nut layer on the drying floor should not be thicker than 10 cm. This would allow for about 60 kg of nuts per square metre	
The nuts should constantly be raked, and in the evening they should be heaped and preferably covered. He also recommends the use of wooden tools, as metal tools will destroy the surface of the drying floor. The nuts should be dried until they make *a rattling sound when falling*	
This may take one to several days, depending on local climatic conditions. As soon as the nuts are dry, they should be stored and protected from rain and preferably be brought to a local godown as soon as possible.	

In a dry climate, the drying process may continue during storage, *but under conditions of high relative humidity the nuts may take up moisture from the air until an equilibrium is reached*.	
Okwelogu and Mackay (1969) found that nuts stored at a temperature of 27 deg C and a relative humidity of 70% had a moisture content of 9.2%.	
Nuts exposed to relative humidities of about 75% became mouldy within a few weeks.	
They also found that in moving air the nuts take up moisture rapidly during the first 24 hours, and very slowly thereafter until equilibrium is reached.	
In conditions of still air, the nuts take up moisture at a steadily decreasing rate and equilibrium is reached much later	
They concluded that the equilibrium moisture content of nuts may be reached in a much shorter time by installing a fan in the conditioning chamber and that for storage under humid tropical conditions there should be minimum ventilation in the godown, since excessive movements of damp air around the product will tend to raise its moisture content to undesirable level in a relatively short time.	
However, if relative humidity during a particular day time period drops to a level much lower than in the godown, it might be advisable to ventilate as much as possible. Under very humid conditions the use of a moisture extraction unit may be considered when the moisture content of the nuts becomes too high.	

APPENDIX – 9

Questionnaire

CONTROL LEVELS FOR INPROCESS QUALITY CONTROL TO BE ADOPTED BY THE PROCESSING UNITS

Executive Instructions

SL No	Ref	Yes	No
	QUALITY CONTROL : Only processing units, approved by the Agency shall be eligible for processing cashew kernels for export and submit to quality for such approval, shall have the following minimum facilities :-		
1.	**Feeder Units -** General - Only feeder units approved by the Agency shall process raw cashew nuts for export. In order to adjudge the sanitary and hygienic conditions with special reference to entomological aspects prevailing in the unit and assess the adequacy of the minimum facilities available to process cashew kernels for export, the feeder units/branch factories shall be subjected to an evaluation by the Agency. A feeder unit shall have the minimum facilities as specified below:-		
1.1	Surroundings and construction		
(1)	The surroundings of units, which are under the physical control of the processor, shall be such as not to pose any sanitary problems.		
(2)	The building shed shall be maintained satisfactorily.		
(3)	The working rooms shall be maintained in good repair to prevent any risk of infestation		
1.2	Processing Areas		
(1)	The raw nut go downs and the processing rooms shall be such as to permit effective anti-infestation and dis-infestation operation.		
(2)	Arrangements shall be available to prevent entry or rodents birds and the like into the processing room.		
(3)	All the working areas shall be well lighted.		
(4)	Areas of compartments and the containers used for the storage of edible products shall be separate and instinct from those used for inedible materials.		
(5)	All the utensils, trays and table surface which come into contact with material shall be cleaned before, after and during intervals of use as often as necessary.		
1.3	Toilet Facility - Adequate toilet facilities as required under the law shall be provided in the unit. Soap and plentiful supply of water shall be provided at the toilet.		

1.4	Personnel health and hygiene -		
(1)	Plant management shall take care to ensure that no person while known to be affected with a communicable disease is permitted to work in any area of the unit.		
(2)	All persons working in the processing areas shall maintain a high degree of personal cleanliness while on duty.		
(3)	The workers shall wash their hands before entering the processing room after each absence.		
(4)	Chewing, spitting and use of tobacco in any form shall be prohibited in the processing rooms.		
1.5	Transportation Facilities – It shall be ensured that pre-processed and finished products are transported to the packing centres only in polythene, laminated/non-rusting metalic container.		
1.6	Procedure of Inspection -		
(1)	For the purpose of assessment of feeder units, the exporter shall inform the Agency in writing, in the proforma prescribed by the Council, the details of the feeder units.		
(2)	On receipt of such information, the Agency officers, shall visit the feeder units in order to adjudge the sanitary and hygienic conditions and facilities for processing available in the unit.		
(3)	If the unit is found to have the minimum facilities as specified in these rules and the hygienic and sanitary conditions are satisfactory and no infestation problems noticed, the Agency shall approve the unit and permit it to carry out processing of Cashew Kernels for export.		
(4)	If the unit is found not have the minimum sanitary and hygienic conditions, the processor shall not be allowed to process cashew kernels for export in that unit.		
(5)	A unit which is not approved or whose approval has been withdrawn may after rectifying the defects, make fresh application to be Agency for getting fresh approval.		
(6)	If, at any time, there is any difficulty in maintaining the conformity of the product to the specification for any reason or if so directed by the Agency, production for export shall be suspended under intimation to the Agency.		
(7)	The processing for export shall be resumed only after the same is approved by the Agency in writing.		
8)	The processing operations such as roasting, drying, peeling, grading, storage etc. shall be carried out in hygienic conditions under the supervision of experience personnel of the unit.		
(9)	The processing operations such as roasting shall be subjected to check by the Agency officers as often as found necessary.		

1.7	Processing -		
(1)	It shall be ensured that necessary anti-infestation and dis-infestation measures are carried out periodically and, as and when suggested by the Agency Officers.		
2.0	**Packing Centre:** General - Only packing centres approved by the Agency shall be eligible for packing cashew kernels for export.		
2.1	Such approved packing centres shall obtain kernels for packing for export from approved feeder units only. A packing centre to qualify for approval shall have minimum facilities as specified below :		
2.2	Surroundings, construction and layout :		
(1)	The building shall be of permanent / semi-permanent construction and kept in good repair.		
(2)	The surroundings which are under the physical control of the processor shall not have any swamps, dumps or animal housing nearby which might pose any sanitary problems.		
(3)	The working premises shall be kept in good repair to prevent any risk of infestation.		
2.3	Processing areas		
(1)	Measures shall be adopted to protect against entry of insects, rodents, birds and the like into the processing rooms.		
(2)	All the working areas shall be well lighted.		
(3)	Areas or compartments used for the storage of edible products shall be separate and distinct from those used for inedible materials.		
(4)	Waste material shall be frequently removed from the working areas during processing operations.		
(5)	All the utensils, trays and table surface which come in contact with cashew kernels shall be cleaned before, after and during intervals of use as often as necessary.		
(6)	All small receptacles like trays,; bowls, ;and utensils used in filling areas shall be of non-corrodible materials other than wood, and shall also have smooth surface from crevices.		
(7)	Rejected material shall be frequently removed from the working areas during processing operation.		
(8)	Hand washing facility such as wash basin and soap shall be provided at the entrance to the packing/filling section.		
2.4	Machinary -		
(1)	The packing centre shall have a vitapack equipment in good working condition capable of drawing a vacuum of 26" Hg. The vitapack shall be fitted with a guage to indicate the vacuum drawn from the tins during vacuumisation.		

(2)	The packing centre shall be provided with a pneumatic foreign matter segregator (PFMS) in the filling section to segregate any foreign matter that may be present with the kernels. The entire filling operations of Cashew kernels shall be done only through PFMS.		
(3)	The packing centre shall have necessary cooling facilities for conditioning the kernels, maintained under hygienic conditions :		
2.5	Toilet Facility		
(1)	Adequate toilet facilities of sanitary type shall be provided. Soap and plentiful supply of water shall be provided at the toilets.		
2.6	Personnel Health and Hygiene -		
(1)	Plant management shall take care to ensure that no person while known to be affected with a communicable disease is permitted to work in any area of the unit.		
(2)	All persons working in the processing area shall maintain a high degree of personal cleanliness while on duty.		
(3)	The workers shall wash their hands before entering the processing rooms after each absence.		
(4)	Chewing, spitting and use of tobacco in any form shall be prohibited in the processing rooms.		
(5)	Lunch boxes shall not be kept in the processing rooms.		
(6)	The management shall provide clean approns and head gears to the employee working in the filling and packing section.		
2.7	Approval of packing centre		
(1)	A processor intending to pack Cashew kernels for export shall inform his intention to do so in writing, in the proforma prescribed by the Agency in this behalf.		
(2)	On receipt of such information, the Agency officers shall visit the packing unit in order to adjudge the facilities for processing available in the unit.		
(3)	If the unit is found to have the minimum prescribed facilities the unit shall be approved to pack cashew kernels for export.		
(4)	If the unit is found not to have the minimum prescribed facilities, the unit shall not be approved to pack cashew kernels for export.		
(5)	The approval so accorded shall be withdrawn in respect of unit for the following reasons, after giving a notice of minimum period of two months :		
(i)	If the equipments and machinery are not in good working condition;		
(ii)	If the sanitary and hygienic conditions of the unit are not satisfactory;		
(iii)	If the sanitary and hygienic conditions of the feeder unit are not satisfactory and cases of infestation have been reported in the entomological survey by the Agency officers;		

(iv)	If the processor has violated or deliberately attempted to violate the provisions of the rules issued by the Council.		
(6)	Such withdrawal of approval shall be intimated in writing to the processor.		
(7)	No vitapacking work shall be undertaken in the unit, when the vitapack machine is not in the prescribed working condition.		
(8)	A unit, whose approval has been withdrawn, may, after rectifying the defects, take a fresh application to the Agency for obtaining fresh approval.		
(9)	If at any time, there is any difficulty for unit in maintaining the conformity to the requirements for any reason or if directed by the Agency, production for export shall be suspended under intimation to the Agency.		
(10)	The processing for export shall be resumed only after the same is approved by the Agency in writing.		
2.8	Filling and packing cashew kernels -		
(1)	An exporter intending to pack cashew kernels for export shall after preparing the cashew kernels in this behalf specified in these rules exercising the levels of inprocess quality control measures shall pack the same in new, clean, dry and leakproof tin containers conforming to IS:916 (latest version). Each tin shall be securely closed and sealed in such manner as may be specified by the Agency from time to time.		
(2)	The tins shall, thereafter, be marked with grade designation labels and packed in corrugated fibre board cartons. The corrugated fibre board used for packing sealed tins shall be double wall corrugated fibre board suitable for mass content of 25 Kgs. as per IS : 2771 part I.		
(3)	Exporters intending to use grade designation labels shall obtain their requirements of such labels from the nearest office of the Agency.		
(4)	Cashew kernels of only one grade shall be packed in a carton.		
3.	**Composite Unit** - A composite cashew factory having facilities for both processing and packing of cashew kernels for export shall have the prescribed facilities of the feeder units and the packing centre to be eligible for approval. For such units, a composite approval will be sufficient.		
4.	**Maintenance of records** -		
	(1) Necessary records/registers shall be maintained by the processor at the respective premises in order to ensure effective control of the processing of Cashew kernels and these shall be made avilable to the Agency Officers for inspection as and when required.		

5.	**Procedure of Inspection** -		
(1)	An exporter intending to export a consignment of cashew kernels shall give intimation to the Agency in writing in the proforma prescribed in this behalf and submit alongwith such intimation a declaration to the effect that the consignment of cashew kernels has been processed adopting the levels of in-process quality control measures as prescribed by the Agency in this regard.		
(2)	Such intimation shall reach the Agency office not less than three working days prior to the required date of receipt of certificate for shipments in the case of cashew kernels involving no laboratory tests and five working days when laboratory tests are involved. In the case of roasted/salted cashew kernels such notice period shall be ten working days.		
(3)	On receipt of such intimation, if the Agency is satisfied that the consignment to be exported complies with the specified standards, it shall issue a certificate to the exporter declaring the consignment exportworthy.		
(4)	When the agency is not so satisfied, it shall refuse to issue such certificate and communicate such refusal in writing to the exporter alongwith the reasons therefore.		
(5)	For the purpose of inspection, the Agency officer shall have access to relevant records and premises where processing, packing and storage of cashew kernels are carried out.		
(6)	Subsequent to certification, the Agency shall have the right to reassess the quality of the consignment at any place of storage, while in transit or at the ports before its actual shipment.		
(7)	In the event of the consignment being found not conforming to the standard specifications at any of these stages, the certificate of inspection originally issued shall be withdrawn.		

ANNEXURE - 10

RATING COMBINATIONS FOR CASHEW MANUFACTURING UNITS

Draft for Consideration

	Rating	Rating Description	Criteria
1	CA ++	Highest Product quality, Highest performance	
2	CA +	Highest Product Quality, High Performance	
3	CA	Highest Product Quality, Moderate Performance	
4	CB+	Moderate Product Quality, Highest Performance	
5	CB	Moderate Product Quality, Moderate Performance	
6	CB-	Moderate Product Quality, Average performance	
7	CC+	Average Product Quality, Moderate Performance	
8	CC	Average Product Quality,Average Performance	
9	CC-	Below Average Product Quality, Poor Performance	

Notes:

1 Rating borrowed from the financial system and requires thorough working by a group of specialists in cashew and persons capable of awarding the rating.
2.Criteria Can be evolved in the beginnning as a draft
3 Rating must have the acceptability of the cashew manufacturing unit on the basis of an agreement
4 Rating must have the acceptability of the customer through objectivity and experience

ANNEXURE – 11

NUTRIENT VALUES OF CASHEW NUTS – Value per 100g :

NUTRIENT	UNITS	VALUE PER 100 gms
Proximate		
Water	g	5.20
Energy	Kcal	553
Energy	kJ	2314
Protein	g	18.22
Total Lipid (fat)	g	43.85
Ash	g	2.54
Carbohydrate, by difference	g	30.19
Fiber, total dietary	g	3.3
Sugars, total	g	5.91
Sucrose	g	5.81
Glucose (dextrose)	g	0.05
Fructose	g	0.05
Lactose	g	0.00
Maltose	g	0.00
Galactose	g	0.00
Starch	g	23.49
MINERALS:		
Calcium, Ca	mg	37
Iron, Fe	mg	6.68
Magnesium, Mg	mg	292
Phosphorus, P	mg	593
Potassium, K	mg	660
Sodium, Na	mg	12
Zinc, Zn	mg	5.78
Copper, Cu	mg	2.195
Manganese, Mn	mg	1.655
Selenium, Se	mcg	19.9
VITAMINS:		
Vitamin C, total ascorbic acids	mg	0.5
Thiamin	mg	0.423
Riboflavin	mg	0.058
Niacin	mg	1.062
Pantothenic Acid	mg	0.864
Vitamin B – 6	mg	0.417
Folate, total	mcg	25
Folic Acid	mcg	0
Folate, food	mcg	25
Folate, DFE	mcg _DFE	25
Vitamin B – 12	Mcg	0.00
Vitamin A – RAE	mcg_RAE	0.00
Retinol	mcg	0
Carotene, Beta	mcg	0
Carotene, Alpha	mcg	0
Cryptoxanthin, Beta	mcg	0
Vitamin A, IU	IU	0
Lycopene	mcg	0
Lutein+zeaxanthin	mcg	22
Vitamin E (alpha-tocopherol)	mg	0.90
Tocopherol,Beta	mg	0.03
Tocopherol,Gamma	mg	5.31
Tocopherol,Delta	mg	0.36
Vitamin K(phylloquinone)	mcg	34.1
LIPIDS		

Fatty acids, total saturated	**g**	**7.783**
4:00	**g**	**0.000**
6:00	**g**	**0.000**
8:00	**g**	**0.015**
10:00	**g**	**0.015**
12:00	**g**	**0.015**
14:00	**g**	**0.015**
15:00	**g**	**0.000**
16:00	**g**	**3.916**
17:00	**g**	**0.046**
18:00	**g**	**3.223**
20:00	**g**	**0.266**
22:00	**g**	**0.173**
24:00:00	**g**	**0.101**
Fatty acids, total monosaturated	**g**	**23.797**
14:01	**g**	**0.000**
15:01	**g**	**0.000**
16:1 undifferentiated	**g**	**0.136**
17:01	**g**	**0.000**
18:1 undifferentiated	**g**	**23.523**
20:01	**g**	**0.138**
22:1 undifferentiated	**g**	**0.000**
Fatty acids , total polyunsaturated	**g**	**7.845**
18:2 undifferentiated	**g**	**7.782**
18:3 undifferentiated	**g**	**0.062**
18:04	**g**	**0.000**
20:2 n-6 c,c	**g**	**0.000**
20:3 undifferentiated	**g**	**0.000**
20:4 undifferentiated	**g**	**0.000**
20:5 n-3	**g**	**0.000**
22:5 n-3	**g**	**0.000**
22:6 n-3	**g**	**0.000**
Cholesterol	**mg**	**0**
AMINO ACIDS		
Tryptophan	**g**	**0.287**
Threonine	**g**	**0.688**
Isoleucine	**g**	**0.789**
Leucine	**g**	**1.472**
Lysine	**g**	**0.928**
Methionine	**g**	**0.362**
Cystine	**g**	**0.393**
Phenylalanine	**g**	**0.951**
Tyrosine	**g**	**0.508**
Valine	**g**	**1.094**
Arginine	**g**	**2.123**
Histidine	**g**	**0.456**
Alanine	**g**	**0.837**
Aspartic acid	**g**	**1.795**
Glutamic acid	**g**	**4.506**
Glycine	**g**	**0.937**
Proline	**g**	**0.812**
Serine	**g**	**1.079**

Source: USDA National Nutrient Database for Standard Reference, Release 21 (2008)

g = gram
mg = milligram
mcg = microgram
IU = International Units
Source: http://www.nutfruit.org/cashews

ANNEXURE – 12

NUTRITIONAL BENEFITS OF CASHEWNUTS

HIGH PROTEIN, HIGH FAT FOOD THAT IS TO BE AVOIDED EXCEPT FOR IN SMALL QUANTITIES"

NUTRIENTS:

- CARBOHYDRATES
- PROTEINS
- FAT & CHOLESTEROL
- VITAMINS
- MINERALS

CARBOHYDRATES IN CASHEWNUTS

- Provide energy to the body
- Content – 32.69gm/100gms – moderate source
- Glycemic index (blood sugar levels on consumption) – 22 - LOW
- Can be consumed by diabetics
- Should be consumed by athletes / long distance runners – need continuous supply of energy staggered over a period of time.

PROTEIN CONTENT OF CASHEWNUTS

- Protein quality v/s protein quantity
- Animal proteins are considered to be better due to presence of all essential amino acids
- Cashew protein = meat protein minus unhealthy saturated fat
- The presence of arginine (amino acid) in nuts enables production of nitrogen monoxide which is a vasodialator & helps reduce the risk of artherosclerosis.
- Good source of tryptophan (amino acid)
- Tryptophan converts to melatonin, which assists in sleep.
- Beneficial to people who experience sleep difficulties

FAT CONTENT OF CASHEWNUTS

- Monounsaturated fats(MUFA) which have a single double bond, are liquid at room temperatures

- Polyunsaturated fats (PUFA) which have more than one double bond, are divided into n-3 and n-6 fatty acids
- Saturated fats (SFA) have no double bond and are mostly solid at room temperatures.
- MUFA are known to be heart- friendly mainly for their ability to lower cholesterol by spurring the liver to clear cholesterol from the blood.
- MUFA also don't undergo oxidation easily to give rise to harmful free- radicals hence more stability.
- PUFA contain omega-3 fatty acids that aid in fighting heart diseases but due to their high unsaturation they can be oxidized faster and lead to change in taste.
- SFA tends to have a longer shelf life because the don't oxidise easily but are raw material for cholesterol production in the body, so can be harmful.

Nuts/ fatty acids (g)	CASHEW
Saturated fats	7.7
Mono-unsaturated	**30.2**
Poly- unsaturated	8.7

- Nuts don't contain cholesterol, as cholesterol is produced only in animal foods
- Penn State University researchers showed consuming 28gm nuts more than 5/wk – 25-39% decreases in coronary heart disease.
- High MUFA content along with bioactive substances like arginine, Mg, Zn, Cu exert beneficial effects.
- Diet rich in cashewnuts improves baroreflex, key reflex to maintain healthy blood pressure.
- Schutte and her team interpreted high MUFA content along with fiber & folic acid which benefit blood vessel function.
- Nuts included in weight loss diets – high satiety level.
- Dr. Joan Sabete, Chairman, Nutrition Department, California, - " those who eat nuts can be thinner." – replace other calories
- New York Times – Jan 2003 states " high fat diet based on MUFA doesn't raise triglyceride levels as does a low fat - high simple carbohydrate diet including breads, biscuits etc.
- Refined sugars are converted to triglycerides in the the body

VITAMIN CONTENT OF CASHEWNUTS

- PHYTONUTRIENTS – includes certain antioxidants – anti ageing
- Cashewnuts – 158 mg of phytochemicals/100gms – less cognitive decline – lowering risk of Alzheimer's disease.
- Alzheimer's association recommends nuts along with guidelines to reduce weight and limit food high in fat and cholesterol.

MINERAL CONTENT OF CASHEWNUTS

- Magnesium content 82.5mg/28gms of cashewnuts = 21% RDV
  Adequate Magnesium levels :
- Ensures healthy bones
- Prevents heart attacks (inhibits the release of thromboxane, a substance that makes blood platelets more sticky and apt to clot formation)
- Promotes normal sleep patterns menopausal women (protects against migraines, soreness & fatigue)
- Reduce the incidence of metabolic syndrome (diabetes, hypertension, CAD)

Copper content - 2.2mg/100gms of cashewnuts = 38.0% DRV

- Antioxidant defenses - Elimination of free radicals
- Iron utilization
- Development of bone and connective tissue
- Producing greater flexibility in blood vessels, bones and joints.
- Production of the skin and hair pigment called melanin
- Energy production - enzyme *superoxide dismutase*

Cashewnuts - 11% of body requirement of Zinc

Zinc also is essential for

- Immune response - fight diseases
- Integrity of cell membranes - skin
- Maintenance of DNA and RNA,
- Tissue growth and repair,
- Wound healing,
- Proper thyroid function,
- Blood clotting and cognitive functions.

Roses are red, Violets are blue, Cashew nuts are irresistible, So don't hesitate to consume a few!

ANNEXURE – 13

Promotion of Indian Cashews - *Bob Bauer, President*

U.S. Imports of Cashews from Major Exporting Countries (KG)
(2000-2005)

	2000	***2001***	***2002***	***2003***	***2004***	***2005***
India	*43,209,856*	*48,826,728*	*55,010,571*	*4,689,4847*	*58,412,964*	*51,642,822*
Brazil	*24,444,612*	*20,902,173*	*20,059,901*	*26,297,298*	*29,799,404*	*24,990,745*
Vietnam	*10,119,205*	*12,899,160*	*20,158,058*	*27,979,844*	*41,272,650*	*34,276,577*
Indonesia	*106,2174*	*810,050*	*492,771*	*517,373*	*681,651*	*1,486,512*
All Others	*3,659,389*	*1,334,939*	*1,586,109*	*1,402,054*	*1,488,085*	*2,075,828*
Total	*82,495,236*	*84,773,050*	*97,307,410*	*103,091,416*	*131,654,754*	*114,472,484*

Source: U.S. Department of Commerce

Generic vs. India-Specific

- Generic Promotion Allows for:
  - Use of others' resources; funds, research, contacts, etc.
  - Targeted messaging about the product, without a focus on the origin.

- Generic Promotion *Doesn't* Allow for:
  - Focus on Indian Product
  - Focus on India
  - Complete Control of the Message
  - Complete Control of How and Where the Message is Delivered

- India-Specific Promotion Allows for:
    - Chance to Play Up the Romance of a Different Culture.
    - Opportunity to Tout India's Rich Cashew-Producing History.
    - Complete Control of Messaging.

Promotion Must

- Include Health Message.
- Highlight Positives about Cashews and/or Origins Without Speaking Negatively About Other Nuts or Origins.
- Be Tailored to Specific Markets

Other Considerations

- Supply Issues
- Quality Issues
- Honoring Contracts & Arbitration Awards
- AFI as a Partner

Vision 2020

- Full-Scale Promotion Program in U.S.
- Funded by Tax on Exports (ex. 1 cent per lb.) in Producing Countries.
- Generic Program Funding Would be Weighted. India-Specific Funding Would be Decided by CEPC.
- If a Generic Program, Organization with Representatives from all Producing Countries Would Set Policy.
- Importers Would be a Part of the Organization to Offer Local Expertise.
- A U.S. Agency Would be Used to Ensure The Right Message was Being Delivered in the Most-Effective Manner.
- With the Help of an Effective Promotion Program and a Renewed Commitment to Quality and Professionalism by All in the Industry, U.S. Cashew Imports Will Be at an All-Time High With the Best Yet to Come.

…….....

ANNEXURE – 14

http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf

ANNEXURE – 15

BRAND FOR PROFIT COMMODITIES TO PERISH

WHAT IS A NOT A BRAND?
CAN COMMODITIES BECOME BRANDS?
ALL BRANDS ARE COMMODITIES!
WHY BRANDS?

CASE STUDY 2
BOLA'S - Processor & Exporter of Cashews
Indian Growth Story - Opportunity in the premium snacking market

PROBLEMS & OPPORTUNITIES - CASHEW INDSUTRY

Arbitrage of cheap labour

No differentiators
final product looks, smells, tastes the same
No value addition
No market leverage
No innovation

CASE STUDY 3

The debate - Labour v/s mechanization and automation
Wines / Cheese

CASHEW INDSUTRY POSITIONING POSSIBILITIES

Mechanized process factory	**v/s**	**Hand selected**
Large volumes, margins	**v/s**	**Low volumes, low margins large**
Sterile, clean, quality	**v/s**	**Warm, human**
Nature unfriendly	**v/s**	**Eco-friendly**
People unfriendly	**v/s**	**Job giver**

NO DIFFERENTIATORS
CASE STUDY 4
Differentiation based on Geography

INDIAN CASHEW INDUSTRY -
BRAND POSITIONING BY GEOGRAPHY

GOAN SUSEGAD CASHEW
KONKAN CASHEW
KERALA GOD'S OWN CASHEW

No two cashews are alike
– rain, sun, soil, geography, imagery, farming practices

Eg: Darjeeling tea

CASE STUDY 5
VALUE ADDITION
Forms, variants, options, innovations
Peanut industry

RECONSTITUTING CASHEW FOR VALUE ADDITION

Cashew Butter	Cashew Crisps
Cashew Powder	Cashew Paste
Cashew Pops	

CASHEW – LEVERAGING THE INDIAN MARKET
Increase usage and consumption

INDIAN MARKET OPPORTUNITY

300 million middle class	**Traditional lifestyle product**
Increasing incomes / affordability	**Experimental in nature**

HYPOTHETICAL KEY TASK
Increase consumption of 300 million by 100 gms per capita every year for the Next 5 years

INCREASE CONSUMPTION - RECIPES

Recipe booklets	**Website**	**Chef interactions**
Restaurant Promotions	**Cooking contests**	**Heat & Eat dishes**
Magazine columns	**Kids recipes**	**Party recipes**
Desert recipes	**Quick Snack recipes**	

INCREASE CONSUMPTION - DIWALI

Innovate new packs	**Reinforce tradition**
Promote gifting	**Enlarge culture base**

Create: Valentine, Father's day, Christmas, Party gifting ideas

THE TASK > COMMODITY PRODUCER > INNOVATOR > MARKETER > BRAND BUILDER

QUESTIONS?
WHAT BUSINESS ARE YOU IN?
I AM IN THE BUSINESS OF TRADING / EXPORTING / MANUFACTURING / SELLING CASHEWS

FILL IN THE BLANKS

An apple a day - - - -
A glass of Milk gives - -
Spinach makes me - -
Oranges supply - -

FILL IN THE BLANKS

Cashew nuts are - -
GENERIC / BENEFIT BRANDING
'Heart friendly' Cashews
'Strong bones & teeth' cashews
'Energy' cashews
'Anti-oxidant, anti-ageing" cashew

BRAND MISSION

I AM IN THE BUSINESS OF PREVENTING HEART ATTACKS, ENERGISING PEOPLE, STRENTHENING BONES.

ANNEXURE - 16

THE ROLE OF THE AFRICAN CASHEW ALLIANCE IN THE GLOBAL CASHEW INDUSTRY - *Christian Dahm, African Cashew Alliance*

Thinking Africa… ….and what else…? Business….!!! Cashew Business!!!

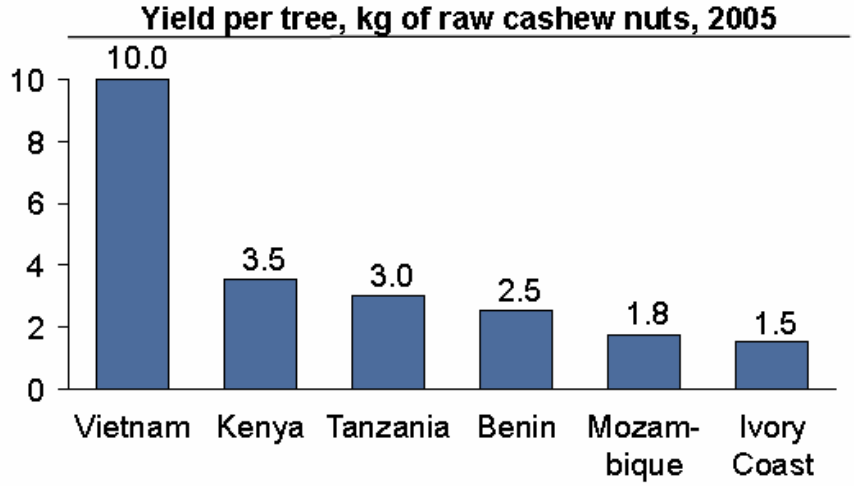
Cashew in Africa

- Cashew is grown in 16 African countries
- 2 seasons (Feb-June and Sep-Jan)
- biggest RCN producers

Côte d'Ivoire	340,000 MT	Guinea-Bissau	100,000 MT
Tanzania	80,000 MT	Nigeria	80,000 MT
Benin	60,000 MT	Mozambique	60,000 MT

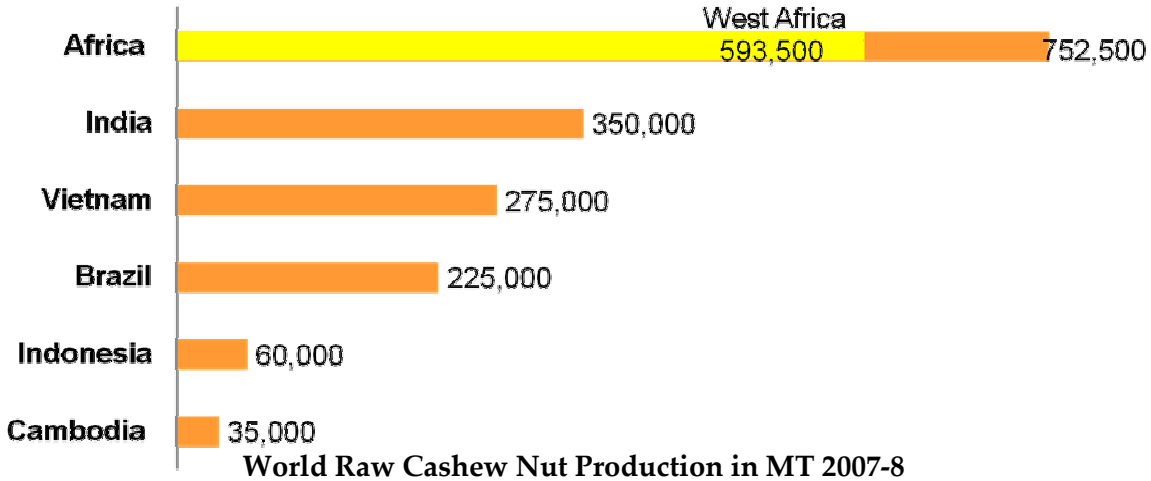
Cashew in Africa

- Cashew is a source of income for 2.5 million smallholder farmers in Africa
- Low yield, scattered production
- Little knowledge of pre- and post-harvest handling of raw nuts
- Little awareness of price fluctuations, quality-price relationship and global integration of industry



Cashew in Africa

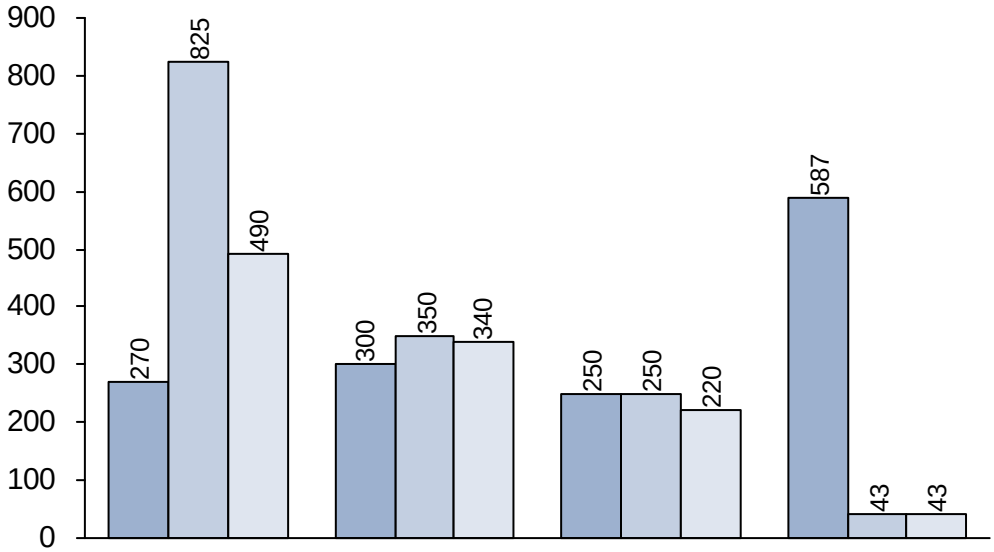
- Africa is the biggest producer of raw cashew nuts, about 40% of the world's crop is grown here



World Raw Cashew Nut Production in MT 2007-8

Cashew in Africa

- today, only 10% of Africa's RCN crop is processed in Africa
- Processing in Africa could generate US$250 million added value
- market growth potential based on health benefits, fast growth in Asia and Middle East, popular taste of cashews



Cashew nuts production, processing& exports, thousand of metric tons, 2006

- MoU: 23 founding members in 2005 from farmers to retailers
- Mission & Vision: A competitive African Cashew Sector

Objectives:

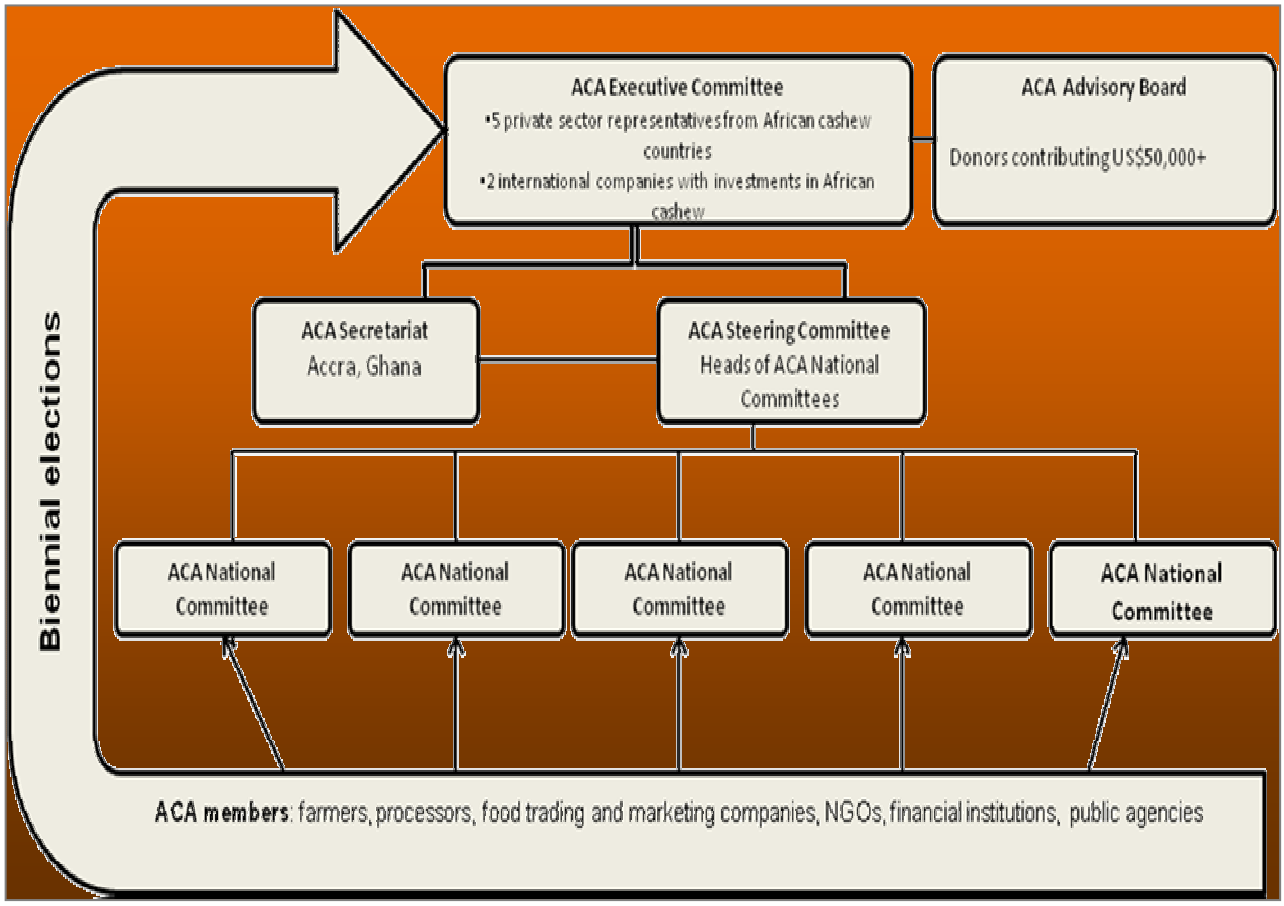
- Increased farmer income
- Increased processing quality and quantity
- Improved regulatory environment
- Increased consumption

The ACA Today

- More than 80 paying members in 30+ countries
- Registered as non-profit in Ghana in 2007
- Secretariat housed by USAID's West Africa Trade Hub, Accra, Ghana
  Funded by USAID, GTZ-ACi, private sector
- Executive Committee - 7 industry representatives

President: Carlos Costa (Mozambique)

ACA Organizational Structure



Activities

- Market Linkages & Promotion
  - farmers-buyers/processors-importers-retailers
  - Promote industry investments
- Technical Assistance, training and advocacy
- Disseminate information
  - Country updates
  - Market, price and consumer information
  - Website, newsletter
- Annual Conferences

THEME: VALUE AND EFFICIENCY

- 250 participants from 25+ countries
- Brazil, India, Vietnam participated
  - Talks about global cashew body
- Workshops on raw nut quality, processing and food safety, access to finance and innovation & marketing
- Business2Business meetings: buyers, processors, traders, investors, banks
- Field trips to Olam processing plant and Abidjan port and warehouses

Leveraging Success…the African Cashew Initiative

- Gates Foundation 4-year project in Benin, Burkina Faso, Côte d'Ivoire, Ghana and Mozambique
- $25 million technical assistance to be matched by $25 million in private sector contributions, in-kind, cash, investments
  - Multinational private label companies, retailers, traders
  - Processors
  - Equipment suppliers
  - Service providers
  - USAID and German Technical Cooperation (GTZ)

Objectives

- raw cashew nut production (increased farmer income)
  - farmer training: better quality and yield
  - Improved cooperative management and information: farmer bargaining power and efficiency gains
  - Farmer-buyer/processor linkages, specialty markets: price premiums

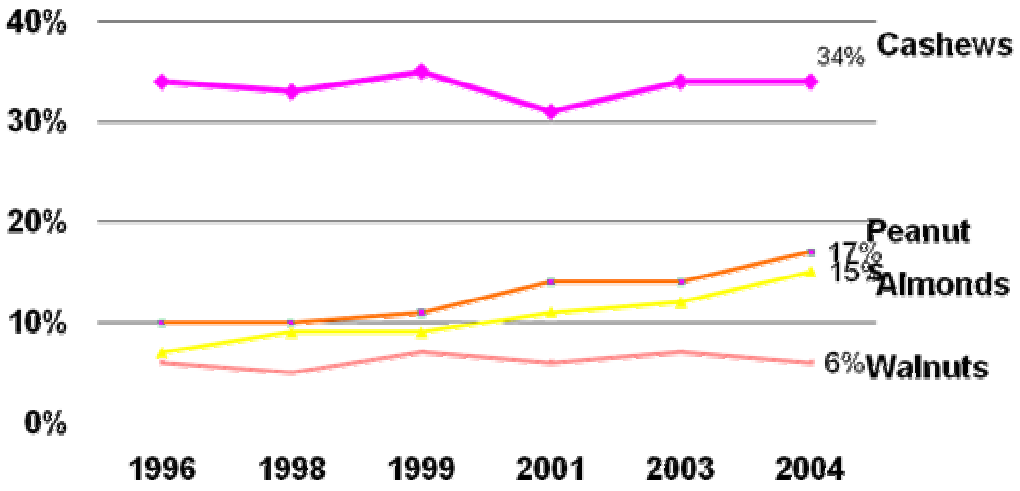
- Cashew processing (long-term investments)
  - Training and technical assistance: volume and quality increases
  - Buyer-linkages
- Business environment
  - Transparent policies in support of value addition
  - Business advocacy by cashew stakeholders in producing countries

Get involved!

- Become an ACA member!
  - Access to ACA members and network of 1000+ cashew business contacts
- See you at our Annual Conference 2010!
- Invest in cashew in Africa!
  - ACA facilitates international-local joint ventures
  - Technical assistance from ACA members and ACI
- Let's work on an agenda of common objectives

A World Cashew Organization

- **Growing the market: the world's favorite nut**
- **Low awareness of health benefits**



A World Cashew Organization

- Ground rules for food safety and standards
- Profile the sector to governments (food security, by-product value, employment, rural development etc.)

ANNEXURE - 17

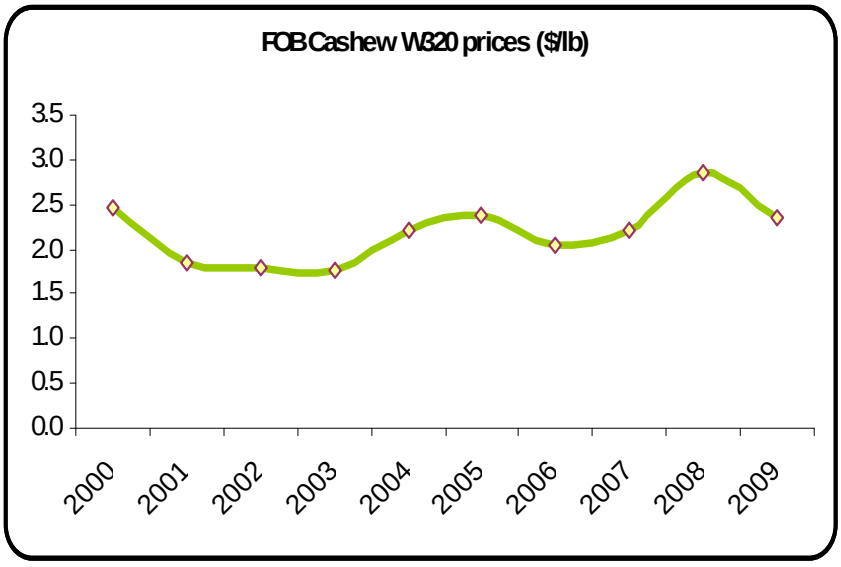
Long Term Trends Shaping Global Cashew Industry

Foretell Business Solutions Private Limited

Presentation Flow

- L T (long term trends) in price and production
- L T in cost structure
- L T in consumption and marketing
- Lessons from other crops
- Summary

Long term trends in price and production

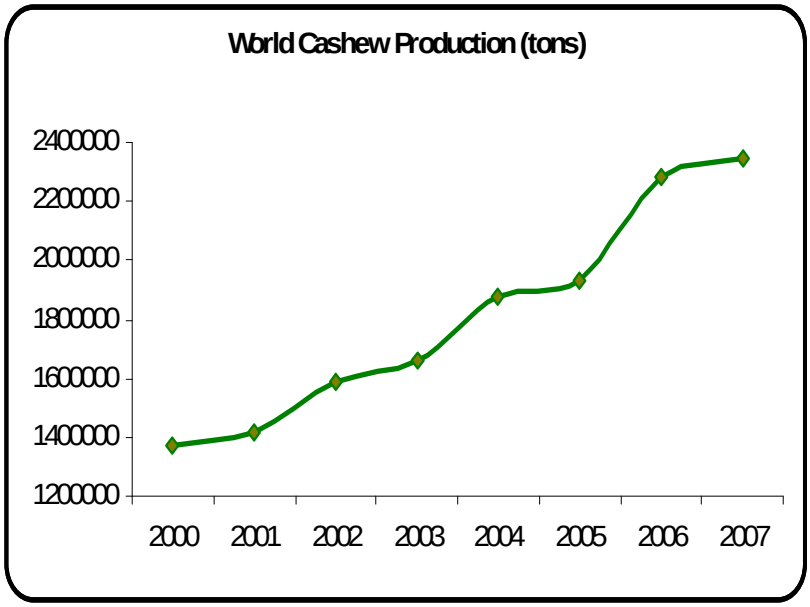


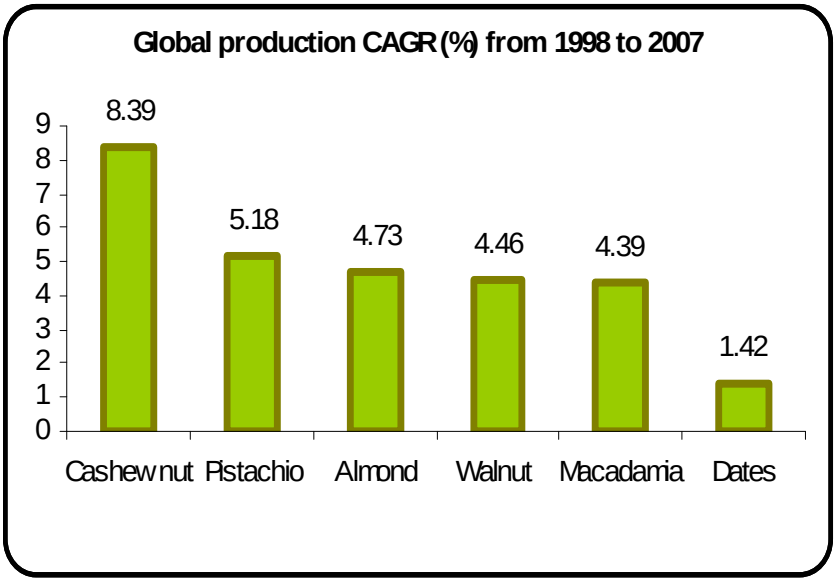
Global cashew prices were in a range
Source: www.CashewInfo.com

Commodity	CAGR (2000-08)
Wheat	12.83%
Coffee	13.06%
Corn	10.01%
Sugar	8.58%
Almond*	5.5%
Pista	8.43%

- Cashew prices were range bound between $1.7-2.4 per lb (w-320 FOB India) during 2000 – 2007. However, 2008 was exceptional ($2.86 /lb)
- Prices grew at a CAGR 2.56%. of during the period.
  2001 marked the commencement of boom period for commodities
  Despite a commodity boom, why cashew prices grew modestly?

Global Raw Cashew Nut production grew at 8.5% !!!



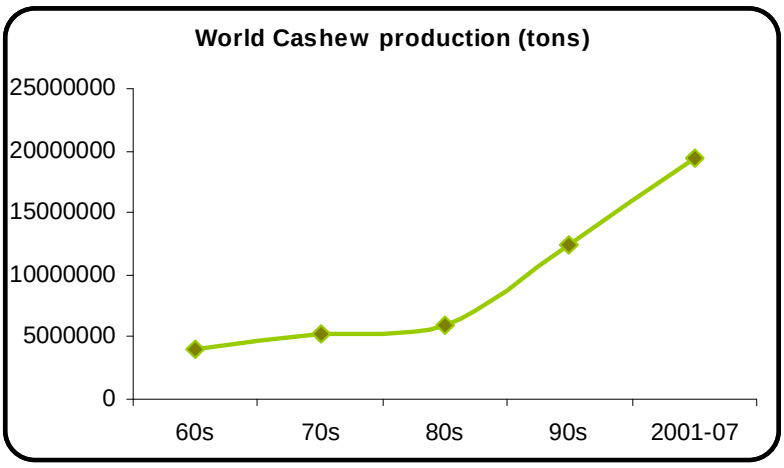


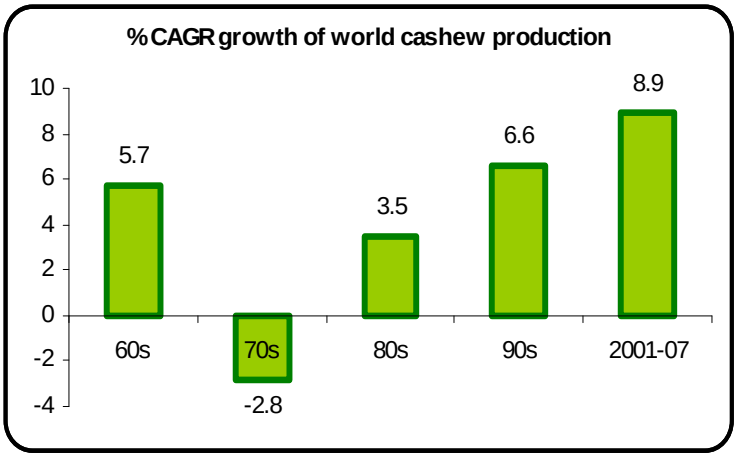
Source: www.CashewInfo.com

- Among the high value cash crops, Cashew is the fastest growing commodity at a 8.5% CAGR. Global agri-growth is around 3% pa.

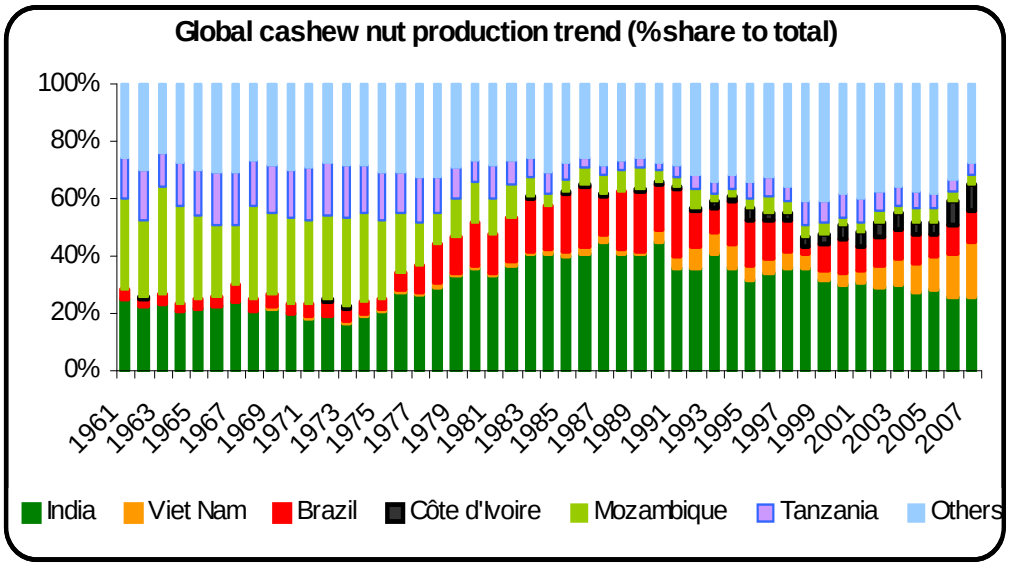
- Asian countries alone contribute about 65% of global RCN production followed by African countries, with a share of 30% in the total production.

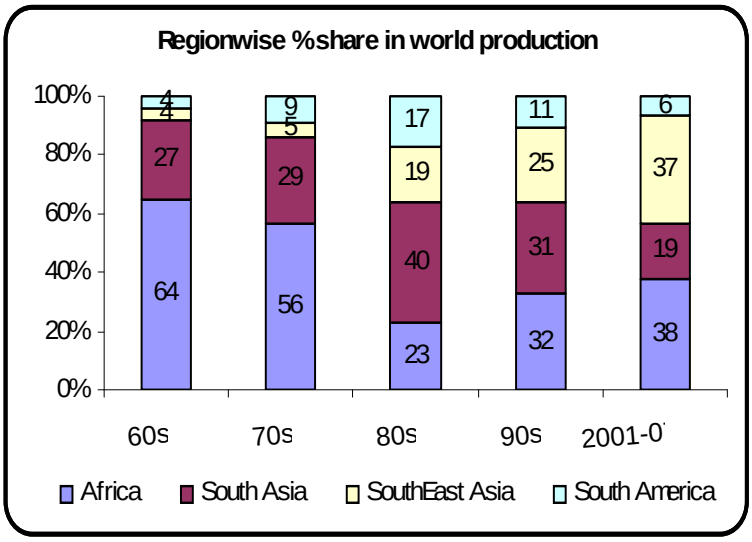
Production accelerated since 90s





Share of top producers





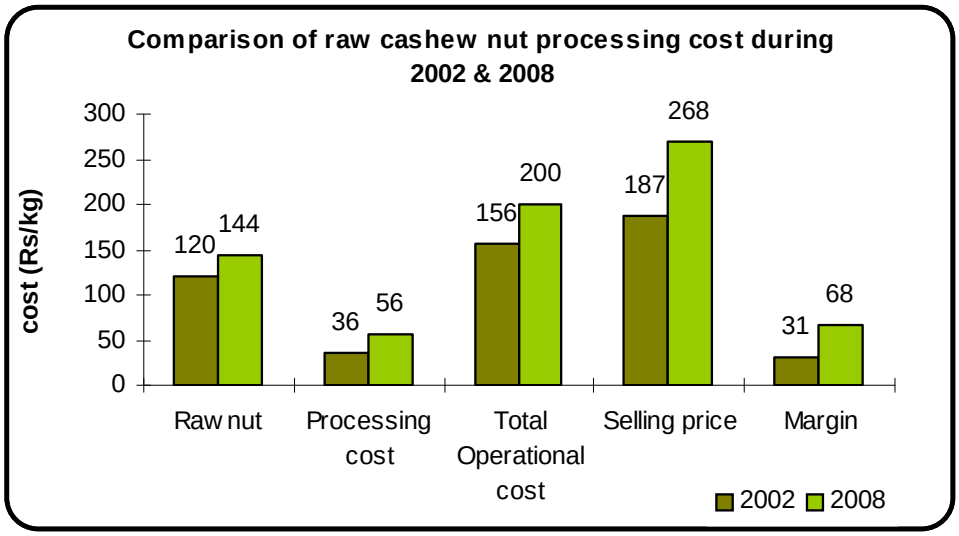
- Vietnam outperforms every other producer with a huge productivity of 2700 kg/ha (India 670kg/ha). This would sustain their cost competitiveness going forward.

Comments on LT global RCN production

- Production growth rate is too high.
- It has to be matched by demand growth, else serious erosion in value can be anticipated.
- Emerging markets have come to the rescue clocking a significant demand growth. Cashew consumption in India, in specific, grew at 8.5% between 2000 and 2008.
- However, sustained demand needs to be created through increased penetration in the existing market and entering potential new markets.
- Do we have a marketing plan that would sustain production?

Long term trend in processing cost & labour

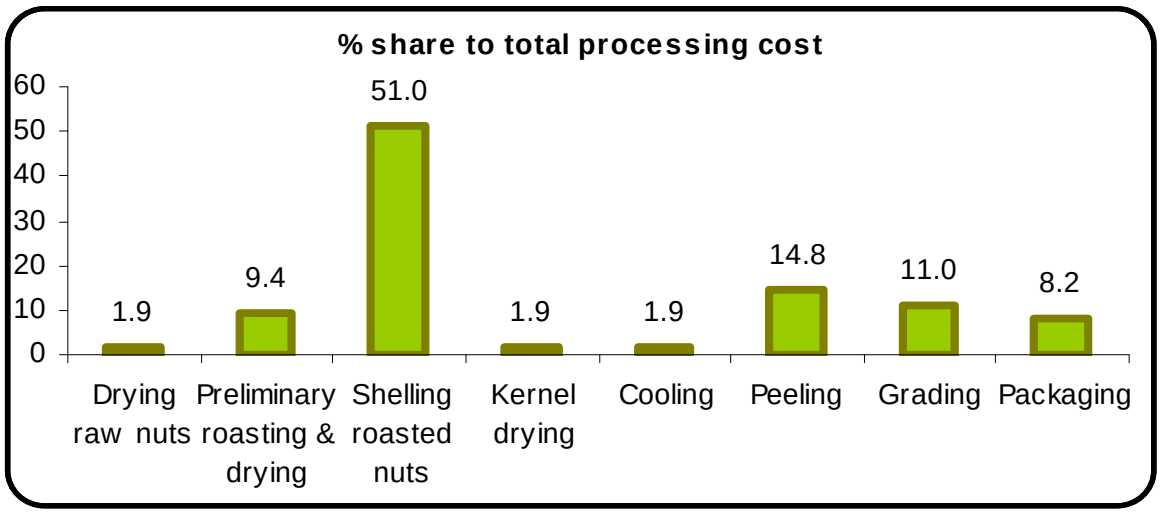
Operating costs comparison between 2002 and 2008



- In 2002 the cost of processing was **Rs.9.16/kg** of raw nut while it is **Rs.14.20/kg** in 2008
- Current wages for male labours who engaged in drying of nuts and roasting is **Rs.85/day.**
- EBDIT margin increased; however finance cost too increased with increase in RCN prices

RCN to kernel conversion is highly labour intensive

- Nearly 60 % of processing cost incurred goes towards labour charges.
- Cashew industry in India employs around 3 lakh people (direct employment) and majority (90%) are women.
- NREGS is likely to put a pressure on wage rate and labour productivity
- Labour migration to service sector cannot be ruled out. It could also put cost pressure.
- Key challenge is management of overall costs through technology and skill retention



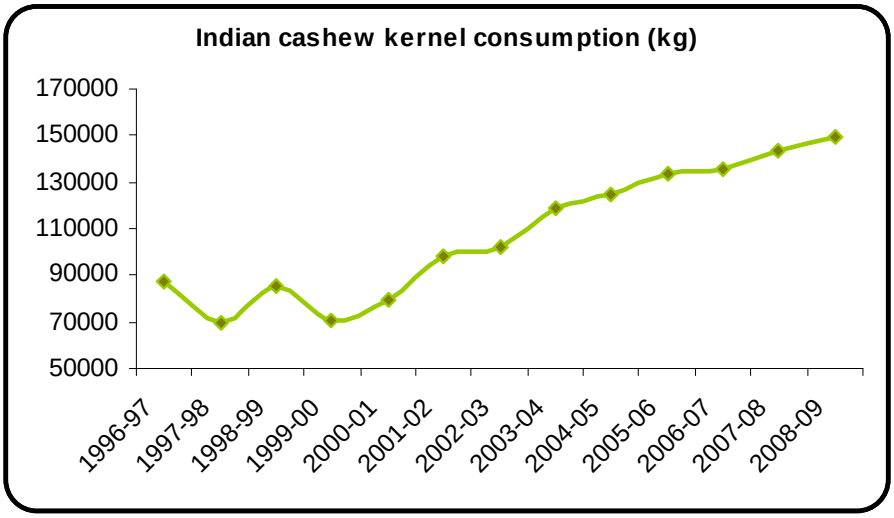
Source: www.CashewInfo.com

A word on freight

- 25% of the global RCN production travels about 8000 km by sea, to be processed outside the country of origin.
- About 35% Kernel production travels 10000 – 12000 km before it is consumed.
- How many food items that you know of have this level of logistic intensity?
- Last year spike in crude oil prices is not an aberration.
- Higher freight charges as a result of fuel costs escalation could result in move towards in-situ value addition, local sourcing, relocation of processing units. The supply chain as a result is likely to shrink.
- Within the country, in-bound and out-bound logistic could be redefined in a manner that is less energy intensive.
- Carbon-foot print on food items could impact consumption adversely in some select markets

Long term trend in consumption and marketing

Indian cashew consumption grew at 8.5% CAGR



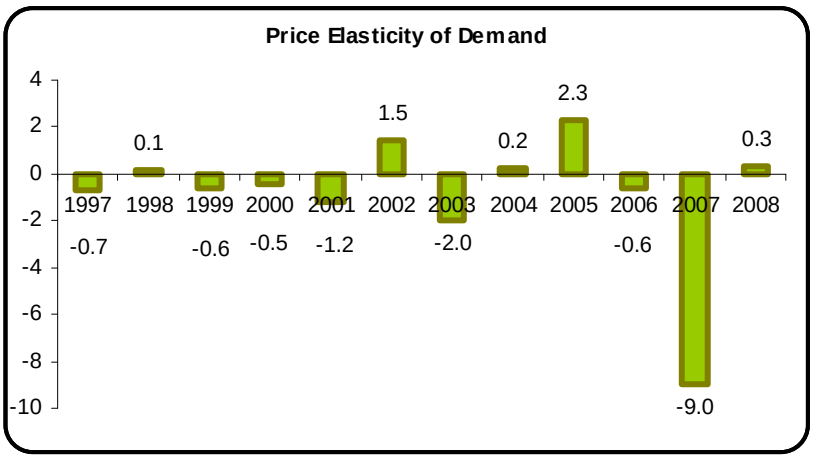
Source: www.CashewInfo.com

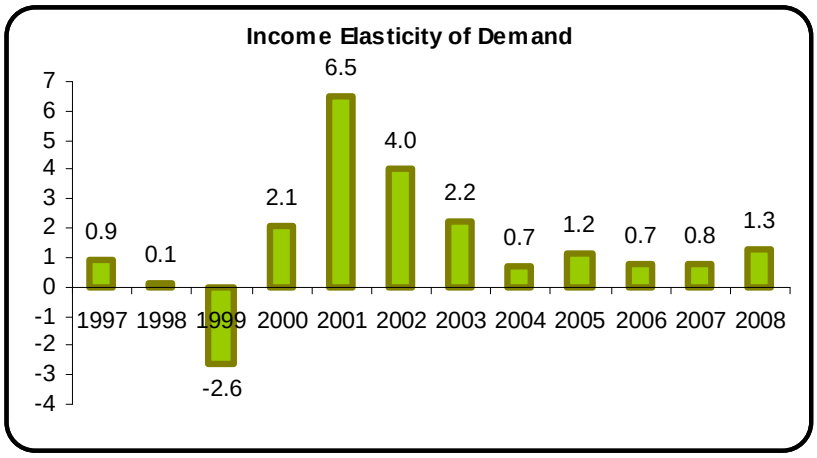
- Indian cashew consumption is growing at a 8.48 % annually in the last 10 years
- Not only cashew, consumption of almond and pista also grew stupendously during the same period.
- Ideal demographics and income growths have driven the consumption.

Price & Income elasticity of demand

- Price/Income elasticity of demand describes the relationship between changes in quantity of a commodity demanded and changes in the price for that commodity or the changes in the income of the consumer.
- Generally for all commodities except for the essential commodities that do not have substitutes, the price elasticity is high.

Drivers of consumption





- By and large, stable price of cashew is conducive for demand for cashew. Volatility in prices affect demand.
- Demand is more susceptible to changes in income. Higher income leads to higher consumption and vice versa.
- 2004 -2007 was high economic growth period during which demand is seen to respond less to income changes.

Promotion should match production

- Paramount Pistachio US $ 120 million promotion budget in the last 10 year leading to 2008.
- California walnut commission US $ 1 million grant + matching industry fund to promote walnut to German women between 25 – 49 years.
- Almond board had a grant of US $ 16 million for three year period from 2003-2006, which is but a small part of their marketing budget.
- Cashew is collectively under promoted and under marketed.

Indian cashew consumption – highly skewed and urban centric

- Urban consumption is 6 times higher than the rural consumption where the population density is 3 times higher in rural.
- Based on our past consumer survey, we infer that women and children are the key consumption drivers.

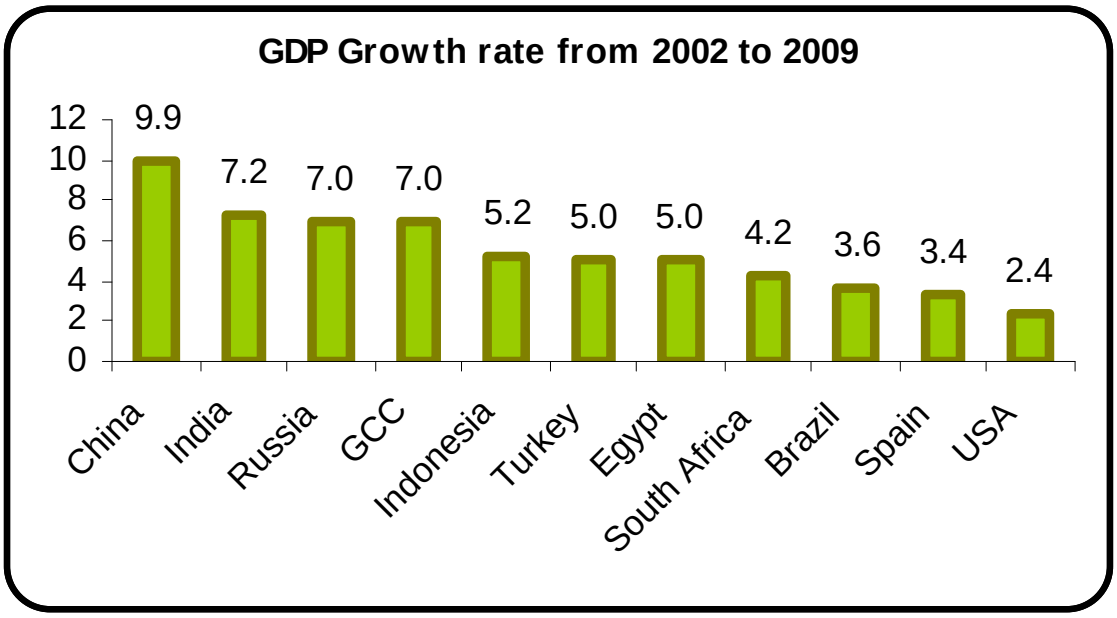
Cashew consumption in tons

	2004-05	**1999-2000**	% Change
Rural	17820		
Urban	111958	34334	226

Source: National Sample Survey

Rural opportunity is waiting to be tapped, but the marketing mix could be entirely different

Potential Markets for Future



Markets such as India with right demographics (young population and high GDP growth rates are the new opportunities

Lessons from other crops

Indian Sugar industry

- Like cashew industry, sugar is also a not vertically integrated industry.
- Plantation, manufacturing, distribution and marketing are independent businesses.
- Input and output are controlled and heavily regulated.
- Early 90s sugar constituted 90 - 95% of the revenue of the sugar mills.
- Today, sugar accounts for 50 -55% of the sugar mills revenue. Rest comes from (1) electricity generation, (2) ethanol and (3) carbon credit.
- The 90s saw corporatisation of many of these mills. Raising capital for expansion was facilitated through public listing of stocks.

Changes in Rice Milling industry

- Over 20000 mills with sub-optimal performance. Of this 5000 mills are relatively progressive.
- Even for the progressive ones, rice was the single revenue item accounting for 95% of the revenues in 90s.
- Today, besides rice, integrated rice mills bring out rice bran oil, generate electricity from rice husk, and claim carbon credit. Rice revenue accounts for 75% of these progressive mills today.
- The transformation is so significant that Laxshmi Overseas Industries Limited has become Laxshmi Energy and Foods Limited

Lessons for Indian cashew industry

- Branding and positioning the core product offering
- Corporatisation
- Extracting value from waste, by-products

Indian cashew industry - Value addition possibilities

	Product	Current Usage (%)	Value realized (Rs. cr)	Value potential
Plantation	Organic Manure	-	-	Rs.400 cr
	Agro forestry	-	-	Rs.5 cr * recurring
Processing	RCN (domestic)	Kernel (100%)	Rs.2750 cr	Rs.7500 cr
	RCN (imported)	Kernel (100%)	Rs.3500 cr	
By-products	Cashew Apple	Fenny (8%)	Rs.55 cr	
		Alcohol (50%)		Rs.500-600 cr
	CNSL	Cashew Oil (25%)	Rs.80 cr	Rs.300 cr
				Value addition(Rs.600 cr)

* assuming 10% under agro forestry

Estimated incremental investment about Rs. 500 - 800 cr

ANNEXURE – 18

Introduction - The Trade Era

- Imports of cashews from India into the Arabian Gulf dates back to many centuries
  - Cashews were transported by sea travelers particularly traveling to the Arabian Gulf and to Western Arabian ports
- It became a part of the trade for Indian traders who settled down in the Arabian Gulf & Oman more than a 100 years ago

Imports into Arabian Gulf

- Before the advent of containers, imports from India were carried out by country kraft vessels & bulk ships which were irregular leading to infestation in the product
- Imports were negligible until the 70's
- Formation of the new Gulf States gave way to fast paced economic growth focusing mainly on trade
- This led to the increase in consumption of cashews particularly by roasters
- Participation of reliable exporters during the 80's gave a big boost to import of cashews
- Consistency in quality maintained by major exporters spread awareness and increased demand of Indian cashews in the Gulf region

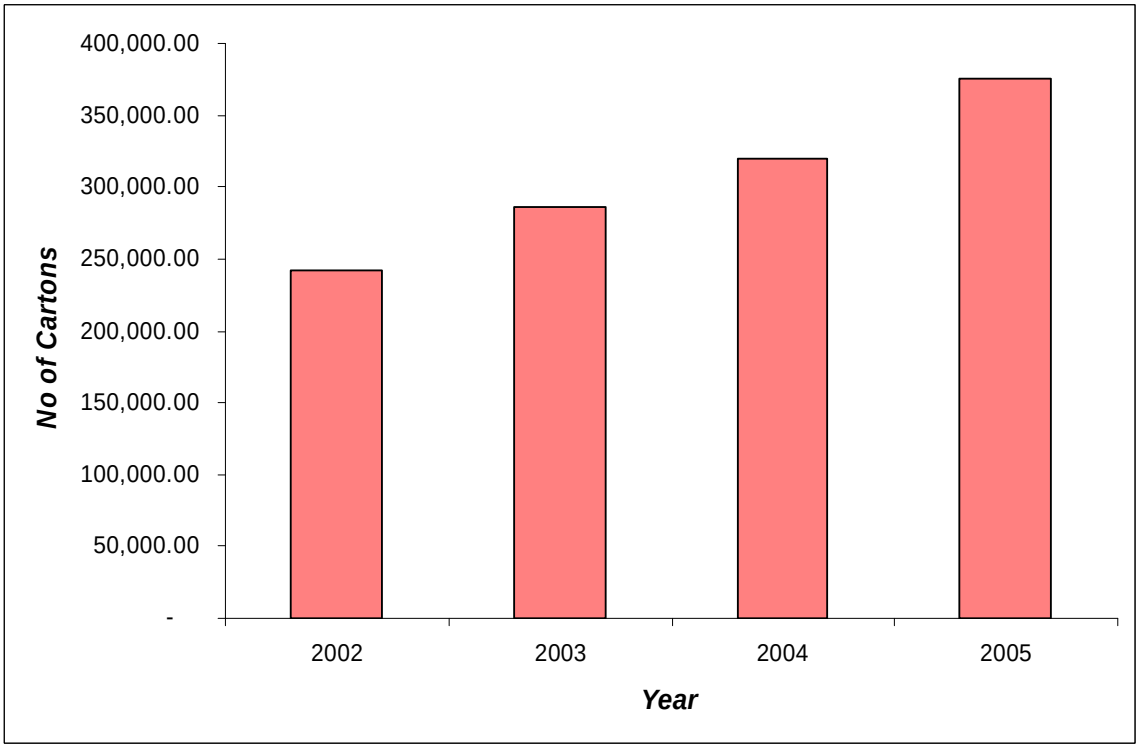
Present situation – Middle East

- The steady growth in imports from the mid 80's has led to the Middle East importing more than 750,000 cartons of Indian cashews a year
- In 2005, Dubai alone imported about 450,000 cartons and hence my presentation will focus mainly on imports into the UAE
- Cashew kernels are imported from India, Vietnam & Brazil in which India has a 90% share
- Demand is mainly for wholes i.e. W320 & W240

Present Situation – UAE

- Population of UAE is roughly 5 million
  - It is growing due to favorable living conditions and governments inclination towards promoting tourism
- Almost 60% of UAE's imports are for re-export.
  - Due to its strategic location, it caters to a re-export market of more than 100 million people mainly in the GCC and Persian Gulf
- Jebel Ali Free Zone is one of the largest free zones in the world and the port handles almost 8 million TEU's per year making it the 9th largest in the world

Import of Indian Cashews into Dubai



Trends of Indian Cashews

- Imports of cashews have been increasing steadily at an average rate of 15% per year
- Improvement in the standard of living has led to the increase of consumption of dried fruits, especially Cashews & Almonds in the Middle East region
- Another factor contributing to increase is the aggressive promotion of tourism by the UAE government.
- Competitive prices of Indian Cashews when compared to other dried fruits such as Almonds & Pistachios

Main Consumers of Cashews

- Traders feeding major re-export destinations & retailers
- Festival demand
    - Eid, Nourous, New Year & Diwali
- Traditional Roasteries
- Food packaging Industry
    - Sweets
    - Ice Cream & Confectionary
    - Direct household use

The Rule of "Pink"

- It has become a thumb rule that all cashews imported into the Middle East should be in pink color.
- Many importers have tried to import cashews in Green & White color cartons but have failed.
- This concept was initiated by a major exporter to create a brand in the Middle East

Standardization in Quality

Apples vs. Oranges

- Cashew nuts which were initially regarded as a premium product is now sold as a commodity.
- Traders only care about the price hence leading to manipulation in quality in order to compete
- Manipulation is taking place in Grading, Size, Weight and Moisture
- This does not allow a level ground for competition!

Effects of other Dried Fruits

- The Middle East is mainly a roastery market
- Last year the heavy consumption of Cashews was mainly due to high prices of Almonds & Walnuts
- Decreasing prices of Almonds will surely have an effect on consumption of cashews if prices remain high

Quality Issues

- Old unhygienic tins being used
- Quality of Cartons can be improved
- Fine line of differentiation in grades
    - Supplying of SW grades instead of W grades
    - Shipping sub standard quality has become a regular phenomenon to compete with known brands in the market
- Insect damage & infestation

Threat of New Entrants

- Vietnam imports into the UAE were negligible during the last few years, but this has gradually increased due to their good appearance and competitive price
- Traders have started accepting Vietnam Cashews and some roasters have switched from Indian to Vietnam cashews particularly for lower grades and brokens
- New Countries like Tanzania, Mozambique and West African countries have also started exporting Cashew Kernels

Potential Areas of Development

- Flexi Packing which is very hygienic and cost effective has not become popular inspite of its repeated introduction.
- Roasters & Traders prefer tins
- Arabs in general are very traditional and difficult to convince.
    - Pink Cartons & Tins
- To change attitude from Tins to Flexi bags will take atleast 2 generations

Way Forward

- Follow example of other nuts
    - Promote cashews as important health supplement
- Spread awareness amongst public

"Target the Taste Buds"

ANNEXURE – 19

Cashew Development in India

ACHIEVEMENT IN CASHEW DEVELOPMENT

- An Area of 1.618 Lakh ha brought under New Planting
- Senile area of 80,286 ha replanted with HYVs
- Production increased from 4.50 Lakh MT to 6.95 Lakhs MT
- Productivity increased from 642 Kg/Ha to 780Kg/ha
- Developed Infrastructure for planting material generation
- Intensive TOT programmes conducted
- Technology demonstrations established in the farmers field.
- 2200 cashew processing cottage industries
- Use of cashew apple popularized

TARGET AND ACHIEVEMENT UNDER MACRO MANAGEMENT (2000-01 TO 2004-05)

Name of Programme	TARGET		ACHIEVEMENT	
	Phy.	Fin.	Phy.	Fin.
New Planting & Maintenance(Ha)	90483	2536.777	82382	2995.356
Replanting & Maintenance (Ha)				
SH*	39715	1843.964	33280	1553.090
Corpn.	5128	210.510	4922	158.380
Crop Protection(Ha)	16344	160.3302	15909	154.070
Transfer of Technology				
Demo Plots(Nos.)	2527	130.633	2048	93.943
Farmers Trg.(Farmers)	40850	66.351	37260	54.012
Plant Pro.Campaing(Nos.)	520	45.475	418	33.811
Infrastructure Built up				
Estt. Of Reg. Nur (Nos.)	71	92.600	59	62.001
Dev. Of Mktg./processing amenities(Nos.)	1252	291.496	1105	161.041
Other promotional efforts	--	436.905	--	379.683
Total	--	5815.041	--	5645.387
** SH-Small Holder*				

TARGET AND ACHIEVEMENT UNDER NHM PROGRAMMES (2005-06 TO 2008-09)

Name of Programme	TARGET		ACHIEVEMENT	
	Phy	Fin	Phy.	Fin.
New Planting & maintenance(Ha)	102483	8229.123	79404	5484.941
Replanting & (SH)* Maintenance	61422	7521.867	27849	2707.620
Corpn.	14610	1466.610	14235	1351.932
Model Nurseries (Nos.) Big & Small	36	207.000	12	80.307
Prodn. of planting material(Lakh Nos.)	13.481	47.830	12.659	17.710
Frontline Demo(Ha)	1301	187.052	493	71.251
Trg. Activities(PHM) Value addition (Nos).	185	24.722	140	13.321
Pest & disease management	--	9.300	--	9.300
Other promotional efforts	--	130.818	--	87.591
Rejuvenation (Ha)	2170	162.750	1940	145.500
TOTAL	17987.072		9969.473	

Area, Production and productivity - 2008-09

State	Area (in 000 ha)	Production 000′ MT	Av pdty. (Kg/ha)	State	Area (in 000 ha)	Production 000′ MT	Av pdty. (Kg/ha)
Kerala	70	75	1000	Andhra Pradesh	182	112	620
Karnataka	107	60	560	Orissa	137	95	700
Goa	55	30	550	West Bengal	11	11	1000
Maharashtra	170	225	1400	Others	30	19	630
Tamil Nadu	131	68	520				

Area Expansion and Re-planting of Cashewnut- 2000-2001 to 2008-09

State	New Planting	Re planting	State	New Planting	Re planting
Kerala	7139	29563	Jharkhand	1330	-
Karnataka	27197	7121	Chattisgarh	6060	-
Goa	2524	7468	Gujarath	111	-
Maharashtra	42160	598	Assam	2385	-
Tamil Nadu	28705	13832	Manipur	70	-
Andhra Pradesh	11758	9515	Tripura	464	-
Orissa	28743	12040	Meghalaya	1225	-
West Bengal	271	149	Nagaland	1640	-

MAJOR RESEARCH ACCOMPLISHMENTS

- Release of 37 High Yielding Varieties.
- Standardization of soft wood grafting.
- Standardization of agro techniques for different agro climatic conditions.
- Evolving effective pest and diseases management practices.
- Cashew Apple utilization.

INDIAN CASHEW TRADE

	CASHEW KERNEL (Export)		CNSL (Export)		RAWNUT (Import)	
Year	Quantity	Value	Quantity	Value	Quantity	Value
2002-03	104137	193302	7215	925	400659	123657
2003-04	100828	180442	6926	703	452898	140093
2004-05	126667	270924	7474	791	578884	218324
2005-06	114143	251486	6463	721	565400	216295
2006-07	118540	245515	6139	1029	592604	181162
2007-08	114340	228890	7813	1197	605970	174680
2008-09	108131	295024	6976	1679	605654	263178

STATUS OF SENILITY AND POTENTIALITY FOR EXPANSION

State	Potentiality for New planting (ha)	Senile area for replanting (ha)
Kerala	50,000	42,000
Karnataka	2,00,000	53,000
Goa	50,000	42,000
Maharashtra	3,00,000	6,000
Tamil Nadu	1,00,000	55,000
Andhra Pradesh	1,00,000	65,000
Orissa	4,00,000	57,000
West Bengal	30,000	-
Chhattisgarh	40,000	-
North East States	1,00,000	-
Gujarat	25,000	-
Jharkhand	50,000	-
A & N Islands	2,500	-
Total	14,47,500	3,20,000

INFRASTRUCTURE – Nurseries

- 41 Nurseries in Public Sector
- 64 Nurseries in Private Sector
- Multiplication capacity is 100.00 Lakhs clones p.a.
- Potential area coverage is 50,000 HA p.a.

SWOT ANALYSIS

Strength

- High Yielding Varieties
- Productive technologies
- Infrastructure – Quality Planting materials
- Well organized processing sector
- Good network of cashew research org.

Weekness

- Senile Plantations – 3.20 lakh ha
- Negligence in selection of Planting material
- Inadequate TOT
- Non priority status
- Absence of dwarf varieties.

Opportunities

- Availability of vast area in traditional and non traditional states
- Value addition for export
- Ever increasing domestic market

Threats

- Lower rate of productivity
- Competition from other countries
- Increasing senility of plantations
- Occurrence of Stem and Root borer
- Lack of awareness among farming community

STRATEGIES

- Massive replanting programme
- Abolition of tender system – Planting material
- Procurement from approved sources
- Area expansion in non traditional areas
- Organizing intensive thematic campaigns
- Value addition and by product utilization
- Intensive farmers training programme
- Renovation of traditional processing industries
- Involvement of processing industries in contract farming system.

DEMAND PROJECTION BY 2011-12

• Existing area as on 2008-09	-	8.93 lakh ha
• Existing production as on 2007-08	-	6.93 lakh MT
• Anticipated demand of rawnut by 2011-12 with annual growth rate of 5% per annum	-	14.00 Lakh MT
• Anticipated area coverage through NP and RP	-	NP-80000 ha
	-	RP-60000 ha
• Requirement of planting material	-	100 Lakh clones
• Availability of planting material	-	100 lakh clones
• Anticipated financial off take	-	225 Crores
• Anticipated production by 2011-12	-	11.00 Lakh MT

ANNEXURE – 20

PROMOTION OF INDIAN CASHEW

by : Bhoodes R.K

What is Promotion?

"Activities that communicate the merits of a product and persuade target customers to buy it."

- Communication
- Persuasion…

The Need For Generic Promotion

- The awareness of the consumer regarding the various factors and advantages of Cashew nuts is either low or not to the expected level
- The perceived value of the product is low compared to its actual benefits.
- To regularize the fluctuations in demand
- To bridge the gap between production and consumption…

Cashew Trade - Characteristics

- Cashew market is often viewed as "price driven"
- Cashew price is a balance between "Demand & Supply"
- Manufactures are encouraged to buy more if supply is guaranteed
- Price stability on Cashew will make it more affordable resulting in increased sales.
- The pricing of other nuts can determine the price and consumption of cashew
- Decrease in price of Cashew is not immediately reflected in the retail markets
- "Cashew Promotions" can bring in drastic changes in the consumption…

So , the Cashew market is more DEMAND DRIVEN

THE NEED OF THE HOUR

To Create a **" DEMAND PULL "**

&

INCREASE CONSUMPTION

Methods to Improve Consumption

- Increased Customer Base
- Increased Per Capita Consumption

Increase consumption in Existing Segments & Markets

New Segments

- By Substitution
- New Applications

New Geographical Market

Develop New Segments & Markets

Promotional Tools

- *Advertisement*
- *Personal Selling*
- *Sales Promotion*
- *Public Relations*

Advertisement..

Use of Nutrition as a tool

- Cholesterol free
- Controls xherosis of liver
- Reduces chance of Heart Attacks
- Stabilizes the nervous system etc…

- Promote Cashew as a "Health Nut"
- Promote cashew in different segments
- Promote cashew as a "Premium life style Nut "
- Increase Product Velocity through trade channels
- Highlight the role of cashew as a snack with beverages
- Generate eye catching Logo for promotion
- Participate in trade fair & Food Exhibitions…

Personal Selling ……..

Promotion through special class like Dieticians, Health spas, Restaurants etc…

- Handling objections from customers
- Product innovations to interest the consumers
- Direct Marketing
- Tele marketing
- E-marketing
- Catalog marketing
- Kiosk Marketing …

Sales Promotion….

Providing Samples

- *Cash Coupons*
- *Discounts & Allowances*
- *Point of Purchase (POP) promotion*
- *Cash refund*
- *wrap around products*
- *Scratch Cards*
- *Promotional Events …..*

Public Relations …

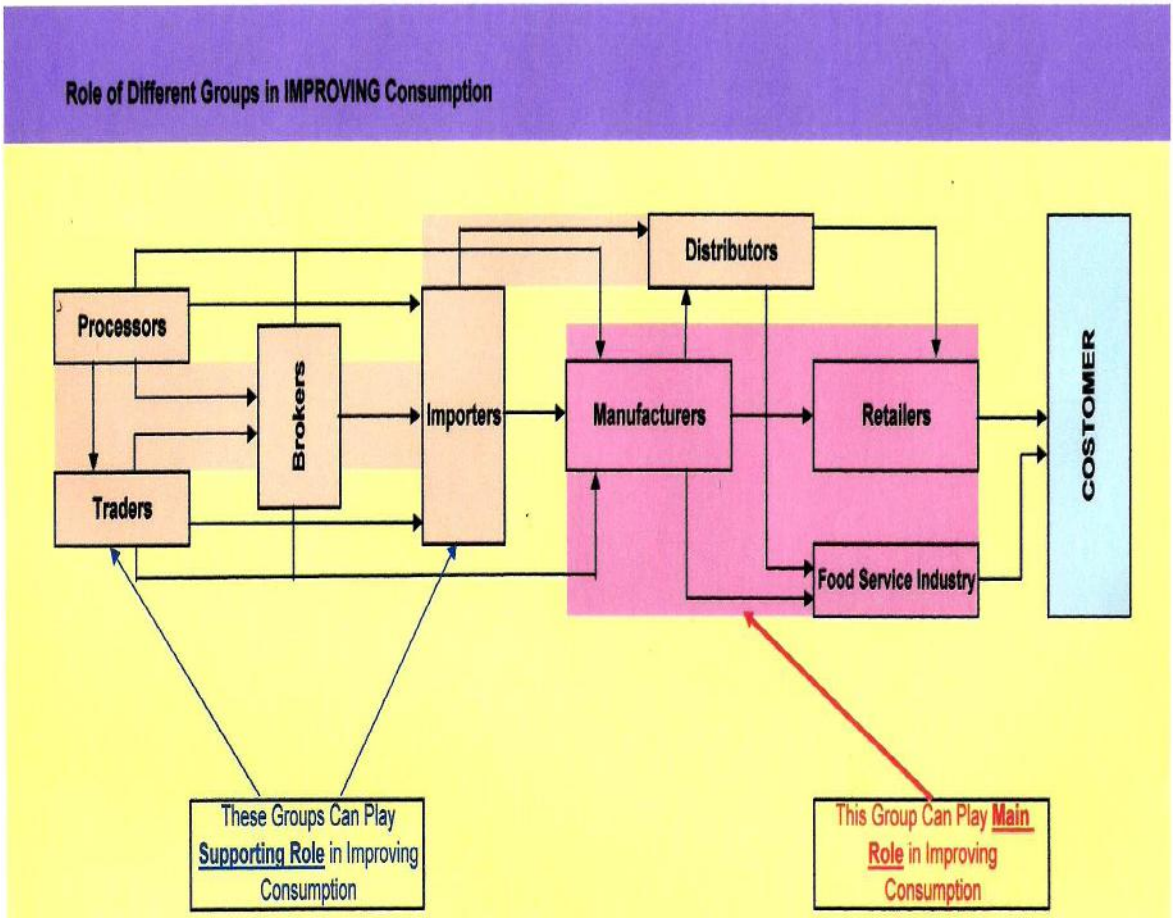
Creating and placing news worthy information about Cashew in the news media

- *Alliance with Institutions & Organisations for Research and Promotion*
- *Product publicity of Cashew*
- *Nutrition as a tool*
- *Rapport with Government & Legislators to influence legislation and regulation*
- *Volunteer support from Non profit oriented organisations*
- *Lobbying Governmental and institutional customers..*

Role Mapping

Promotional Tool	**Exporter**	**Broker**	**Importer**	**Manufacturer**	**Distributor**	**Retailer**
Advertisement	#	#	#	*		*
Personal Selling				#		*
Sales Promotion				*	#	*
Public Relations			#	*	#	*
Scores	5	5	10	35	10	40

Improving Consumption



Generic Vs Specific Promotion of Indian Cashew

- Generic promotion has the disadvantage that it can hurt producers of HIGH QUALITY & DISTINCT products that consumers will perceive the same value to all brands / origins .
- At the same time Generic promotion can slightly benefit those brands with distinct features
  - The above arguments are very true in case of INDIAN CASHEW

WHY INDIAN CASHEWS?

- INDIAN CASHEW offers unparalleled benefits to both industrial and house hold customers in terms of:-
  - Quality of Product
  - Reliability on Supply
- India has a rich tradition and established a standard in the industry
- Market dominance ,reach , depth & maturity
- Richest Knowledge base
- Uninterrupted supply to the value chain …

Uniqueness of Indian Cashew

- Quality Aspect
  - Highly skilled Labor
  - Mix of traditional processing methods incorporating modern techniques
  - Production of more "wholes" and all varieties of "Brokens"
  - Oil expulsion methods adopted to ensure that the Kernel is free from CNS oil
  - Relatively low levels of inventory (JIT) , and hence fresh material processed
  - No risk of carry over of old stock due to heavy domestic demand
  - Quick adoption to changes
  - Unparalleled product taste , colour & appearance
  - Relatively long shelf life period
  - Continued Quality Improvement Program
  - Adoption of GMP in majority of processing centres
  - All major Exporting firms ISO / HACCP certified
  - Modernisation schemes of CEPC & Govt. of India
  - Brand Premium….

Ensuring Supply to the Value Chain

- Ever increasing production of Cashew
- 365 x 7 x 24 supply at any time for any grade
- Can easily absorb immediate fluctuations in the RCN supply
- Can produce 1/3 more with same infrastructure
- Unrivalled capacities in Raw nut imports …

Market Dominance of India

- India is the largest Exporter, Processor and Importer of Cashew in the world
- India is a huge consumer of cashew kernels also
- Strong relationship with key stakeholders in the trade
- Diversified market destinations
- Very long presence in the Trade
- Richest Knowledge base
- Industry foresight
- High risk bearing capacity …

INDIA'S DOMINANCE IN WORLD TRADE OF CASHEW……

- India has the largest processing capacity and the ability to supply cashew at any point of time

Parameters	INDIA	BRAZIL	VIETNAM
No. of Factories	Above 1100	Less than 10	Around 80
No. of Exporters	Over 200	Less than 10	Over 50
Production Capacity (MT)	1,200,000	280,000	350,000
Capacity utilization	60-65 %	50-60 %	75-85 %

And What More …..

- With the installed capacity of more than 1.2 million M.T a year INDIA has the capacity , expertise and infrastructure to cater the entire requirement of around 260,000 M.T of world cashew consumption
- So , the supply point of view India can support the cashew industry better than any other region in the world…

Vision 2020

- Cashew is labeled the *"Premium Life Style"* nut
- INDIA still enjoys its unrivalled position & Dominance in the world cashew market
- BRAND PREMIUM of Indian Cashew is more prominent in the market
    - Products branded as *"made of Indian Cashew"* is the choice of the customer
    - India – the supplier of Choice …

Don't Forget…

- To achieve the vision 2020, INDIA has to re-dedicate its commitments towards…

- The Quality of the Product
- Excellence in Production
- Assurance of Supply …

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