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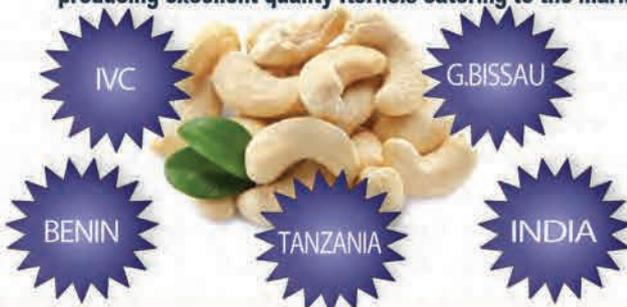
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## Speakers



**Mr Nguyen Duc Thanh**  
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**Mr P Sundaran**  
Chairman  
CEPCI



**Mr Sanogo Malamine**  
Director General  
Council of Cotton and Cashewnut  
(CCA) Ivory Coast



**Mr Olusegun Awolowo**  
CEO  
Nigeria Export  
Promotion Council



**Dr. Babafemi Ojewole**  
Managing Director  
African Cashew Alliance



**Mr Rahul Kamath**  
President  
Karnataka Cashew  
Manufacturers Association



**Mr Vasudev Barkur**  
Executive Director  
ETG Group



**Mr Bob Bauer**  
President  
AFI US



**Mr Tola Faseru**  
President  
National Cashew Association of  
Nigeria (NCAN)



**Mr Meite Inza**  
Executive Secretary  
AEC-CI



**Mr Marc Rosenblatt**  
Partner  
The Richard Franco Agency, Inc



**Mr Jim Giles**  
Quality and  
Food Safety Expert



**Ms Suhasini Singh**  
Head - Agri Debt Invsts  
Asia Pacific  
ResponsAbility



**Mr Sadanandan G Nair**  
Business Head - Cashew  
Vink Corporation DMCC



**Mr Hari Nair**  
President  
Western India  
Cashew Company Pvt Ltd



**Dr R K Bhooedes, Chairman,**  
Federation of  
Indian Cashew Industry



**Ms Vinita Venkatesh**  
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**Ms Menik Buddhini**  
Director  
Buddhi Industries



**Ms Rita Weidinger**  
Executive Director  
African Cashew Initiative (ACI)



**Mr Ashok Narayanan**  
Director  
Orion Commodities



**Mr Giridhar Prabhu**  
Managing Director  
Achal Industries



**Mr Jim Fitzpatrick**  
Business development  
consultant and mentor  
Ingredient Sourcing Solutions



**Mr Shakti Pal**  
Global Cashew Sector Lead  
TechnoServe



**Mr Krishnan Nair**  
MD  
KGN Group



**Mr Karim Berthe**  
Coordonnateur Général  
CCA



**Mr Pierre RICAU**  
Agro Markets Analyst  
N'Kalô Service (Rongead)



**Mr Stefano Massari**  
Managing Director  
Oltremare



**Mr Sunil Dahiya**  
Business Advisory Manager  
African Cashew Alliance



**Mr Vasilis Sotirioudas**  
GM  
Eco2- Greece and  
AgroSpeCon



**Mr Gunjan V Jain**  
Managing Director  
VKC Nuts Pvt Ltd



**Mr Mohamad Meeran Saheb**  
EMCO International



**Mr Amrith Kurien**  
Partner  
Comafrique



**Dr B Jacob**  
Managing Director  
Trans Synergy  
Qualisystems Pvt Ltd



**Mr A Barathy**  
Partner  
GI Technologies



**Mr Balasubramanian**  
RBS Maritime Services



**Mr Pramod Kamath,**  
K Subraya Anantha Kamath &  
Sons



**Mr Dang Van Tuyen**  
Mekong Technology

## Programme Schedule

<b>Day-1: February 18, 2016</b>	
12:00 noon - 5:00 pm	Delegate Registration & Networking, delegate kit sponsored by Buddhi Industries & Platcorp
1:00 pm - 2:30 pm	<b>Networking Lunch</b>
2:30 pm - 3:30 pm	<b>Inaugural function</b> <b>Welcome Address by Mr Srivatsava G, President, Foretell Business Solutions</b> <b>Mr P Sundaran, Chairman, CEPCI</b> <b>Mr Nguyen Duc Thanh, President, Vinacas</b> <b>Mr Sanogo Malamine, Director General, Cotton and Cashew Council, Ivory Coast</b> <b>Mr Vasudev Barkur, Executive Director, ETG</b> <b>Mr Bob Bauer, President, AFI US</b>
3:30 pm - 4:45 pm	<b>Raw Cashew Markets in 2016</b> <b>Moderator- Mr Ashok Narayanan, Director, Orion Commodities</b>  <b>Tanzania / Mozambique (2015 season) - Mr Vasudev Barkur, ETG</b> <b>India - Mr Pramod Kamath, K Subraya Anantha Kamath &amp; Sons</b> <b>West Africa (except Guinea Bissau) - Mr Pierre Ricau, Agri-market Analyst</b> <b>nKalo Services (RONGEAD)</b> <b>RCN Crop Prospects in Vietnam / Cambodia-2016 - Mr Nguyen Duc Thanh, Chairman, Vinacas</b>
4:45 pm - 5:00 pm	<b>Networking Tea Break</b>
5:00 pm - 5:05 pm	<b>Address by Mr Karim Berthe, Coordonnateur Général, CCA</b>
5:05 pm - 6:20 pm	<b>Cashew kernel markets in 2016</b> <b>Moderator- Mr Jim Fitzpatrick, Business Development Consultant and Mentor, Ingredient Sourcing Solutions</b>  <b>UK &amp; Europe market - Mr Jim Fitzpatrick, Ingredient Sourcing Solutions</b> <b>US Cashew Kernel market - Mr Marc Rosenblatt, Partner, The Richard Franco Agency (RFA), USA</b> <b>India - Mr Rahul Kamath, President, KCMA</b> <b>Middle-East - Mr Mohamad Meeran Saheb, EMCO Intl</b>
6:30 pm - 8:00 pm	<b>Cocktail Reception by poolside</b>
<b>Day-2: February 19, 2016</b>	
9:30 am - 10:45 am	<b>Plenary session on "Meeting kernels buyers' requirements &amp; food safety law compliance"</b> <b>Moderator - Mr Jim Giles, Quality and Food Safety Expert</b>  <b>Presentation - 'Origin-wise US buyer perception on cashew quality and food safety'</b> <b>Mr Bob Bauer, President, AFI US</b> <b>Experience sharing by Mr Marc Rosenblatt, The Richard Franco Agency (RFA), USA</b> <b>Presentation - "Indian Cashews Kernel Markets - Current Challenges"</b> <b>Mr Gunjan Jain, VKC Nuts Pvt. Ltd.</b> <b>Presentation - "Improvements in quality and food safety processes at cashew processing factories in India"</b> <b>Dr B Jacob, MD, Trans Synergy Qualisystems Pvt Ltd</b>
10:45 am - 11:00 am	<b>Networking Tea Break</b>
11:00 am - 12:15 pm	<b>Workshop - "Setting a time-bound action agenda to meet kernel buyer's expectations"</b>
12:15 pm - 2:30 pm	<b>Networking Lunch sponsored by DVK Group &amp; Vittal Cashew</b>
2:30 pm - 2:45 pm	<b>Leveraging Krishnapatnam for developing a cashew ecosystem</b> <b>Ms Vinita Venkatesh, Director, Krishnapatnam Port Container Terminal Pvt Ltd</b>

## Programme Schedule

2:45 pm - 4:00 pm	<p>Plenary session on "Meeting RCN buyers expectation"  <b>Moderator- Mr Krishnan Nair</b>, Managing Director, KGN Group          Presentation - "Origin-wise Buyers Perception on delivered quality of RCN and Experiences so far"</p> <p><b>Mr Balasubramanian</b>, RBS Maritime Services  <b>Cashewinfo Survey</b>          Initiatives at origin to maintain RCN quality - presentations  <b>Mr Meite Inza</b>, Executive Secretary, AEC-CI  <b>Mr Sunil Dahiya</b>, Business Advisory Manager, African Cashew Alliance  <b>Mr Amrith Kurien</b>, Partner, Comafrique  <b>Mr Tola Faseru</b>, President, National Cashew Association of Nigeria (NCAN)  <b>Presentation - Standardisation of RCN quality</b>  <b>Dr Bhoodes RK</b>, Federation of Indian Cashew Industry</p>
4:00 pm - 4:15 pm	<b>Networking Tea Break</b>
4:15 pm - 5:00 pm	Workshop - "Setting a time-bound action agenda to meet RCN buyer's quality expectations"
5:00 pm - 5:45 pm	<p><b>Discussion on "Recent developments in Shelling Technologies"</b>  <b>Moderator: Mr Hari Nair</b>, President, Western India Cashew Company Pvt Ltd  <b>Panelists:</b></p> <p><b>Ms Menik Buddhini</b>, Buddhi Industries  <b>Mr A Barathy</b>, GI Technologies  <b>Mr Dang Van Tuyen</b>, Mekong Technology  <b>Mr Stefano Massari</b>, Oltremare</p>
8:00 pm - 10:00 pm	Gala Cocktail Dinner at Ballroom A, B & C sponsored by PT. Comextra Majora
<b>Day-3: February 20, 2016</b>	
9:30 am - 11:00 am	<p><b>Innovation Forum</b>  <b>Moderator- Mr Giridhar Prabhu</b>, Managing Director, Achal Industries  <b>Panelists:</b></p> <p><b>Ms Suhasini Singh</b>, Head - Agri - Debt Investments, Asia Pacific, ResponsAbility  <b>Ms Rita Weidinger</b>, Executive Director, ACi  <b>Mr Vasilis Sotiroudas</b>, GM, EcO2 and AgrSpeCom</p>
11:00 am - 11:30 am	<b>Networking Tea Break</b>
11:30 am - 1:00 pm	<b>Business to Business Meetings</b>
11:30 am - 1:00 pm	<p><b>Investor Forum</b>  <b>Moderator- Mr Shaktipal</b>, Global Cashew Sector Lead, Technoserve  <b>Panelists:</b></p> <p><b>Mr Sanogo Malamine</b>, Director General, Cashew and Cotton Council, Ivory Coast  <b>Mr Olusegun Awolowo</b>, CEO, Nigeria Export Promotion Council  <b>Dr Babafemi Oyewale</b>, MD, African Cashew Alliance  <b>Mr Sadanandan G Nair</b>, Business Head - Cashew, Vink Corporation DMCC</p>
1:00 pm - 2:30 pm	<b>Networking Lunch sponsored by Orion Commodities</b>
2:30 pm - 4:30 pm	<b>Business to Business Meetings</b>
4:30 pm - 4:45 pm	<b>Close of conference</b>

## Technical Committee - WCC 2016



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CashewInfo.com



**Mr Jim Fitzpatrick**  
Ingredient Sourcing  
Solutions



**Mr Ashok Narayanan**  
Director  
Orion Commodities



**Mr Russell Lynch**  
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**Mr Pankaj Sampat**  
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**Mr Shakti Pal**  
Global Cashew Sector Lead  
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### Convention Incharge



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## Inaugural Function



**Mr Srivatsava G**, President, Foretell Business Solutions (Cashewinfo.com), **Mr Nguyen Duc Thanh**, President, VINACAS  
**Mr Sanogo Malamine**, Director General, CCA-Cote d'Ivoire, **Mr P Sundaran**, Chairman, CEPCI  
**Mr Vasudev Barkur**, Executive Director, ETG Group and **Mr Bob Bauer**, President, AFI, US.

## Welcome Address by

**Mr Srivatsava G**, President, Foretell Business Solutions (Cashewinfo.com)



Distinguished dignitaries on the dais- Mr P Sundaran, Chairman, Cashew Export Promotion Council of India, Mr Nguyen Duc Thanh, President, VINACAS, Mr Sanogo Malamine, Director General, Cotton and Cashew Council of Cote d'Ivoire, Mr Bob Bauer, President, Association of Food Industries, US, expert speakers and panelists, delegates from over 33 countries, invitees from government, press and media, ladies and gentlemen, with immense pleasure and gratitude I welcome you all to the second World Cashew Convention. Hope you had a comfortable journey into this wonderful city of Dubai and are really excited as we are today.

As you can see, the men on the dais represent countries that are significant for cashew business- the largest

exporter of kernel- Vietnam; the largest processor of cashews and largest producer of raw nuts India and the largest producer and largest exporter of raw nut in Africa- Cote-d'Ivoire, the most promising market for every cashew processor- the USA. Gentlemen, please put your hands together for the distinguished dignitaries on the dais and for their presence amongst us. Thank you sirs.

**In many ways, the second edition is different from the first one. First, it is a three day format providing much needed opportunity to network. The day-1 would be on markets, day-2 would be on quality and food safety while day-3 would be on Innovation and Investment themes.** We have amongst us 400 + delegates (25% more than last year) from 33 countries and representing 245

organisations. So, hopefully the three day format provides each one of you to know more, explore more.

The second edition is sponsored by 11 organisations and supported by 9 associations / organizations from around the world. The second edition would see 15 exhibitors exhibiting their products and services, three pavilions facilitating business with their countries.

I am also happy to place on record the immense efforts, time and passion put in by the Technical Advisory Team comprising eight members for the conference. It is their plan that would be executed in the next two days. I am sure you would appreciate the efforts of the committee and I take this opportunity to thank each of the committee members.

We are at the beginning of a new season in northern hemisphere. Rightly, there is a high level of excitement about the prospects of the new crop and a new season. **World in 2016 is quite different from what it was a year ago. Global economic growth is projected lower. Commodities markets are forecast to continue their bearishness. The markets for premium nuts (except cashews) have seen huge price declines in the last six months. The US dollar has been strengthening against all other currencies.** So, all these external developments could impact cashews too. How would the kernel markets behave in 2016?

How is the raw nut season in northern hemisphere going to be? Are we to see huge price swings this year? These and many more questions linger in our minds.

The Technical Committee has taken cognizance of this and has placed emphasis on discussing markets- both raw seed as well as kernel markets - on day-1, immediately after the inaugural function. Hopefully, many of your questions would be addressed through the discussions on markets lined up for the day.

**Quality and food safety issues are increasingly becoming important in food industry with the emergence of new**

**standards and systems.** Cashew being a very complex supply chain, faces its own quality and food safety related challenges. **The Committee has identified this issue to be the most important one and has chosen aptly the theme of the conference as "Meeting Buyer's Requirements on Quality and Food Safety".** In line with the theme, we would have two plenary session's tomorrow viz., One on kernel quality and the other on RCN quality. These sessions would be followed by a participatory workshop, where your input, participation and commitment are going to be the key. **I take this opportunity to thank, AFI-US for conducting a survey of US kernel importers on 'quality of kernels' delivered into US markets. Likewise, I thank all participants who have taken part in RCN quality survey.**

On technology update, we have a lively session coming up on "Latest technology trends in Shelling" on day-2.

No industry can grow and prosper without innovation and investment. I am happy to inform you that we have taken the opportunity to present two forums- "Innovation Forum" and "Investment Forum" on day-3 morning session. We have some very exciting presentations and deliberations lined up in these sessions. Lastly, there is a one-to-one business meeting session planned for day-3 besides buyer-seller meet.

We have provided for enough leisure time starting with cocktail reception today, gala cocktail and dinner tomorrow and several networking break besides the one to one business meeting opportunity on day-3. Hope you would find these useful for networking and building new relationships. From our end, we aspire to do more, strive hard and be of relevance to the global cashew industry. We are continuously encouraged by your support and cooperation. Hope the second World Cashew Convention is rewarding to your business. With these words, I welcome you all once again for the second World Cashew Convention. Thank you very much and best wishes to you all.

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## Special Address by Mr P Sundaran, Chairman Cashew Export Promotion Council of India (CEPCI)



It is a great pleasure to be here on this occasion, on the eventful day of inauguration of World Cashew Convention organized by cashewinfo.com. I take this opportunity to congratulate and extend our thanks and gratitude to the organizer of this convention.

It is indeed an honor to be here at the inauguration of 2nd edition of World Cashew Convention at Dubai. I also take note that this forum represents a good cross section of the world cashew industry with producers, processors, importers, exporters, logistics personnel and other service providers.

As we all know India was the first country to develop cashew nuts processing domestically and to revolutionize export of cashew kernels. Since the last two decades many other producing countries have started processing and exporting; however, India continues to be the world largest cashew producer, processor and consumer of cashew kernels. As per the last figures India has exported 120,000 tonnes of cashew kernels, valued at INR 910 million in 2014-15. This is an increase of 3.62 percent over previous year. India is also the largest importer of raw cashew nuts in the world. In 2014-15 India has imported 900,000 tonnes of raw cashew nuts, mainly from African countries.

Cashew Export Promotion Council of India (CEPCI), the organisation set up by the Government of India for export promotion of cashew and allied products from India, is now celebrating its diamond jubilee year i.e., 60th year of service to cashew industry in India. CEPCI has been serving as a friend, philosopher and guide to the Indian cashew industry and acts as a link between Indian cashew producers and the global markets. CEPCI has its prestigious laboratory and technical division at Kollam, Kerala-India, established in the year 1997. The NABL-accredited laboratory of international repute render analytical and consulting services to not only the cashew industry but also the entire food processing industry in India and abroad.

It is glad to note that the theme of this conference is "Meeting Buyers' Requirements". The buyers requirements are critical in any business and the sellers have the responsibility to match buyers trade values etc., **The Indian cashew industry has strived to be in tune with buyers requirements. It is capable of supplying any quality and quantity at anytime and anywhere in the world.** Buyers' requirement are normally intentional, but also takes care of price, delivery period, packing, destination, billing, documentation, ensuring warehousing etc.,

The international economic scenario has been unpredictable and consumption of cashew kernel in traditional markets has not shown the growth one would have expected in normal times. The kernel prices in international markets have been rather stagnant though we have seen a steep increase in the price of raw cashew nuts. We have to ensure that raw cashew nuts should be made available parity with cashew kernels. Unfortunately the RCN sector is not well-organized. **A uniform practice in the raw cashew sector is the need of the hour.**

On the positive side, the growing awareness about the health and nutritional benefits of consuming cashews would definitely boost consumption. **INC has initiated studies about heart aspects of cashews while the CEPCI**

**has almost completed the study of consuming cashews on diabetic persons. We are confident that the results of these studies will be encouraging and will help to know more and more about cashews.** I take this opportunity to laud the efforts of Foretell for organizing this international conference and wish them all success. We look forward to attending some illustrious sessions with many other issues being discussed, ideas being evolved and problems being solved.

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**Mr. Charlie Gill, Commodities Manager –Fruits, Whitworths Ltd**

We buy cashews at the supply Chain but there is no substitute for face to face meetings. In order to have a long term quality and sustainability, we have to meet people in the supply chain. It's been a good experience meeting the key people from different origins at WCC, who in turn give me more confidence about investment and quality going forward.



**Mr Vasudev Barkur, Executive Director, ETG**

Cashew info has been doing a commendable job, they are bringing together all the cashew fraternity to talk as one family and address those critical areas and issues faced by the cashew value chain as a whole.

## Special Address by Mr Nguyen Duc Thanh President, VINACAS



On behalf of VINACAS, I would like to thank Cashewinfo and World Cashew Convention for inviting me here to participate in this conference. Cashews is one of the healthy nuts. In recent years Vietnam has developed a vibrant cashew industry. **"Talk about cashew, think about Vietnam" is our theme.** Vietnam is the top cashew kernel exporter since 2006. We are happy to be here at the World Cashew Convention. Thank you.

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## Special Address by Mr Sanogo Malamine, Director General, Cotton and Cashewnut Council, IVC



We, a strong delegation including two administrators from Cotton and Cashew Council, Mrs TOURE, and Mr Lassifou OUATTARA, would like to thank all of you. Actually, we are here today to show you Ivory Coast's interest in cashew sector and to this Convention organized by Cashewinfo.com. I am also accompanied by my deputy manager, the Director of the National Higher Institute of Agronomy, my technical coordinator and my technical assistant. I must not forget all the Ivorian exporters and processors, I would really like to greet them all, and say that we made a really strong delegation here.

**Ivory Coast is interested in anything related to cashew, because nowadays, cashew has become a strategically**

**important crop for our country particularly for the Northern and the Central regions.**

About the production, I believe you all know that we are around 700,000 MT and we think that we still have a scope for improvement. So, I came here to inform that we are getting ready to answer your expectations as well as ours, because this is a question of cashew sector durability which concerns at least 400,000 producers.

**We are here to reassure you that we will meet your expectations, and I know that your expectations mostly concerns raw cashew nuts supply in quantity and quality; and we are getting ready to make necessary arrangements.**

**We reassure you that we will ensure the processing for our part, and according to us this should not be an issue to meet the world-wide demand of RCN. So, as far as we are concerned, we need to achieve those two goals.**

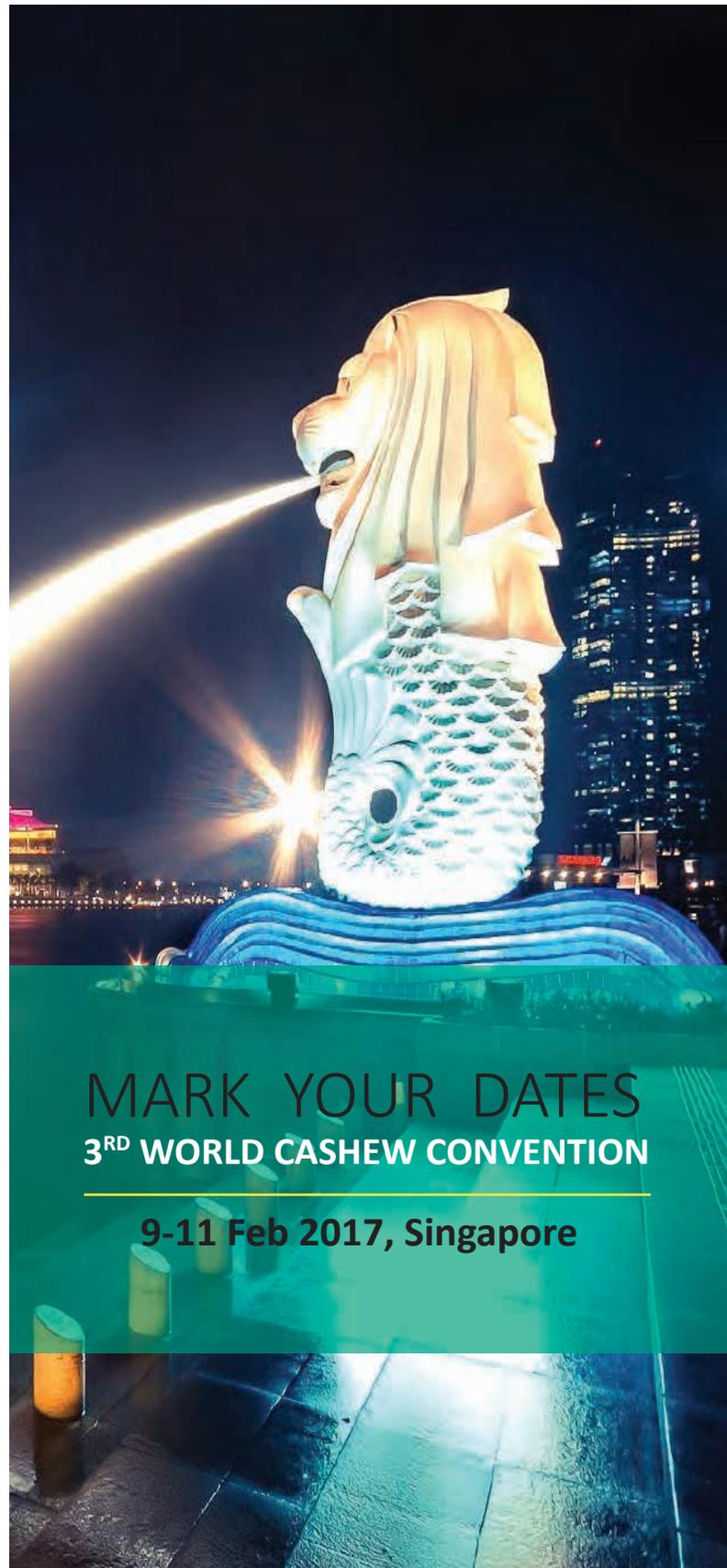
I would really like to reassure everyone that we are able to make it happen, provided that you give us your support. I am talking about our friends from Vietnam and India. In Ivory Coast, cashew was not introduced as a sector but to stop deforestation, **so we don't exactly have cashew fields but rather have cashew nut forests, and we do not make an acceptable yield; also we believe with your assistance on research, farming, marketing and processing we can do better. We believe we can meet your expectations which are making available RCN in good quantity and quality.**

I would like to thank cashewinfo.com for this initiative, because it's very important to gather all the players of this value chain to discuss the sector's future and its viability.

I would like to end this by saying that we are at your disposal. We would like to invite all of you to our International Cashew Processing Equipment & Technology Show, a show dedicated to all the players in this sector. We will have the opportunity to tell you more about it.

I will end my speech on this inaugural session by thanking you for the invitation and for having honored Ivory Coast. Thank you.

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**3<sup>RD</sup> WORLD CASHEW CONVENTION**

**9-11 Feb 2017, Singapore**

## Address by Mr Vasudev Barkur Executive Director, ETG Group



First of all, I congratulate cashewinfo.com for their wonderful initiative, for the cause of cashew. There are lots of good things the cashew fraternity can do together for the betterment of the industry. At a time when the world commodity markets are falling down- crude oil has been falling consistently, base metals are going down and many other exchange traded products which are connected to fuels or logistics supplies are falling globally - cashew prices are consistently steady, probably close to stable. On the other side as Mr Sundaran said there are issues, with some processors going through problems, incurring losses and many of them closing down, especially in India.

Africa, much talked about origin here when we talk about cashew, produces nearly 50% of World cashews and exports almost 90% of its raw cashews internationally. Somebody sitting on the other side, probably in India or Vietnam, are processing these nuts into kernels. Due to various reasons, some things may not be happening in the right way in this long supply chain, causing concerns to processors. **A bridging mechanism is therefore essential which can work for producers in Africa as well as cashew processors at large in the destination. There is a need for a platform, which promotes the overall cashew standards, so that necessary markets can be guided.**

However, we should not attempt anything or adopt measures, advance any solutions aimed at controlling markets. Market is market, nobody can control it. Market will take its own way to control everything. By bringing in some short term measures or not well-known strategies assuming that it will benefit the industry might go wrong. We should look at a more structured issues. **Specifically with respect to India, cashew processing industry needs broader reforms, needs a deeper thought.** There are people in this business for decades, some of the companies in this business for centuries. Hence, we need a deeper discussion, thoughts and deeper action plan, which can bring a sustainable growth for the Indian processing industry. This is one of the main topics that is going to be touched up on in the coming two days. Even the concept of this convention is also the same. All of us should put our thoughts in favor of sustainable growth of the cashew industry going forward.

I personally believe that cashew business is growing; RCN production is growing across globe. Africa's share of raw nut would continue to grow over the years. While the processing will pickup in Africa in the next five year, Africa has a long way to go before it begins to processing its entire raw nut production.

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**Ms. Suhasini Singh, Head-Agriculture Debt Investments Asia Pacific, responsAbility**

I think for sector as a whole, the gathering is extremely important for everyone to meet and catch up and know as to what's happening in the sector and plan for the upcoming season. To learn about the industry and quality related issues, the sessions being planned here were extremely useful for us as well as all the stake holders.



**Mr Olusegun Awolowo CEO, Nigerian Export Promotion Council**

We are glad that we took part in the WCC; It's a very good convention, as there is a lot of networking and business match making which is crucial for the processors, exporters and other stakeholders. Basically when you have a face to face meeting with your business partner it helps you, and that in turn can help you to build trust which is the key to success



**Mr Ravindra Mehtha, International Fruits and Nuts Organization**

It has been a wonderful pattern in bringing the knowledge of origins to buyers; it has a huge future going ahead. The sessions, I have attended have been exceptionally good and informative; given us a lot of insight on the industry and in turn is bringing in buyers and sellers together. It's a wonderful initiative taken up by Cashewinfo and I hope, it grows tremendously over years

## Address by Mr Bob Bauer, President, Association of Food Industries



It is a pleasure to be here. Congratulations to the organisers and pleased to be part of the distinguished panel here today. Going to the theme of the conference from the buyer's perspective quality and food safety were two most areas that requires attention. First quality, determines business relationship between buyers and

sellers. Food safety is more important for the importers/ suppliers of USA due to the emergence of FSMA. Very detailed list of requirements is needed by every producer who wants to sell their produce to USA, as their customers need that information if any issue arises with respect to food safety/quality.

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## Panel - 1: Raw Cashew Markets in 2016



**Mr Vasudev Barkur, ETG, Mr Nguyen Duc Thanh, VINACAS, Mr Ashok Narayanan, Director, Orion Commodities-Moderator, Mr Pramod Kamath, KSK & Sons and Mr Pierre RICAU, nKalo Services (RONGEAD)**

**Mr Ashok Narayanan:** In this session, we will discuss the growth in raw cashew production, the way in which prices have moved over the past 5 to 6 years and sustaining at higher levels, which hopefully should lead to increase in production across the globe.

**Mr Vasudev Barkur, ETG Group- Africa RCN crop in 2016**  
 In East Africa, we will discuss about cashew nut season in Tanzania, Mozambique and Kenya. In Kenya cashew production was only to the tune of 5,000 to 10,000 tonnes.

**Tanzania RCN 2015/16 production is likely to be around 165,000 tonnes, slightly below the normal production of 200,000 tonnes. Till date 146,600 tonnes of raw nuts exported from both Mtwara and Dar-es-Salam ports.**

The quality of cashew nut from Tanzania has been very good, above the normal average. Rain has been very considerate and has not given that much of trouble this year. For the past two years, logistics was a problem in Mtwara port, which has resulted in quality issues as cashew vessels, had to wait for longer time at port premises. But during this season, waiting period is largely

minimized, which is a good sign. **Overall Tanzanian raw cashew nut crop is short somewhere between 20 and 30 percent, considering above 200,000 tonnes as normal crop.**



Mozambique has witnessed one of the bumper cashew crop during the last season. Mozambique used to produce 200,000 tonnes of cashew nuts during 1970's. But civil war resulted in lot of uncertainties and eventually production declined drastically and stabilized around 20,000 tonnes. Anything between 20,000 and 30,000 tonnes is considered as normal cashew nut production for Mozambique. **As per the latest figures available Mozambique has produced around 86,000 tonnes.** Cashew production almost doubled in 2015/16 season in Mozambique when compared with normal production. Mozambique till date has exported around 20,000 tonnes of cashews and the processing volume ranges in the region of 35,000 and 40,000 tonnes.

**Guinea Bissau 2015 crop season was normal. It produced around 160,000 and 200,000 tonnes of cashew nuts. The crop is expected to be normal in 2016 also, still there is a long way to go.** Logistics is always a challenge in Guinea Bissau. Crop in West African countries will mostly be delayed this year. **Benin crop is delayed by about a month and Ivory Coast by two weeks.** Guinea Bissau cashew crop size in 2016 is expected to be around 200,000 tonnes.

### Mr Pramod Kamath, KSK & Sons- The Indian Raw Cashew nut Scenario

I present the Indian RCN crop scenario for 2016 on the basis of past history and on various factors affecting the crop. **India's RCN production is forecast around the same level of 650,000 tonnes for 2016.** Based on very conservative estimate Indian RCN crop is likely to be around 550,000 tonnes in the coming season with Maharashtra estimated to produce 150,000 tonnes. Kerala which was producing 150,000 tonnes of raw cashew nut earlier, production has fallen in the last eight to nine years due to competition from other crops like



rubber and the growth rate is currently estimated at zero, which is good considering it was negative earlier and the **production is currently stagnant around 70,000 tonnes.** Barring Kerala, other southern states notably Karnataka, Tamil Nadu along with Goa raw cashew nut growth rate is estimated at 5%. While Andhra is growing at the rate of 8%, Maharashtra, Odisha and Others (Chhattisgarh, Jharkhand, West Bengal, Assam, etc.,) having a growth rate of 10% (all growth rates estimated in terms of tonnes).

**Raw cashew price growth during 1993 and 2016 in terms of dollar is observed at 6.3%. Significantly, the price growth in RCN is even better during 2008 and 2016 which is at 9.98%.**

Some of the main factors affecting the raw cashew crop include rainfall. If it rains well, growth is healthy. Temperatures post the rainfall, whether winter is very

good means there is less humidity. After winter look out for temperature post-flowering, whether any rainfall during that period and watch out whether farmer is active and so on. Considering the above factors rainfall in 2015 was very good in India in most of the places; however in Andhra and Odisha rainfall was probably less. Some good showers witnessed in November and December, which is unseasonal and caused setting of winter season little late towards late November or early December. Due to delay in winter season, flowering will be delayed as winter is essential for stress in the field. But late flowering was seen only in the states of Kerala and Karnataka for some varieties. Otherwise flowering was good in other states with Maharashtra and Odisha are claiming to have early flowering in fact and is reported excellent. Temperature has been very good, ideal, or so to say optimal in fact. Nights are optimally cool; afternoons are not very harsh, which is good for sustainability of flowers. One of the main problems is that if the humidity suddenly increases and will have clouds which have not reported except in one or two places in Thrissur area of Kerala. The humidity causes tea mosquito disease to develop. But so far there are no reports on that front except for few places in Southern states. The farmer has to do pruning, fertilize and irrigate the crop; probably cashew is the only crop that the farmer doesn't do any of these things and then gets a good yield. One of the reasons for that is the total economic investment. Yield per acre is always been low. However, for the last two to three years cashew has become a viable crop. You invest a bit in terms of fertilizers and irrigate the crop at specified intervals. This is one of the reasons that we have seen in the last three to four years farmers have become enthusiastic about the cashew crop. Also there is a reason that competing crops such as Mango in Maharashtra, Tobacco in Odisha and Rubber in South India etc., have become quite volatile and difficult to manage. Most of these farmers are now shifting to cashew, which is good news for the Indian cashew crop.

Derived from these, 2016 scenario is simple. **Crop is little delay in some places; weather condition is good in some**

**places and farmers are very much interested in planting cashew sap, whatever arrivals happened so far, quality is excellent, quite steady, but in places it may be delayed by a couple of weeks.**

Raw cashew nut prices have increased by 10 percent year on year in the last so many years. Most of the processors are taking active interest in distributing sapling to all the farmers and creating enthusiasm among them. The direct indicator that farmers' interest is high can be seen in huge demand for saplings from the developmental agencies.

Another good aspect is that Cashew apple, which is wasted everywhere in the world, is getting a new lease of life, especially in Maharashtra, an organisation called 'Keshav' has taken initiative to procure cashew apple and has supplied it to one of the juice making MNC's of the world successfully. Also the Prime Minister of India has also called the industry to utilise the much wasted cashew apple. If you can utilize cashew apple it could directly translate into an extra income of 30 percent for the farmer and directly able to cut down his costs. May be the concerned state governments should announce good incentives to develop this particular fruit. Another indicator pointing towards boom in cashew saplings is seen in the form of increase in state auctions. Karnataka State Cashew Development Corporation has sold almost 20% higher over year, and Andhra Pradesh State Corporation involved in that also doubled its sale of sapling over last year.

Domestic cashew kernel consumption has driven the processor to increase their processing capacity. In turn the processing community has put pressure on the raw cashew. This has percolated down and finally the farmers' interest has to be rejuvenated as cashew prices are growing 10 percent year on year. Definitely this growth rate will be maintained going forward. **By 2030 India will be in a position to produce two million tonnes of raw cashew nuts.** Thanks for the organisers for giving the opportunity to speak on this occasion.

**Mr Ashok Narayanan:** Very enlightened to hear about the vision of two million tonnes of raw cashew by 2030. That means lot of cashews to processors and lot to consume. Now I would call up on Mr Pierre RICAU. West Africa is the largest single continental area producing raw nuts and the season has just commenced. What will happen there in the next three to six months will shape the cashew business for 2016.



**Mr Pierre RICAU, N'kalo Service, RONGEAD- Forecast and situation of Cashew Sector in West Africa**

West Africa raw cashew nut exports in the last two decades have come a long way. Exports growth which was at 28,000 tonnes per year during the period 1996-2000, has grown manifold to average more than 136,000 tonnes per year during the period 2011-2015.

Due to lot of cross trade happening across the African countries, it is really difficult to estimate the exact production figures of raw cashew nut produced by various West African countries. The estimates were based on exports statistics from various agencies, working with traders, monitoring with locals to know about cross border trades, and the estimates may vary 5 percent on either side.

The projection in 2015 is really very different from what people thought about West Africa. Many people of West Africa are still holding processions of old statistics which are 3-4 years old, but West African cashew sector is growing very fast. **In 2015, West Africa produced 1,551,000 tonnes of raw cashew nut, with Ivory Coast**



**being the top producer at 700,000 tonnes, followed by Guinea Bissau at 200,000 tonnes and Nigeria at 175,000 tonnes.** Currently, the only country that we have good monitoring of projections is Ivory Coast.

Lots of cross border trade happening between Nigeria and Benin, the same with Guinea Bissau, Senegal and Gambia, and with Guinea, Mali, Ghana and Burkina Faso through Tema port, which is the main source of export. Last year in Guinea Bissau most of its produce went through Bissau port.

**There are three main cashew producing areas in West Africa. One area is in the border of Benin, in the Central and West of Nigeria. Next one is the Central West African position, biggest one, which is north of Ivory Coast, central parts of Ghana, south of Burkina Faso and Mali and East of Guinea and the last one is Guinea Bissau and Casamance in South of Guinea.**

**Weather situation in West Africa**

Rainy season in Africa started a bit late during June/ July last year. Normal to higher than average rainfall was received in the peak season i.e., during August/ September. Higher than normal rainfall occurred during the month of October and November, delayed the flowering season. Fewer/less rainfall during December/ January is actually good for flowering/fruitletting.

In 2015 crop was late by two weeks and this year it is likely to be delayed by one month. Most of the trees are

bearing lot of fruits but still in the early stage. Currently in Ivory Coast less than 10 percent of the trees already have corrugate fruits and most of the trees are bearing lot of fruits. **Expect main harvest to begin during the first half of March.**

During the harvesting season small rains/showers are very good for flowering/fruitletting, but heavy rains can stop fruitletting. This year the weather department service of USA doesn't expect too much heat or rains during harvesting season.

We have developed a production forecast model for West Africa. **Based on that in 2016 West African crop is at least 200,000 tonnes higher than last year estimated crop of 1,551,000 tonnes.** The main factor is that most of the cashew in West African planted in the last 10 years and another 150,000 cashew saplings are to be planted in the next five years. If this trend continues then expect West Africa to double its raw cashew nut production in the next decade.

**Finally, we expect raw cashew nut prices are likely to decline towards the end of the West African season. Strong competition for RCN at the beginning of the season but the second half of the season is very uncertain.**

**Mr Nguyen Duc Thanh, President, VINACAS - RCN Crop Prospects in Vietnam and Cambodia**

The Crop in Vietnam is similar to India. **In Vietnam, there are over 1000 processors. According to 2015 statistics Vietnam has processed 1,300,000 tonnes, with 371 processors can export the kernel.**

From last year until now the market has had a lot of defaults. Everyone has competed with each other to buy raw cashew nuts. It pushes the price of raw cashew nuts while price of kernel was stable. I think some of you know very well that I have an experience of over 30 years in the cashew industry and I also have a factory but actually

I don't know what is going to happen in the future. As you know in 2010 lots of factories closed. I fear the same may happen in 2016. With every up move in RCN prices, it is going to be very tough for processors. Hopefully tomorrow we can discuss some of the processor's plights and how to seek support from the kernel buyer.



**Vietnam is the third largest producer of raw cashew nuts. Vietnam produces about 500,000 to 550,000 tonnes.** During the period 2010 and 2015, the farmers had actually cut cashew trees in about 50,000 hectares. But in the recent two years, this issue has not happened because the price of raw cashew nuts has increased. However, whether this is going to happen in the future or not that I can't say. Vietnamese processors will now try to push the domestic cashew consumption.

Last two years Vietnamese didn't have enough raw nuts to consume. That's the reason we saw domestic consumption at 5,000 tonnes in 2015. **In 2016 Vietnam is expected to increase its domestic consumption to 10,000 tonnes. Domestic price of 320s USD 11 per kilo , similar to Indian price.**

**Actually Vietnam has the advantage over that of Africa possibly in raw nuts in terms of technology and in terms of organization. We also have good market in China.** Last year China brought 79,000 tonnes of kernels from Vietnam. We hope in the very near future China will continue to increase its imports to 100,000 tonnes. Olam agro Indian factories also exports to China. I believe that there are people in this conference agree with me that

the prices for Chinese markets are always higher than EU markets by about 20-30 cents per kg. The issue is how to assure that the product is actually good.

In the RCN side, we have experienced some contracts default, just shipped part of quantity signed. We need to address these issues.

**Mr Ashok Narayanan:** We have heard some of the concerns of Vietnamese RCN importers, which will be addressed in the conference.

#### Major takeaways from the panel presentation

**There is a crop delay in all origins by about 2-4 weeks. Cambodia crop seems to be on time. But the main thing is none of them sense potential impact on the volume of the crop despite delay in commencement of the new season.**

**There is view that in Nigeria even though the crop is delayed, it may be short in volumes but it could well be making up in terms of outturns. Last year there was a big problem in Ivory Coast, primarily the outturns on an average were 2-3 lbs below normal, which in real terms takes away 8-10 percent decline in yield.**

**The growth in West Africa is absolutely amazing. 175,000 tonnes in Nigeria, 150,000 tonnes in Benin and thus pushing the West African crop to 2 million tonnes in the next few years. This is something that we have to keep strongly in our minds when kernels are expressed in terms of pricing.** This kind of volume expected as well as availability of raw materials expected from the market, I think it calls for an abundant caution when it comes to pricing.

I conclude by saying that the kind of volume numbers and projections promise very healthy business provided the risks that seem to be inheriting raw nuts are adequately addressed by stakeholders.



#### Question and Answer Session

**Question by Mr Anga, Nigeria: Mr Vasudev Barkur, during the presentation you said for the next 10 years you don't see processing of cashew in Africa is viable. What is the rationale behind this kind of thinking because Africa will be keen on shifting from dealing with raw nuts to processing and so on? Now your thinking is different. Could you explain?**

**Mr Vasudev Barkur:** There is a slight misunderstanding of my statement. As per my best understanding African production is in the region of 1.5-2 million tonnes. If we think, the entire 1.5-2 million tonnes is going to be processed in Africa completely ie 100 percent, then it is not going to happen in the near future. That's what I wanted to say.

Processing in Africa has just begun, probably in the last 3-4 years. It is picking up rapidly, especially in Mozambique, which is processing almost 50 percent of their produce. But that is not the case in Tanzania, which is just processing 5-10 percent of their production. Like-wise West Africa processes at best in the region of 200,000-300,000 tonnes. Thus, we have a long way to go.

Cashew processing units up to 10 tonnes a day can be operated with relative ease in Africa; however, if you increase the capacity to 20 tonnes a day and above, there are multiple challenges. First, it is highly labor intensive industry. Second, a lot of local challenge involved in that. Third, we need to put in adequate investment.

Moreover, every country's atmosphere may not suit cashew processing. Tanzania levies USD 160 per tonne as duty on export of raw cashew, which is exempted when you process cashews locally. Thus, technically, USD 640 (160\*4) per tonne of kernel concession (benefit) you get when you process cashews in Tanzania. Like-wise, benefit to a processor in Mozambique on export duty waiver is anything between USD 150 and USD 200 per tonne RCN.

Though cashew processing capacity is building up in Africa year after year, RCN production is also going to increase simultaneously. So, at least for a decade, cashew nut will still be supplied out of Africa to the rest of the world.

**Question by Mr Vishal (supplier of jute bags for raw cashew nuts to East-West African countries) - For the packaging of raw nuts, is it advisable to pack all RCNs in new jute bags imported from India or Bangladesh? Since the jute bag prices are going to increase, it may lead to increase in price of raw material. How it play to the overall production and exports of RCN?**

**Mr Vasudev Barkur:** Cashew needs breathing space. For cashew, sisal or jute packaging is ideal. In traditional countries, it has been Jute. In some countries they use sisal pack, especially in Tanzania. At the buyers end, increase in jute price may have an impact on cashew price. It used to cost us around USD 10-11 per tonne. Generally, we use 11 jute bags to pack one tonne of raw cashew. Some of the countries imposed heavy import duty on jute bags, which increased the cost further. However, it is not going to have a big impact on the overall business at large.

**Question by Mr Rajendra Sabat of OCPA**

- Need clarification regarding percentage of processing to production of raw cashew nut in African countries.
- Is there any initiatives undertaken by African countries (other than Tanzania, which is doing better) regarding quality improvement of RCN (amount of moistures, amount of defective nuts, foreign matters etc.,)? Is there any precautionary measure taken

by the concerned government authorities for the betterment of the cashew industry as a whole?

**Vasudev Barkur:** In terms of percentage of processing vs overall RCN production, considering the fact that Africa produces somewhere in the region of 1.5 and 2 million tonnes and processes within Africa not more than 300,000 tonnes, one can say Africa processes about 15 percent of their produce.

I know that most of the governments in Africa are conscious of the fact that they don't manage quality properly and thus realization is low. We as a responsible private player participating in cashew trade business and also in processing area, we will take due care to ensure that cashew processors make money and whatever we ship to someone will adhere to the necessary norms of raw cashew nut. I am sure that the various governments and NGO's initiatives will talk of the problems mentioned here.



**Mr Pierre RICAU:** Everybody is talking about 20%, 50% or 100 percent of local raw nut cashew processing in Africa, which is not possible in the initial years. When someone enters a new commodity, say cashew, we can at least compete in cashew processing. Cashew production is going to increase so fast, how much quantity of raw nuts going to be processed in Africa; it is difficult to judge in terms of percentage. To process huge quantities of raw nuts then you have to build a strong signal as we face intense competition from Vietnam and India. Last year was really difficult for West African processors. May be in

the next five years cashew processing in West Africa may be easier. This window is open. It is needed as it creates tens of thousands of jobs in West Africa. This is indeed a huge challenge.

**Question by Mr Deepak (commodity trade house with headquarters in Singapore) -Cashew Kernel prices are stagnant in the last three years, while raw nut prices have increased substantially. Is it viable for the African nations to increase the production of raw nuts?**

**Mr Ashok:** Regardless of uncertainty with kernel markets, kernel prices have been stable. However, seed prices have gone up and stayed over there. This is a boom and bonus for farmers. They should produce as much as they can and reap the benefits of higher raw nut prices. Whether these are sustainable markets or not will be determined later this year, if the production is up again. I think production should keep growing in Africa, based on the various group discussions over here. India is saying the same thing that they should increase the raw nut production; Vietnam is also doing the same. As long as prices are reasonable and there is a reasonable return on investment and efforts to the farmers, they should continue to increase the production.

**Question by Mr Anga, NCAN: Mr Pramod Kamath, you have said that India will produce 2 million tonnes of raw cashew nuts by 2030. Is this a statement from Government of India? I want to know the specific plans to achieve the same. I would like to know any plans to utilize cashew apples in India?**

**For VINACAS: You said in your presentation that domestic consumption for cashew kernels in Vietnam was 5,000 tonnes in 2015 and you hope to improve this to 10,000 tonnes in 2016. What are the plans you put in to achieve this?**

**You said there is a price increase of 20-30 cents on an average when you sell kernel to China visa-vis Europe. Do you feel Chinese market is more viable than EU? Is that true, is that what you are trying to say?**

**Mr Pramod Kamath:** It's not an official statement from Government of India. What I have derived is the ambition

of all raw cashew processors in India. If you see the trend, RCN prices have increased by 10 percent year on year over the last six to seven years. Increase in RCN price in India is leading to growth in India. Indian cashew crop in the worst case scenario is around 5.5 lakh tonnes and in the best case scenario is likely to be around 7-7.25 lakh tonnes. Even if you consider 5.5 lakh tonnes with growth rate of 10 percent annum, then easily the figure of 2 million tonnes will be achieved by 2030.

Processing capacity is growing rapidly due to mechanization and other factors. So definitely the price pressure on raw cashew nut will be there.

Cashew apple has always been used in the state of Goa for making liquor out of it named 'Feni'. But now there is a thrust on the part of government and is actively looking at utilizing the cashew apple, which is at the least about 2.5 million tonnes. One of the juice manufacturers was supplying cashew apple juice to a subsidiary of Pepsi co for mixing it with other fruit juices.

**VINACAS Chairman:** The consumption figure of 5,000 tonnes for 2015 was derived from the ministry of trade. VINACAS is also taking steps to boost domestic consumption and expects it to increase up to 10000 tonnes in 2016. Actually, Chinese market is our traditional market and this market is ours. We also hope to expand our market reach to US, EU, Australia and New Zealand as well.

**Mr Ashok:** The Chinese market is active at certain points and is very demand centric. There is also a talk about quality aspects. The FAQ that is sold to US and EU are slightly lower caliber than what goes in to China. There are two segments in that one for premium markets i.e. W240s and W320s. Second segment is about DW's and DW2's and on the very low grades. So the premium is partly connected with quality.

**Question by Mr Giridhar Prabhu- From Vietnam perspective do you consider now India as a rival or competitor? In the last nine months who has given the price leadership for both RCN and kernels from April-2015 to current price, because given contract,**

**evidence says that Vietnam has always paid higher price than India for RCN, but kernel prices are always lagging by 5 to 10 cents when compared with India.**

**Mr Ashok:** The competition becomes relevant in terms of price variations. Vietnam is often stated to have paid higher prices than Indian processors for imported seeds. But I can look at it in two ways. Vietnamese are very efficient and very much lower cost producer than India. Synergy will testify the fact that Government practices in Kerala make processing untenable, very expensive, which makes Kerala less competitive. But in other parts of India it is relatively more competitive. May be Vietnamese may be little less ambitious when it comes to profit objective when compared with Indian side. Of course cost of living in India may be higher.

**Question by Ms Vinita Venkatesh, KPCT- We are aggressively marketing the development of cashew processing cluster outside the port. I was very happy to hear about your comments for the first question that it will take very long time for West Africa to actually process everything that it produces. What is your view about the advantages of cashew processing in India vs the cashew processing in West Africa, in terms of cost, efficiency, and others factors.**

**Mr Vasudev Barkur:** Cashew processing started off with India and has been taken over to some extent by Vietnam. Now each and every country where cashew is grown look at many things. Why raw cashew is going elsewhere? Why can't we add value here? Think about processing, not just revenue side of it, and forex side. It creates huge value addition within the country and it creates huge employment, creates corpus, bring about huge social change in life for many people.

I just want to share the experience of our own processing plant, which is in Southern Tanzania; around 5,000-6,000 tonnes of cashew are grown over there. This year, the crop was much better. We provide employment to 1000 people over there by the way of cashew processing facilities. In that 95 percent of work force is women, which means 950 families. So the government in Africa has realized this and they feel that cashew processing can be made sustainable otherwise the whole world

may take the originating countries for a ride by pricing it the way they want. So the processing factory brings in a lot of stability. In the time to come Africa would look at processing 100 percent of what they produce. So it means just a shift of certain things. It happens over a course of time. We can quote Kerala, which was once dominating the processing industries and now because they have not made technological advances, planning and implementation on time, processing industry have started moving away from Kerala to other neighboring states such as Tamil Nadu, Andhra Pradesh, Odisha and so on. It is just that Africa has its own advantages and disadvantages. It is not easy to run processing factories in Africa, there are many more of challenges. But eventually, the processing industry is going to shape in Africa, cost of labors and skill of labors are going to catch up and will take its own time.

**Audience poll**

**Do you expect more volatility in RCN prices in 2016 compared to 2015?**

**1) Yes 2) No 3) No comments**

**Ans: 1)68%, 2)27%, 3)5%**



**Mr Tola Faseru, Executive Chairman, National Cashew Association of Nigeria**

WCC is a wonderful platform, which is giving everyone an opportunity to interact, to bring in their

challenges to the forum where possible solutions are being provided, by n large creating a platform for transparency within the cashew industry. I think cashewinfo is doing a great job and should continue their good work.

## Panel-2: Cashew Kernel Markets in 2016



Mr Jim Fitzpatrick- "Snap shot on European Cashew Kernels Market"

**European kernels markets have grown over 12% average during the four years between 2012-2015. Bulk of cashew in the European Union was consumed as snacks.**

European cashew kernel import is mainly concentrated at Netherlands accounting for 42% of the imports and the top five (Netherlands, UK, Germany, Italy and France) accounting for 85% of the imported kernels. Netherlands is the entry point of distribution of cashew kernels.

In 2015, first 11 months Vietnam's share of European imported kernels rose to 68% when compared with 58% in 2014. Vietnam's share has gone up at the expense of India, Brazil and Africa. India's share of European imports declined from 27% in 2014 to 23% in the first 11 months of 2015. Brazil's share dropped from 7% to 3% and that of Africa from 6% to 4% during the above mentioned period.



Vietnam's share of European kernel imports continues to increase year on year since 2002 and continue to dominate the European Union. During 2002 and 2006, India dominated the European Union kernel markets and share was almost even with Vietnam. In 2007 India had a slight edge. But Vietnam overtook India from 2008 onwards and still holding supremacy over India.

**When compared with 2007 vs 2015 (considering first 11 months of the year) Vietnam's share of kernel imports to European Union has grown by 205%, India -35%, Brazil -47% and that of Africa 3%.**

### European Buyers Requirements

The key thing to understand European market is buyers' requirement. One has to watch out for Aflatoxin, Phytosanitary and Contamination; Traceability; Product Quality Specification, Cert. of Analysis; Competitive Market Pricing; Packaging Standard handling of materials; Reliability and contract fidelity, which is the most dangerous thing; and finally access to product innovations.

Let us look at some of the important trends. As far as US market is concerned food safety is of primary concern. European laws are driven by food safety concerns and looking for consolidation with fewer bigger and powerful buyers.

Consumption level of all nuts is going up at all levels across the European countries. **In the case of cashew, consumption has gone up due to stable prices. Growth in consumption is driven by increased snacking, healthy eating and stable prices. Here again the final cost is driven by all the powerful super markets,** telling the processors, roasters what they need and there is no choice in that.

This is no longer the market trends in to speculation. This is a market, which cements relationships and understanding buyers' requirements. Ultimately the buyers understand the processors needs and their problems. Cashew kernel prices were relatively stable in the last three years. In terms of dollar cashew kernel WW320 FOB price was higher by 14 percent of the lowest price in the last two years. But the same in Euro/lb terms moved up 41 percent. Long term outlook of European market is very positive. **Buyers' requirement is becoming more and more complex and requires long term relationship with suppliers.** Growth in consumption may be interrupted due to price rises going forward in 2016.

### Mr Marc Rosenblatt- "Developments in the US Kernel Markets"

Cashew kernel traded relatively stable and thus allowed

lot of planning and promotion on the part of buyers.

**Since 2012 cashew kernel prices were relatively stable, and moreover adequate supply allowed buyers to get what they wanted. America's share of cashew kernel consumption is about 20-25 percent.**

Cashew demand was benefited from a relatively low price and moreover it was cheapest among other competing tree nuts in 2015, but that is not the case in 2016. Moreover strong US dollar aided in the consumption growth of cashew kernel. Cheap and competitive prices of cashew when compared with other nuts were resulted in strong growth in confectionery usage. However, demand is falling now due to higher LP prices, almost doubled when compared with 2013-2014 prices and on cheaper substitutes.



US government recently has passed Food Safety Modernisation Act (FSMA). This has increased documentation requirements, need high quality third party audits and FDA is concerned over salmonella contamination. There is a genuine concern for food safety and certainly FDA is going to pursue with that. American cashew market is growing but challenges and uncertainty remain. Buyers remain cautious considering uncertain global economic outlook. Cashew prices remain attractive, but no longer the cheapest among treenuts. Food safety is a primary concern in US markets.

**Mr Rahul Kamath- "Indian Kernel Markets"**



India is the world's biggest importer, processors of raw nuts, and second in terms of cashew kernel exports. India is the biggest consumer of cashew kernel, second largest producer of raw nuts and also is one of the fastest growing markets. So it is of utmost importance to know about what is going to happen in the Indian market in 2016, which will shape up the future of global cashew market.

It is very difficult to assume the size of the Indian cashew market, which is very difficult task due to variety of reasons listed below. Indian trade data is for financial year (April to March), which also suits India cashew year.

When we arrive at the Indian cashew consumption data, I assume that the carry forward inventory is almost same year after year and I also assume that the yield is at 23 percent. I have ignored the import of cashew kernels. The biggest challenge that we face while assuming cashew consumption in India is that, India being a very big staggered market, since India has large unorganized sector and it is impossible to gather correct data. **There are more than 25,000 cashew traders in India, 3,000+ cashew processing units with over 200,000 cashew farmers.** But unfortunately there is no reporting authority or Board like Almond Board of California.

That being the case, it is only based on guessing that we can arrive at the consumption of Indian kernel markets and the best guessing we always do is to see total quantity of raw nuts processed and how much cashew kernels exported.

**From 2004-05 to 2009-10 Indian cashew kernel consumption have grown at the CAGR of 11 percent. But during 2009-10 to 2014-15 the growth has dropped to CAGR of 6 percent,** which is very surprising. More importantly in terms of absolute growth it has gone down from 65,273 tonnes to 49,858 during the above mentioned period. Now let us understand as to what has happened to the growth of other tree nuts such as almonds and pistachios so as to see whether my assumption on Indian cashew growth is right or wrong. Because the data on other nuts are more authentic as India does not produce anything and everything is imported. **Almonds imports in to India have grown by CAGR of 24 percent from 2004-05 to 2009-10. But the growth has come down to 7% during 2009-10 to 2014-15. Similarly Pistachios growth has come down from 17 percent to 4 percent during the above mentioned period.** So my initial assumption on cashews was right.

For all the nuts Indian growth has gone down in absolute terms. Now let us analyse why the consumption growth of cashew kernel has come down. Now let us look at the cashew kernel price in the last one decade (average realization of cashew kernel export price). **Cashew kernel price has gone up from INR 214 per kg in 2004-05 to INR 509 per kg. When the Indian wholesale inflation is close to zero, nut prices are going up by 10 percent per annum, which is unsustainable and the growth may come down going forward.** Other reason is that Indian rupee has weakened, which resulted in increase in raw cashew nut imports. India consumes more of broken grades and their prices have gone up sharply.

Indian cashew kernel supply has been increased by 13 percent in 2015-16 (Apr-Jan) when compared with

2014-15(Apr-Jan), mainly due to sharp drawdown in export of cashew kernel. That means supply is more than our stated consumption of 6 percent. This clearly states that the world is pushing more cashews in to India and asking us to consume more.

**Looking in to 2016----Reason for worry**

Average export price has gone up by 12 percent in 2015 vs 2014. Other dry fruits prices have collapsed in the last four months (Almonds, Pistachios, Raisins)...but cashew prices are still going strong. After a long gap almonds prices have become cheaper than that of cashews. Moreover dry fruits traders had lost lot of money and they don't have money to import more at current lower prices. Changes in taxation systems such as GST may increase the prices of cashew going forward, which may affect the consumption of kernels. Fall in commodity markets across the globe and fall in share markets in India, which means cash flow is very less. Indian Banks have become extremely cautious in lending as NPA's continue to pile up. Working capital requirements for Indian cashew industry has gone by more than 50 percent in the last two years. Considering the above factors the ability of the person to buy raw cashew nuts will be limited. Finally Indian food safety authorities are more vigilant now.

**Looking Beyond 2016**

If you look at long term picture, India is the fastest growing economy in the world and will be third largest economy by 2025. India's love for cashews in ice-cream, chocolates, biscuits, sweets or any other dishes will continue. Cashews/dryfruits as a gift during festive season, which is considered as a fashion will never die down. **Indian cashew consumption in the long term is going to move higher steadily.**

**But 2016 is going to be a extremely challenging year. According to me it is not a question of whether the prices are going down or not, but according to me it is a question of when it will come down.**

**Mr Mohamad Meeran Saheb - "Developments in the Middle East Cashew Kernel Markets"**

Before going in to the subject I hereby say that the concerned authorities have done a lot of efforts in respect to promotion of increasing the cultivation of this produce by farmers and farm owners all over the world and also done so much effort to upgrade technologies in processing.



The policies that are in place are highly commendable and good for the healthy growth of this industry. Having said so, I still feel something is lacking somewhere and this industry has not grown up to its potential and different kinds of problems are faced by the people involved in this industry.

To find out where the industry is lacking, let us make a comparison with one of the alternative products to cashews, and the main alternative product is almonds. The almond industry in terms of cultivation, processing, regulation, research and quality control is far ahead of cashews.

I do agree that the basic difference with respect to geographical origins of almonds, being grown in developed and progressive countries whereas cashew nuts are mainly grown and processed in developing and under-developed countries. However, because of the modern technological and scientific developments this

difference has little role to play. I would like to compare and contrast between these two products and want to have the comments from the concerned authorities. We have been trading almonds from US for the last 20 years and cashews for the last 40 years. At this cashew platform, I would really say that the comfort we have from trading almond is far better than trading cashews. Since we are heavily involved and engaged with the cashew exporters from India and that being the main product of interest from this region I would like to focus mainly on India cashews. Moreover it is easier to comment on Indian cashews as I basically hail from southern parts of coastal India.

First of all in this regard I would like to put forth my opinions addressed to Cashew nut Export Promotion Council of India related to the land for cashew cultivation. As far as I know there is a lot of **vacant land in the Western Ghats ranging from south to north in the west coast of India, which is very suitable and fertile for the cashew cultivation.** I feel CEPCI should take up this matter with the concerned state government authorities in India. If that is the case, and lot of vacant lands can come under cashew cultivation then it can benefit the farmers and government too. **If these lands are brought under cashew cultivation there is no question of decline in cashew production in India.** I hope this point will be considered by the concerned authorities.

The second thing which I would like to bring in to the notice of CEPCI was an observation noticed by me while I was in cashew conference in Kochi in 2015. I saw so many new and advanced processing machineries which are really quite appreciable and commendable. The concerned agencies in the government should encourage the young talented people to come into this field and bring in a lot of innovation by the way of research and increase the productivity and cultivation practices and upgrade the system of processing.

Third I want to talk about the present cashew processing system in India. It is obvious fact that some of the

leading trade houses in the industry have made highly commendable developments and have achieved the state of art status in the last fifty years of existence, bringing a great name to India internationally. They have really struggled very hard to make this product a national symbol. On this occasion **I am very proud to say that the credit of bringing the cashew to the world platform should go to India. However, it is a known fact that many factories in the remote areas of India are in very pathetic conditions from the point of view of hygiene and environmental concerns.** You can easily imagine what kind of impact it can have on the quality of the product from such factories. I don't need to blame them nor discourage them. But I found CEPCI fully responsible for their pathetic conditions. **The small processors will never progress unless they are personally attended and offered help for up-gradation.** But it is very unfortunate to say that some of them are being exploited by the main exporters who grab more export orders than their stated capacity. In most of these cases such shipments landed in quality problems in destinations either in the form lower quality or infestations. In this occasion, **I would like to request CEPCI to make quality control mandatory either at the origin place of tracking or at the customs before it goes for exports.**

Now I address all the bankers and the exporters. Sincerely request you to talk to your own consciousness and adhere to basics of business and not to be too greedy to make huge profits at the cost of your customers' faith, who trust you and have paid to you well in advance before seeing the condition of the product. In fact it is the importers who carry all the risks and responsibilities' on their shoulders to sell these goods on-board with buyers as well. Most of these cases, sales are done on credit basis. Thus the sword always falls on the head of the importers who has paid fully. Whereas exporters stays quietly at home, because they will get fully paid.

Moreover I want to say that the consumption of cashews has gone up so much in the new regions of Middle East in the recent past that it has replaced many other nuts.

In view of this and to take this product more and more popular and familiar, there should be a strict control on the quality, so that the final consumers give more and more importance to this product in place of other nuts. If these quality aspects are not attended immediately and if we allow the manipulators to play with the quality, there is every possibility that these manipulators may go down to any extent to suit the lower prices and finally may end the well established brand of Indian cashews worldwide. Meanwhile I would like to say that the health authorities in the importing countries, particularly in the Middle East are strict with the food products which are not in compliance with conformed local food standards.

Having gone through all these incidences, I would like to suggest **the world cashew council and related councils in respective countries to ban the packing of cashews in tins and make use of transparent flexi packing mandatory throughout the world.**

Finally, I want **the importers in the importing countries to be more realistic and practical while negotiating the volume of business keeping in mind all factors such as demand and supply, financial capabilities and logistical capacities**, so that we don't face any more commercial crisis in the future similar to the one which we have faced in the past.

**Question and Answer**

**Question by Mr Anga: What should Africa do differently in order to increase the raw cashew nut production and kernel export into European countries? I would like to know the source of data presented by Mr Rahul Kamath.**

**Why did you recommend total ban on exporting cashews by tins, as Nigeria is still using tins?**

**Mr Rahul Kamath:** All my data's of imports and exports are from the Cashew Export Promotion Council of India (CEPCI). As far as production is concerned it is taken from Directorate of Cashewnut and Cocoa Development, India (DCCD).

**Mr Mohammad Meeran Saheb:** If you pack cashew kernel in tins, you don't know what is inside. But that



is not the case with flexi packs. You can clearly see what is inside. Packing of kernels using flexi packs is also economical when compared with that of tins.

**Question by Mr Rajendra Sabat: What are the major reasons for which the US is now concentrating cashew kernels imports from Vietnam leaving India behind?**

**Mr Marc Rosenblatt:** It's not correct to say like that. The buyers are certainly happy to support India, Africa and Vietnam. As was mentioned the prices of kernel in India are higher as it has a very strong domestic segment. Right now, the price of W240 in Vietnam is about 15-20 cents lesser than that of India. Price is a driving factor certainly. Food safety is priority and we do insist on adhering to food safety specifications. However, no way we can ignore 20 cents differential.

**Question by Mr Jim: Do you think is there any prospect that India will stop exporting cashew kernels in the near future?**

**Mr Rahul Kamath:** No way. I think over the next five years India will retain the world leadership in the industry.



## Plenary Session: Meeting Kernel Buyers Requirements on Food Safety Norms



Panelists: **Mr Jim Giles**, Quality and Food Safety Expert-Moderator, **Mr Bob Bauer**, AFI, USA, **Mr Marc Rosenblatt** Partner, The Richard Franco Agency, **Mr B Jacob**, Managing Director, Trans Synergy Qualisystems and **Mr Gunjan V Jain**, Managing Director, VKC nuts

### Opening remarks by Mr Jim Giles

There are many important issues and among them the buyers' biggest and foremost issue is live infestation. Processors should find out what causes infestation and take measures to control the same. Foreign material control is the second most issue concerning the buyers.

There are 14 procedures that are very important for a cashew manufacture to be aware, based on what we have experienced while importing cashews into the US.

Adequate lighting while doing grading is a necessity. Taste is an important aspect and hence has to be tested by qualified person—to ensure organoleptic acceptability.

Beyond US and Europe, countries such as Spain and Saudi Arabia talk about social compliance. We have developed a program in ACA working with a few factories in Africa on social responsibility. Fair wages, working conditions, working periods, no child labour, no discrimination, freedom of association, record of staff training etc are a part of social compliance.

Food safety requirements in the factories, safety tests for chemical residues and micro-biological test procedures, metal detector for finished and incoming products, audit compliance and review of action are other requirements.

**Mr Bob Bauer- "Perceptions of US based Cashew Kernel Buyers"**

The survey results will give an idea about what the buyers of US face.



1. Where do you source your kernels from?				
Origin	White Wholes	Scorched Wholes	Pieces	All
Brazil				9
India	1			9
Vietnam	2		2	7
Africa				7

(figures indicate number of buyers)

**How do you rate the overall contract performance of sellers in each of the origins?**

(6-consistently excellent; 5- very good; 4-Good; 3-Can be improved; 2- Not reliable; 1- No comments)

Brazil: 5.6

India: 4.2

Vietnam: 3.5

Africa: 3.5

**Supply issues**

- Lack of material or not getting steady supply
- Foreign material
- Contract performance issues
- Inconsistent grading
- Unreliable COAs

	Traceability	Foreign Matter (pl. specify)	Condition (incl. moisture)	Sensory (odour/colour)	Live Infestation
Brazil	0	2	2	1	0
India	6	4	2	2	8
Vietnam	6	5	3	3	6
Africa	5	5	2	2	3

**Typical Product Quality issues (figure shows the number of respondent. Total respondents =9)**

**Specific Issues Mentioned**

- Brazil – Stones, High Moisture, Dark Color
- India – Hair, Could be Dry, Chemical Off Taste
- Vietnam – Blemishes

**Initiatives Needed in Next 1-2 Years**

Less foreign material, Better packaging, Better traceability, Eliminate infestation, Improve Microbiological substances, Salmonella, eColi, etc., Uniform grading, Improve contract performance, Stop buying kernels from unapproved or unknown (to US) factories and shipping them as your own.

**Mr Marc Rosenblatt on recent market shifts in the US**

Two main points are to be discussed here, one is the growth of private labels in the last 10-20 years, and we have seen significant growth of private labels rather than individual brand names. Retailers/supermarkets have their own brands in all sort of products, whether it is cashews or other nuts or sawdust or tooth paste. This is going to have a fundamental impact on the way business works and changes market dynamics.

**Second, 30 years ago importers decided what to buy, roasters created a product based on what was available**

**in the market and retailers sold what roasters produced. Today Retailers decide what product they want to sell and importers bring in the products their customers bought.**

**Impact on private label**

Most of the products must be within the specifications. The customers are buying the products which meet their requirements of the consumers.

Earlier, the industry was much slower to adopt to the changes happening in the market. When there is a price variation or differential between grades, it will take six months to one year to adopt, because of the long guidelines, brokers ability to negotiate with large retailers, which will take months. However, industry is much more flexible to adopt to the changes in recent times. There is a great uniformity across products. **Private labels could also create demand for not so popular products. For instance, we sell lot more SSWs of late, because it has certain quality standards for a private label.**

High quality standards have to be maintained by the concerned party, otherwise will impact the brand name and the image.

**FSMA framework for food safety**

**FSMA puts a lot of responsibility on food importers. Food safety is a major concern. It emphasizes on food supplier verification program and third party audits. All buyers require 3rd party audits such as HACCP and ISO 22000. Many buyers are looking for higher levels of 3rd party audits like BRC version 6, FSSC 22000, SQF level 2 and 3.** Tight controls are put in place, so as to prevent microbiological contamination. It also involves increase in documentation work, product guarantee, traceability of the product. Also it should be free from chemical residue, allergens and foreign material. Shippers should create documentation packets including their HACCP plan. FDA is concerned over salmonella content in nuts, not only in cashews but also in other tree nuts.

**Mr Gunjan Jain -"Indian Cashews Kernel Markets - Current Challenges"**

When we discuss about changing consumer expectations, many of us mention about very stringent US and European buyers. Lots of changes are taking place in India also due to modernization in trade and new food safety act. Indian consumers are becoming more aware and specific with respect to quality of cashews and other nuts. Moreover they are ready to pay higher premium if the quality of the product is good.



In India there is a huge increase in cashew processing capacity, with multiple locations in every corner of India, which was earlier, restricted mostly to southern parts of India. Due to usage of newer technology, the production efficiency has been improved substantially in cashew processing and hence the percentage of broken's' has come down.

**On Food Safety**

**On Food safety concerns, FSSAI, the regulator in India, is becoming very strict.** There is a need for compliance on labeling of your product, especially in the value added segment. Details of what ingredients are added, base of ingredients and origin need to be mentioned on the label. In the near future, may be at some point in time we need to put from where raw cashew nut is imported. On health

claims and benefits, as the products need documents to back that claims, studies need to be done to establish the mentioned facts on the label.

#### Lack of standardisation

As far as Indian context is considered **there is a lack of standardisation when it comes to grading of cashew kernels. There are close to 110 grades.** Even different factories of same supplier have quality variations for the same grade. When we buy other nuts, say for example almonds from California, we know which quality product suits our factories, what to look out in quality testing labs such as infestation, etc.,

**If cashew processors could work together and get a level of standardization on specification of various grades and also a list of various equivalent grades, then it will be easy for buyers to choose from even by paying extra money based on the product availability.** Industry must come out with some sort of standards on cashew grading soon.

#### Irregular pricing structure

- Offered prices are always in per 22.68 kg (50lb).
- Sale price is calculated in per kg basis.
- Packing/invoicing is on 20 kg per pack price.
- Need to have a common structure when it comes to pricing.

#### Why not follow a simple INR per kg for all purposes?

##### Packing

**In Tin packing, even though nitrogen is flushed we are facing infestation issue in two out of 100 tins in almost all lots. In addition to that there is a solder alloy contamination. Hence moving away from tins to vacuum packs is a welcome step.**

Lot of Indian buyers still prefer tin packaging over vacuum packs, although expensive, due to lot of transportation requirement. Moreover goods are being handled by manual labour for transit from factory to godown and from there to port terminal/local markets.

#### Issues in transit

Rough handling, breakage of cartonnes as well the contents inside and possible leakage of vacuum. But **20kg/22.68kg vacuum pack is not the ideal size to handle by hand. The industry should try to switch to 5 kg vacuum packing,** which is easy to handle and moreover buyers and traders will be able to identify if any quality issues in that rather than coming out with issues after few months.

#### Mr Baby Jacob - "Recent Developments in Quality Systems in Indian Cashew Processing Factories"

In 1963 Indian cashew industry introduced voluntary inspection, though that was not the case with other commodities. **In 1966 government promoted export council of India had made inspection of cashews mandatory.** Packing of cashews changed over the years. First, cashews were packed in tins with wooden boxes, and then came the CCC (corrugated cardboard cartonnes), which was the first turning point/milestones perhaps in terms of packing. Then the most dramatic change came in the form of flexi packing.

In Flexi packing, typical problems could range from infestation, leaky pouches, usage of non-food grade pouches to residual vacuum. These issues need to be addressed.



Today the demand of consumer is quite high and has changed dramatically due to increase in per capita income, improvement in science and technology, awareness on health, food safety and quality aspects.

Conventional processing methods have certain drawbacks as they are labor intensive; concerned only about product quality and neglected process quality.

**Lot of problems emerges due to change in processing methods from manual to mechanical processing. Important among them are (a) Absence of preventive maintenance of machines; (b) Ineffective cleaning of food contact surfaces; (c) Lack of awareness among workers; and (d) Contamination from dirt, slime, machine oil, metal parts etc. and increasing incidence of infestations.**

Now let us discuss some of the improvements in quality and food safety processes in Indian cashew processing factories.

Change in food safety concerns emerged due to WTO, SPS agreement, CODEX standards and finally the rights and responsibilities of member countries.

Some of the food safety concerns of importing countries such as US-FSMA, CT PAT, traceability of the product, FDA registration of food processing units, EU countries regulations, Japans buyers expectations and also end user's concerns and expectations. It is good for the cashew processing industries to have Food safety management certifications like HACCP, GMP etc., They also should take care of Personal Hygiene, Pest control, Waste management and monitoring food safety throughout the food supply chain.

**Areas which need attention**

- Skill development is needed for mechanical processing of cashews. The government of India is giving importance to skill development.
- Introduction of management tools such as Kaizen (originated from Japan), 5S
- Integrated approach for productivity and sustaining product quality
- Research in improving processing technologies and product development

**Track record of improvements over the time – Indian Cashew Industry**

- Installation of metal detectors, high efficiency hot chamber, steam processing of RCN instead of oil bath roasting, flexi packaging system
- conveyor system for Online checking, color sorter machines
- Aspirators and foreign matter segregators, Use of carton flexi packs, tins conforming to BIS standards/ specifications
- Use of hand sanitizers for workers
- Use of head gears, aprons, etc
- Implementation of Food safety management systems such as HACCP/FSMS/BRC/FSSE/IFS etc

Finally to conclude the demand for food safety and healthier foods would pose a lot of challenges to Indian food export industry, but at the same time it will also open opportunities for us to meet the food safety requirements of importing countries and also help them to adhere to domestic market stringent food safety requirements.



## Workshop on Action Agenda for the Next 12 - 24 Months



### Group Heads

Vietnam Group : **Mr Ashok Narayanan and Mr Gunjan Jain**

India Group : **Mr Giridhar Prabhu, Mr Baby Jacob and Mr Marc Rosenblatt**

Africa Group : **Mr Shaktipal and Mr Bob Bauer**

### According to Mr Shaktipal African point of view

The group feels that Africa is best in terms of traceability of the product. May be documentation is missing and hence on that part more needs to be strengthened.

On foreign matters, there are two different views ,big factories which are sizable feel that foreign matter issue is well taken care of. Another group which comprises small processors with lesser resources is of the view that there may be some challenges on foreign matter and Africa has to improve up on.

Challenges on foreign matter, in which Africa has to improve on the conditions such as moisture in kernel

On Sensory, first is colour—everyone feels that there should not be an issue-because Africa follows boiling and steam roasting and the colour is more or less fine. Market is true and still there is room for further improvement. In some places, where the factories were not offering that size, they tried to have per-cumulation of stocks, selling under same brands and then sometimes find problems with colour/ odour.

On the infestation side, the group felt though they are not that bad, but some origins have this issue; however it is not linked with what sort of material you are using, it's a function of beginning to end, plants have to strive for consistency while dealing with it.

**Mr Ashok Narayanan and Mr Charlie summarised the Vietnam group discussion**

Food safety from country's perspective, we have two way approaches, first work with right supplier, based on specifications, earlier on it was BRC-6 and now it is BRC-7, i.e., to know your supplier's supplier.

Second is on live infestation and foreign matter, how do we adapt and approach in Vietnam.

3C Approach- First C- company specific, buyers should buy from those suppliers who have the necessary certifications/ quality/audits etc.,

the supplier; therefore it becomes the best practice. One is the compliance and the other is cost. Any rejection based on live infestation/foreign matter will hurt the company's reputation and it will have an impact on country's exports. In response to the suggestions, VINACAS Chairman assured the delegation from Vietnam that it will discuss the problems and suggestions discussed at WCC and take up the matter with other members/associations and also with food ministry/trade industry (as VINACAS being quasi government body) and will set best standards and set of rules/regulations that exporter has to necessarily follow.



Second C is about "Country Standards"---For ex., China has CIQ quality standards. We requested the Chairman Vinacas to take the matter with members and to bring out action plans specific for Vietnam.

And finally third C is "Communication", this call for open understanding between all stake holders-buyers have problems with suppliers and vice-versa, the agency involved, VINACAS should enable communication.

China has an authority body to deal with, namely CIQ. If buyer rejects the material there is a penalty to be paid by

**Mr Giridhar Prabhu summarised the India group discussion**

On Foreign matter, we have the technology for ferrous and non-ferrous matter eliminations and light matters like aspirators, but we always welcome new technology like x-rays and scanners.

The specifications of AFI, permits up to 5 percent moisture content in cashew kernels. Increased moisture has issues for example clumping. The industry standard is in the region of 3 and 3.5 percent. Increased moisture at any stage has negative colour, hence cashews tend to be yellowish or creamy, it is likely to have bio-chemistry deterioration,



which could mean that even after packing some flavoured things can crop in and is likely to have more infestation risks. The AFI contract specification is at the maximum level of 5 percent, the group wants buyers to consider a request if is 3 percent guaranteed moisture then we will have 3 percent price increase at the time of contract factored in. The reason is let us have economics and contracts at acceptable level.

On odour and colour, the request from manufacturers to all rcn sellers irrespective of their regions is to have the moisture level not more than 8.8 percent. If RCN standards come to this level, (RCN delivered to factories with 8.8% moisture), then 99 percent of issues pertaining to colour and odour will be solved, which is my personal opinion.

On live infestations, India has got the highest score, which is regrettable. We are appreciative of Brazil getting zero. We look forward to getting technical information from Brazil/ anyone who can facilitate that. We are happy to learn from that. The general request is that any technology/mechanism that eliminates infestations without using chemicals/ pesticides/fumigations, heat is the only elimination point. So heat transfer not just by ovens but by infra-red/ultra-violet rays or any mechanisms that can eliminate the potential threat of micro-biological /salmonella, it means finishing line and we need expertise on that.

The view of the group was that Cashew is agriculture or horticulture product, a certain level of difference in flavor should be acceptable.

The group felt that specifications for cashew is more stringent when compared with other tree nuts like almonds. If specifications are to be revisited then we should have expertise of quality specialists and we need the mediation of neutral bodies such as CEPCI, AFI as buyers and sellers together.

The kernel specifications basically are not about the basic characteristics of the kernel, but it is about the presentation or the relaxation. Standards and specifications are something that we can't have stagnancy and it should be reviewed by the expert group periodically and come back to the industry with the solution.

■■■

## Plenary Session on - Meeting the Expectation of RCN Buyers



Moderator: **Mr Krishnan Nair**, CEO, KGN Group, Panellists: **Mr Sunil Dahiya**, Business Development Manager, ACA, **Mr Meitz Inza**, Executive Secretary, AEC-CI, **Mr Amrith Kurien**, Comafrique, **Mr R Balasubramanian**, RBS Maritime Services, **DR R K Bhoodes**, Federation of Indian Cashew Industries and **Mr Tola Faseru**, NCAN, President

### Opening remarks by Mr Krishnan G Nair- "In Search of El Dorado - Meeting RCN Buyer's Quality Expectations"

Cashew buyer's expectation is that they want to buy the best quality at the lowest prices.

### Quality Expectations

Commercial, Safety & Regulatory, Sentimental Expectations

### Factors

Controllable and Uncontrollable (natural disorders)

What do the buyers expect?

### Are current procedures adequate?

- Max are the bad things i.e., Max count, Max effective nuts, Max moisture, Max add mixtures
- Min is the good things
- Cutting out turn efficacy

### What are the initiatives taken from the supply side?

- The past (20-30 years ago)–was build on trust
- The Present-is built on necessity
- The future–will be built on safety

**Mr R Balasubramanian, "Delivered Quality of RCN"**

### Survey of cashewinfo.com

Cashewinfo.com survey of Indian RCN importers on the quality of RCN received from six main cashew growing countries viz., Ivory Coast, Benin, Ghana, Nigeria, Guinea Bissau and Tanzania.

	IVC	Benin	Ghana	Nigeria	Guinea Bissau	Tanzania
Foreign matter	100%	100%	100%	100%	100%	100%
High Moisture	56%	50%	50%	50%	80%	29%
Slightly Molded/musty RCN	88%	75%	67%	50%	33%	20%
Seriously molded RCN	43%	50%	50%	50%	67%	17%
Sprouted /rotten/Decayed RCN	90%	57%	50%	33%	67%	0
Port congestion	Yes	No	No	No	Yes	Yes
Operational delays	No	Yes	No	Yes	No	Yes

(The % indicates the proportion of respondent who faced the issue. For instance, 56% of the respondent had faced problems of high moisture when dealing with IVC origin)



### Recommendations from India

Dry well (<8%) before RCN is loaded in to the cargo so that moisture and mold problems can be avoided. Address foreign matter issue, deal port congestion and operational delays so as to ensure cargo reaches the destination within 30 days. The transit days from Tanzania at the most are 20 days and hence buyers are happy.

### Problems faced by buyers with delivered quality

#### Frequently faced problems:

- Wet Damage from Cargo due to condensation

- Large outturn difference.

#### Occasional problems:

- Pilferage of cargo from containers in transit
- Shipment of very old, completely damaged cargo

#### Moisture condensation in containers causes two types of damages/losses

**Direct loss arising out of damages like:** Decayed nuts, Blue kernels, moldy nuts and germinated nuts, which ranges 50-2000 kg/container, with an average loss of 200 kg per container.

**Indirect loss like:** Drying loss, ranging from 3 and 8 percent, dimness in the color of raw kernels, color change on roasting of kernels, foul smell and loss of taste in kernels and fungus growth between cotyledons. It is difficult to quantify indirect loss.

We restrict our estimation only to direct loss. But buyer demands compensation for the indirect loss.

RBS Maritime record of last three year performance indicate increasing trend in "number of containers with high moisture is given in the following table.

ORIGIN-WISE MOISTURE CARGO (CONTAINERISED )PROFILE									
Number of containers (20' & 40') Inspected by RBS									
ORIGIN	2013 – 2014			2014 - 2015			2015 -2016		
	Total containers	Moisture affected		Total containers	Moisture affected		Total containers	Moisture affected	
		CTRS	%		CTRS	%		CTRS	%
BENIN	3756	251	6.68	4817	118	2.45	6300	641	10.17
BURKINA FASO	213	14	6.57	376	4	1.06	916	1	0.11
GUINEA BISSAU	4135	975	23.58	3594	1053	29.3	3373	741	21.97
GAMBIA	1520	215	14.14	1334	312	23.39	638	49	7.68
IVORY COAST	7390	759	10.27	15196	947	6.23	15812	2508	15.86
TOGO	273	5	1.83	264	27	10.23	390	30	7.69
SENEGAL	442	50	11.31	1037	187	18.03	503	31	6.16
OGBOMOSHO (Nigeria)	124	17	13.71	103	34	33.01	286	111	38.81
Rest of NIGERIA	359	190	52.92	770	250	32.47	1627	811	49.85
MOZAMBIQUE	843	6	0.71	375	5	1.33	104	2	1.92
TANZANIA	5184	133	2.57	6546	306	4.67	4018	218	5.43
GHANA	4935	572	11.59	2678	379	14.15	2666	721	27.04
GUINEA	492	81	16.46	616	176	28.57	448	88	19.64
INDONESIA	722	144	19.94	350	58	16.57	875	29	3.31
<b>TOTAL</b>	<b>30388</b>	<b>3412</b>		<b>38056</b>	<b>3856</b>		<b>37956</b>	<b>5981</b>	
<b>PERCENTAGE</b>	<b>11.23</b>			<b>10.13</b>			<b>15.76</b>		

Source: RBS Maritime presentation at World Cashew Convention 2016

**Year after year the number of containers with high moisture is increasing, which is creating huge problems for the buyers, shippers and surveyors.**

Large outturn difference are due to inadequate drying of the nuts before shipment and inspection by inexperienced person at the port of loading. This needs to be addressed very quickly and effectively.

**Mr Meite Inza, AEC-CI, Ivory Coast**

My presentation will focus on the initiatives and actions taken to improve Ivory Coast Origin Raw Cashew Nuts Quality. To start, we will talk about Ivory Coast production; Ivory Coast possesses many specialisations, as it is a country with an agricultural vocation, cocoa being the first agricultural specialisation, cashew is presented as the second one; Cashew has been introduced in Ivory Coast by the end of 1950s and the purpose was to fight

soil erosion and deforestation, and in 1960 Ivory Coast production was about 6,300 MT; And to date, Ivory Coast production, according to 2015 statistics, is estimated at more than 700,000 MT. So we see a spectacular hike of 111 times in less than 65 years.

Ivory coast global market share is approximately 50% of the global supply. In terms of economic impact, we have around 400,000 producers, and 2.5 million people are directly or indirectly depending on cashew. **2015 statistics have estimated the exports around 650,000 MT; this represents half of the global supply. Ivory Coast exports are distributed in India, which receives approximately the half, followed by Vietnam with 46 % and then Brasilia with 4% and others destinations.**

AEC has been established in February 2010; our association regroups a hundred cashew nuts exporting

companies and represents more than 95% of cashew nuts exports volume in Ivory Coast. AEC missions are participating in the elaboration of cashew nuts sector national policy, promoting Ivory Coast origin cashew and defending Ivory Coast exporters interests. **In terms of initiatives taken in Ivory Coast for quality improvement, we have producers coaching and awareness on quality through the good application of technical training and post crop operations; We also have the establishment of bush bagging and export bagging for a better quality of the product, moisture control, moisture has been reduced to less than 10% and the implementation of weight and quality control certification delivery, which is done every year and the operators are identified; each operator receives an annual certification which is renewed every year.**



Marketing is done on the basis of some control documents, starting from farm gate to the port. There is another initiative that should be welcomed; it is the implementation of regional antennas of Cotton and Cashew Council for a better control and for the setting up of an active control system. From all these various dispositions, we got some results such as moisture content reduced to 10%, we also have quality improvement, before, the outturn was 46 and now it is 48.

Before I conclude, I would like to say that the AEC is considering the implementation of an international standard of quality control, with the support of Cotton and Cashew Council and with all our partners from

importing and exporting countries, so that together we can set up an international certification standard, allowing us, not only to improve the quality but also to speak the same language at all levels.

In conclusion, I would like to invite you to come in Ivory Coast because it is a promising market; and in November, there will be a conference called SIETTA and at the beginning of 2017, we expect to organize the forum of cashew nuts exporters; we invite you to come. Thank you.

**Mr Krishnan Nair:** 10% moisture was ok for break bulk shipments and for containers, Ivory Coast the largest exporter of raw nuts, should see that moisture should be brought down further to 8 percent.

**Mr Sunil Dahiya, ACA "Delivered Quality of Raw Cashew Nut"**



Some of the quality issues at farm gate in African Countries

#### **ACA's Quality Enhancement Initiatives**

##### **Why RCN quality is important?**

Product quality affects the demand of those products on the world market which in turn positively affects the price based on the quality of RCN. Hence the bottom line is better quality means, "More Money".

##### **The following parameters are important to have better quality of raw cashew nuts**

- Drying the nuts within the moisture content of 8-10 percent

- Better nut count and kidney shaped(>200 nuts/kg)
- Shell color – Grey, dark grey, greenish or brownish
- Free from foreign materials (free from stones, leaves, metal pieces, etc., with max tolerance of 0.5%)
- Packed and stored in jute bags
- 48 lbs and above Outturn is quality grade, while <43 lbs is considered as poor grade and usually it will be rejected
- In some African countries cashew is still considered as bush-crop and yet to be considered as ‘Transformation Commodity’.
- Senile and aged trees resulted in poor yields in Africa (450-550/kg/hectare) as against 1-1.7/ton/hectare in Vietnam)
- Minimal literacy and efforts on quality, organic and advanced farming techniques
- Less transparent price due to dependency of external final buyers
- Limited outreach to market information, pricing trends and experts advise

**Quality Quick fixes**

**The RCN quality could be improved by using the following practices.**

Use of high yielding varieties, irrigation at regular intervals with usage of fertilizers, regular cleaning and pruning, drying harvested nuts under sunlight, avoid usage of chemical/organic treatments for diseases and stop bush-firing for cleaning purposes.

**ACA - RCN Quality Enhancement Initiatives TIME (Towards Inclusive Markets Everywhere), USAID Donor supported project, which has life of three years (2015-2017) and to benefit five countries viz., Benin, Burkina Faso, Cote d’Ivoire, Ghana and Nigeria. The project is granted to ACA along with Global Shea Alliance and Borderless Alliance.**

The project is likely to focus on improving product quality, increasing consumer awareness, and for market linkages.

**Farmers Training initiative - Private sector project, aided by WALMART and Self Help Africa will be the**

**implementing partner. This program seeks to build the capacities of farmers in Ghana and Kenya by the way of providing training on good farming techniques.**

**ACA’s proposal to quality seekers & partners**

- Strengthened partnership with VINACAS, CEPCI and EMBRAPA for improvement in RCN quality, in the form of ‘African Quality Facilitator’
- ACA seal program extension to African cashew farmers
- Online assured quality Marketplace establishment
- Transparent and assured market information (prices, trends and news)

**Mr Amrith Kurien, Comafrique- "Recent initiatives in Senegal, Gambia and Guinea Bissau to maintain RCN quality"**

At present 2015/16 SEGABI produces around 250,000 tonnes of RCN.



In the last five years Gambia RCN exports were seen in the region of 65,000 and 75,000 tonnes. Production figures won’t actually match with export figures because of cross border issues. But that may not be the case in the coming years with a lot of steps taken by Senegal and Guinea Bissau borders to stem the RCN flow in to neighboring countries.

The quality is almost the same in all the three countries, in the last two decades or so, but nut counts are perhaps going up.

#### **Milestones in Quality Intervention in SEGA**

With regards to quality, it all started way back in 1979 Sokone PASA plantations with selected varieties, when the main crop groundnut prices started falling down.

In 2003 SAGIC project initiated in Senegal with the support of USAID to provide post harvest training to farmers and for trainers.

IRD CEP formed in 2009 with long term strategy guided by private sector with same objective and then in 2011 CAG (Cashew Alliance Gambia) was formed.

#### **Why Senegal and Gambia developed/earned a reputation?**

Cashew sector is driven by private sector, with not much intervention from the government side.

Long term relationship with buyers (quality conscious end users) and they stress on jute bags, provided infrastructure in the form drying yards for drying of nuts and spacious warehouses to store the produce.

Also constant training provided in handling post harvest quality by private sector

#### **Things to follow so as to achieve success in quality**

RCN should be dried properly irrespective of the quality. In the western most part of West Africa sometimes transit time will be as high as 65 days, so farmers bring down the moisture content to 6 to 6.5 percent is very useful. Understanding climate change is too critical as it will affect the quality of the crop and also ensure shortest possible transit route due to extreme temperature variations. Have to ensure traceability considering food safety norms and to maintain long term relationships and integrity in the supply chain.

#### **Mr Babatola Faseru, President-NCAN, VP-ACA "Recent initiatives to maintain RCN quality in Nigeria"**

When it comes to cashew, the quality initiative in Nigeria starts at the farm level and to ensure that cashew improvement committee (CIM) was established. Nigeria is also aware of the fact that raw cashew nuts quality can be compromised during harvest (due to improper post harvesting practices) irrespective of the seed quality.

#### **We train our farmers on how to detach nuts from apple and dry at the farm gate to 10% moisture content, pack the nuts in jute bags and then to store the produce in aerated warehouses.**

This procedure has resulted in reduction in post-harvest losses to the tune of 15-20 percent and thus preserving the quality of RCN. However, while enforcing jute bags for package of RCN was resisted at farm gate by replacing the usage of polypropylene bags. When RCN was packed in polypropylene bags, it has resulted in quality deterioration. But, we set up a structure named NCAN TASK FORCE to maintain strict compliance and thus today the packing of RCN in jute bags is the norm at farm gate.

In the past Nigeria recorded several cases of quality deterioration due to trans-shipment delays, long transit time and wrong RCN container placed at the vessel. To sort out the problem, in 2014 Nigeria launched cashew logistics meeting (CLM). Recently in December-2015, we have conveyed meeting of chief executives of major shipping lines as well as cashew exporters and forwarders, to assess our preparations for the 2016 season. As a result of our measures since 2014, **cashew now enjoys priority attention and preference being given by shipping lines, which will help us in reduction in transit time by about 15 days or more, which will positively impact the quality of RCN to be delivered from Nigeria to other destination countries.**

#### **Dr R K Bhooles, Chairman, FICI (Federation of Indian Cashew Industry)**

Standardisation of RCN Quality is part of Uniform Customs and Practice. As we aware that RCN trade is not well organized and that is the reason FICI has introduced

UCP in five phases.

- 1st phase defining the terms of RCN trade
- 2nd phase is about setting definite quality and trade norms and terms for the RCN trade
- 3rd phase is to introduce a standard contract
- 4th phase is settlement between buyers and sellers
- 5th phase is about the introduction of procedures and certain arbitration norms in the world cashew trade.

The price has to be quoted in metric tonnes and currency for domestic trade in their respective currencies, while for international trade it could be USD, EURO, Pound etc.

For forward shipments the maximum time period is 15 days and for prompt the delivery period is within 7 days.

The quantity of RCN should weigh in metric tonnes with five percent weight tolerance.

As far as payment terms are concerned, maximum 50% for advance payment, part payment 95% and the full payment has to be settled after the inspection of quality and verification of quantity.



The packing should be done in 80 kg jute/sisal bags (+/- 5kg). FCL-220 bags max.

The inspection point refers to shipment quality and quantity, landed quality and quantity.

**Out turn**

Regarding the standardization of RCN quality the most important characteristics is the out turn.

For the purpose of calculating outturn, single spotted nuts should be considered for 50% of the weight. Nuts with multiple spots, immature nuts and nuts with all other type of defects are to be discarded while calculating the out turn. The out turn should be measured either in lbs per bag or kgs per bag, with 0.5% tolerance for variation in the minimum guaranteed out turn should be allowed in case the quality testing is conducted at the destination.

**Count**

Count of RCN is defined as the maximum number of raw cashew nuts in shell of the desired moisture level per Kg, with a tolerance of 2 Nos. on the count should be allowed in case testing is done at destination points. However no tolerance should be allowed if the terms are on shipped quality.

**Moisture:** The maximum moisture level at the designated point should not exceed 8% by weight.

**Foreign Matter:** Even the residues of the cashew apple in the shell are to be considered as foreign matter and it should not exceed 2% by weight of the total consignment.

As far as the defective nuts (say for example foreign matter, rotten cashew, immature, oil strained etc.,) are considered, the total defects should not exceed 5% by weight.

**Sampling**

An attempt is also made with regards to sampling size of raw cashew nuts.

Less than 15 bags-full-all bags subjected to sampling; 16-50 bags-40%; 51-100 bags-about 30%;101-200 bags-20%, 201-500 bags-15% and above 501 bags 10% sampling to be considered.

**Method:** In case of discharge of RCN from container, sequential random sampling method is to be adopted.

In case of bulk lot, sampling can be done on distribution pattern for selection of the bags from lots using English alphabets, which will cover representative portion of the sample bags and for bulk lot, the maximum size of the lot should not exceed 100 metric tonnes.

To conclude, the specifications and norms mentioned here are the extracts of the draft formed after preliminary discussions with various stake holders of the cashew sector and this has to be further circulated to all members of the global cashew fraternity in order to ascertain their view points on the same and further criteria/norms if any will be included at a later stage.

**Points to ponder by Mr Krishnan Nair**

RCN Imports by India(MT)	900,000		
Extra- Moisture (%)	2	18,000 (MT)	cost@\$1300/ton =23,400,000
Deterioration (%)	2.6	23,400 (MT)	cost@\$1300/ton =30,420,000
Ad-mixture	1	9,000 (MT)	Cost@\$1300/ton =11,700,000
Into Thin Air		50,400 (MT)	\$65 million

From the above table it is very clear every year India is importing more than 50,000 tonnes of RCN which goes into thin air due to the causes mentioned in the table above and translates into a revenue loss of \$65 million for India alone.

**Mr Babatola Faseru:** Will take necessary steps to reduce moisture content at the time of contract from 10% to 8% at farm level. Also discuss with the shipping companies to reduce the transit time, as higher transit time also affects the quality of RCN.



**Cutting test results**

Cutting test results	Break up (gms)	Expected selection/grading results
48 lbs (273 gms)	270+3	41 lbs
	260+13	39 lbs
	250+23	37 lbs

*Note: Break up shows good+1/2 of spotted and immature*  
 From the above table an importer's stands to lose for same outturn of 48 lbs to the tune of \$175/ton.

**Dr. Bhodes:** In the UCP of unified contracts there should be specific mention about minimal level for all good things and maximum level for bad things. There is a specific character for the cashew from specific regions. Depending on the origin and based on past experience we can fix some laggards, which is the only possibility as of now.

**Cashew growing areas and their respective codes in Tanzania about 20-25 years ago, what is meant by CDJKL?**

**CDJKL refers to first quality**

C- TUNDURU, D-NACHINGWEA-RWANGWA-LIWALE, J- MASSASI-I (within 25km from radius of MASSASI), K- MASSASI-II (area around CHINGGUTWA) and L-SONGEA  
 2nd Quality-AFGHI- A-MTWARA, F-LINDI-S(Inland), G-NEWALA.1, H-NEWALA.2,I-NEWALA.3

It is interesting to note that newala which was the second quality earlier, today considered as the best quality.  
 3rd Quality--- B-KILWA, E-LINDI-I (Coastal)  
 TANGA, DSM is considered as under grade

**Mr Krishnan: Do you see a change in the quality of RCN over years in Nigeria, Gambia, Ivory Coast and Guinea Bissau, as I have seen change in newala from second rated quality to first quality at this point of time?**

**Mr Amrith Kurien:** In Guinea Bissau the trees are much older, productivity much lower; nut counts are higher now to 225-230 as against 210 earlier. In Gambia and Senegal, there is lot of mixing of origins, generally nut counts are in the region of 200 and 220, but these origins have huge variations in nut counts ranges from 180 and 240, due to high mixture of nuts from other origins.

**Mr Sunil Dahiya:** In Mozambique, TechnoServe has done a good job in the past in terms of creating awareness about the quality of raw cashew nuts. Buyers are nowadays taking in terms of quality and price. There is a visible change in terms of quality of nuts, which is an ongoing process with new grafts, hybrids etc.,

**Mr Krishnan:** Cashews have to go from East, West Africa, to India, Indonesia, Brazil, or Vietnam. There is lot of latitudes it has to travel. It goes from one climatic region to another. It sweats, wets, and condenses, cools, hot from sub-tropical to Mediterranean temperature and back to another hot region. One of the biggest problems we see is that the containers are stuffed; it is there in the yard, and even after 30-40 days it is put in to the ship and then it takes voyage, despite most of the shipments are C&F, and we find that not enough efforts on the part of the supplier to ensure shorter transit from origins to countries like Vietnam and India. **Can anyone tell us why the trust was not there even after so many years?**

**Mr Tola Faseru:** Nigeria has taken a lot of initiatives in this case; have spoken to various shipping lines and taking necessary initiatives to reduce the transit time. Last year the shipment transit time from Nigeria to Vietnam was carried out in 30 days. Definitely we will work towards reducing transit time so that there won't be any problem with respect to quality of RCN.

**Mr Krishnan:** Food safety initiative from India are not just asking us about chemical contaminants, but also crop contaminant such as Alatoxin and naturally occurring toxins such as hydrocyanic acid, hypericine and saffrole and we urge the suppliers to address those issues along with traceability issues as we need each other while doing business.

**Mr Giridhar Prabhu:** **If we are going by kernel quality, the laboratory reference, which is the kernel standard, it will be elaborate four day process cumulating or stimulating the actual process, you can't get the kernel quality without at least five days of activities. Starting**

**with the protocol with CEPCI and other associations, how can this test be made effective and the results will be presented as early as possible in the five or six months? What will exactly determine the value once the laboratory test reveals five kg of kernel value related to yield?**

**KGN:** That has to be determined by lot of statistical tests over the time and can be correlated with certain co-efficient of final value in relation to yield.

**Anga:** **Mr Meite Inza while presenting about the cashew sector reforms in Ivory Coast and you have mentioned about minimum guaranteed price. What kind of guarantee are you assuring? Is it consistently with something your farmers abide by and at what price?**

**Mr Suraj Rao:** The government of IVC does an analysis of the entire value chain at the beginning of the season where it incorporates selling price of kernels and raw nuts at the destination and includes costing for the various components of the value chain and arrives at a minimum farm gate price. This year the price that has been announced at farm gate level is 350 CFA per kg.

Now this price is the minimum guaranteed price for the farmers. At farm gate level there is a very stringent and transparent documentation process that is monitored at every point of purchase where the government has deputed agents who will go and monitor the price paid to the farmers. So irrespective of the quality of the produce, irrespective of the timing in which the crop is coming, the farmer is guaranteed 350 CFA per kg.

The general philosophy of the government is to ensure a ball park report, beginning with 60-70 percent of CFA price should go to the farmers. So with this thought process, the government will discuss with all stake holders, invite their costing and then debate it, and the minimum guarantee price is arrived at.



**Mr Krishnan Nair** of KGN concluded the session of Raw cashew el dorado with

- The Outturn of Guinea Bissau
- The Count of Brazil
- The Colour of Benin
- The Smoothness of Maharashtra
- The Uniformity of Indonesia
- The Driage of Tanzania
- The Taste of Goa
- The availability of Ivory Coast and all at the price of peanuts.



## Panel - 3: Recent Developments in Shelling Technologies



**Moderator: Mr Hari Nair**, Western India Cashew Company Pvt Ltd.,

**Panellists: Mr A Barathy**, GI Technologies, **Ms Menik Buddhini**, Buddhi Industries, **Mr Stefano Massari**, Oltremare, **Mr Dang Van Tuyen**, Mekong

**Mr Hari Nair:** Cashew processing involves lot of processes. In this discussion, we will discuss only about shelling, as most improvements have taken place in this section in recent years. Cashew is a crooked nut, and it is much more difficult to handle compared to more straight nuts such as almonds, hazelnuts or any other nuts.

### **Buddhi Industries: M175 Automated Cashew Cutting Line**

Salient features: Shelling speed 50 kg/hour, Efficient feeding systems, Less electricity consumption and Easy to adapt conveyors for feeding and removing, food grade material, less double nuts picking and less miss picking,

less back cut problem, new technology for cutting system, less uncut, more capacity hopper and its user friendly and easy maintenance.

**Mr Hari Nair:** As we know Buddhi Industries, which brought out new technology in cutting cashews, involves forcing cashews in between two plates and then shells out while the nuts are moving. This technology is very different not only new in cashews but in other nuts, a truly innovative development happened eight years ago.

**Ms Menik Buddhini:** After several years of R & D efforts, we have come out with M175 machines. This machine can be coupled with feeding, separation and grading. This machine can give best of quality output.

### **GI Technologies Six Strokes Mechanized Shelling Machine**

This machine has increased shelling capacity of 80-90

kg per hour as against the earlier capacity of 50 kg per hour. Reduced labour costs, improved uncut, cross cuts in the shelling line, 500 nut counts, output is steady with improvement in quality.

**Mekong Technology: Mekong-2016-10 H Cashew Shelling Machine**

Salient features: Capacity-120 kg hour; Cutting Head: 6 head (blade); rate of broken's <5%

Mekong-2016-10H1-Capacity-200-250 kg/hour; Cutting Head: 10 head (blade); rate of broken's <5%

Mekong-2016-10H2- Capacity-500 kg per hour

Mekong-2016-10H3- Capacity-600 kg per hour

Mekong-2016-10H4- Capacity-800 kg per hour

All the machines having high efficiency, produces best quality, lowest cost and with less usage of labour.

**Oltremare**

Oltremare automatic shelling machine has a unique approach by the way of calibration. Calibration leads to automatic shelling & separation and then kernel cleaning. By the way of Calibration one will get more whole kernels, clean uncontaminated kernels and requires less manual labour. We have multi size origin cutting machine and integrated kernel/shell separation (Broken, Wholes and Rotten).

**Mr Hair Nair: The biggest problem when we try to mechanise shelling is that the opened nuts will be packed after long time; this has actually caused kernels to be contaminated. In hand shelling, once the cutting is done, soon we will take out the kernels. Is there any way to clean the equipments filled with dirt and contamination of shelling? I have seen factories filled with such things just after four days of shelling.**

**Mr Dang Van Tuyen:** At the time of separation of kernels, all contaminated things will come out.

**Ms Menik Buddhini:** The system is very simple and cleaning is also easy. For removing contamination of kernels during shelling, we have a separator system.

**Mr Bharathy:** We have four cutters in the machine and each cutter should be removed to clean the machine, which is easy to do.

**Mr Stefano Massari:** The important thing is that rather than cleaning of the machines, one should clean the kernels properly. Kernels can get contaminated because when they are in touch for a long time, by particles which are shells or fragment of shells, or they get contaminated if they touch or scroll on a surface which is dirt or by dust etc. So from the engineering point of view our machine was designed so that all the surfaces and materials, which are refractory to the sticking of those kind of particles. All the materials are in stainless steel, which makes it difficult for oil or dust or any other particles to stick on it and the maintenance of machines is extremely important on a regular basis so as to avoid contamination of kernels.

**Mr Hari Nair: In a lot of equipments we have seen self-cleaning systems. For eg we have a sorter, where glasses cleaned automatically. Have any of you thought about it and is it possible to do self-cleaning and continue to process without stoppage? May be this is something few of you can think about and come out with a solution in the coming years.**

**Mr Stefano Massari:** The self-cleaning of cutting machine is possible. But the problem is that we need to stop the machine and the self-grading device will enter in to operation and will clean the machine, and then the machine will start operations, based on the capacity of the machine. The other aspect is that we need to use extra-controller to clean the blades. These are the problems which are not easy to solve. In our case we may have the contamination on the cutting itself, we may have contamination in the following operations before separation, where the kernel is scrolled on the surface or when they are in contact with dust or dirt on the surface etc.,

**Mr Hari Nair:** Menik said that, we have improved the machines to reduce cross cut, back cut and so on. Could you please explain on the same?

**Ms. Menik Buddhini:** We have totally different mechanism in our flyer machines. In our earlier machine sometimes two nuts will go out at a time, but with this new one only one nut will be taken out for cutting and other nut will be rejected. We focused on reducing the back cuts, which is a major change. In earlier machines the back cut percentage was about 25 percent. In the new one even the sun dried cashews, the back cut percentage was reduced to less than 10 percent.

**Mr Bharathy:** Floor monitoring of blades is more important and according to shell thickness/origin it has to be adjusted periodically, monitoring shelling output is also required and the problem will be rectified.

**Mr Hari Nari:** Today after mechanization started, what we have seen is that every origin has lots of small nuts, people are not able use the machines for small nuts. These nuts are rolled back to markets and are getting value to that. How to tackle this and to de-size the small nuts?

**Mr Dang Van Tuyen:** For cutting small size nuts you only need to adjust the blades according to the thickness of size.

**Mr Stefano Massari:** For smaller nuts our machines can handle that with minor adjustments in the blades. The calibration in my opinion is the key so as to minimize the uncut, back cut and micro cut. The blade adjustment is fine but the adjustment is based on the size of the nuts.

**Ms Menik Buddhini:** The origins can be customized and even for smaller nuts, we can supply machines.

**Mr Sunil Dahiya, ACA:** When you are supplying machines to different countries, how typically you are handling after sales service. On the contribution side, to invest more on simplified manuals with more explanations not only limited to installations, but also on how to operate along with safety measure mechanisms. Also when you are supplying machines, it is also important to share the information

before selling, with pre-condition of raw cashew nuts of that origin, about steaming process, CNSL treatment, even with steaming what are the temperature for cooling times etc.,

**Mr Bharathy:** My suggestion is that the buyers should have one technician in case problems occur after sale of the machine. Every time it is not possible to go and solve the problem from our side. In our machine only steam roasting is possible and drum roasting method is not possible.

**Mr Stefano Massari:** In my opinion the best treatment of nuts for the shelling and shelling in kernels, there is a complete cost, including the separation part; your roasting comes with more bigger kernels with removal of shells, so the separation operation is more easier than steam roasting process and its coming cleaner, because much of the oil is taken out. Personally I feel oil roasting is better for mechanised shelling process on certain terms.

**Mr Anga:** In the face of growing food safety concerns, what are you going to do to avoid food contamination? Most of the equipments produce too much noise, which is deafening. What are the steps taken to control noise pollution, which are eco-friendly?

**Mr Hair Nair:** Most of them already discussed about the ways to reduce contamination of food.

**Mr Bharathy:** It is not possible to avoid the noise of machineries as cashew nut is very hard nut.

**Mr Stefano Massari:** As far as noise is concerned, we have faced these problems. The amount of nuts, going at the rate of more than 10000 counts of nuts per hour and heating the metal sheet, the surface of the machine, aspirators creates that noise. The solution was to quell the noise where the machine was working and we succeeded in bringing down the level of noise in a very big way. The systems are there and this involves investments. There is a need for additional features to put either inside the noisiest areas or the outside.

For the welfare of the worker, I understand the problem is there, will see to how we can reduce the noise pollution and for the time being will provide ear protection for them.

**Mr Giridhar Prabhu:** This question is about the strokes per minute or hourly rate. Here that it also addressing that of producers. For cashew the best yield is about 52-54 lbs comes from the smaller size, which is 200-220 nut counts, which means for the farmers the per hectare production of smaller size is 30-50 percent higher, which means it will get more income and productivity for the farmers. When we at processing are being asked for 170-185 nut count of higher size, but the ever increasing global demand is only for W320s. If you want next 200,000 or 500,000 tonnes of seed then it would of a 320 size, which would be demand driven. Can you increase the strokes for the period on the regular? When we have 200 to 220 size, we have the below 20s about 9-12 percent, but I recently discovered it is possibly that, because the productivity of the machine comes down by half. Can you provide for the below 20s alone or something like that highest stroke/fastest stroke that will extend in to same measurements and same productivity?

**Mr Bharathy:** In our machine we need 46 cutting stroke per minute, and if you increase the speed, the position of nut will change, which is going to have a problem. By increasing the speed uncut, back cut and cross cut will be more.

**Mr Hari Nair:** The problem with shelling is that each nut has to be handled differently. If the count is 200, then  $200/46$  is the amount of nuts that can be cut per minute and for a count of 300 then it is  $300/46$  and so on. It is easier to handle large nuts than handling small nuts. Large nuts can be made faster; however, for smaller nuts it will be more difficult to increase the speed.

**Mr Stefano Massari:** You said that the probability of machine goes down if I put a -20 Deg in to a machine. But if the same has to be done by hand, it would go down dramatically. The other aspect is that it's only a matter

of choice of economics. If you have -18 or -16 deg, which gives me about 450-500 nut count of kernel, if economics permits, by increasing the speed, yes you can, for the price level, technology and depends on the situation at that point of time. It is possible in the near future, but not possible at present.



■■■

## Innovation Forum



**Moderator: Mr Giridhar Prabhu**, Managing Director, Achal Industries

**Panellists: Ms Suhashini Singh**, Head-Agriculture Debt Investments-Asia Pacific, responsibility, **Ms Rita Weidinger**, Executive Director, African Cashew Initiative (ACI)/GIZ, **Mr Vasilis Sotiroudas**, GM, EcO2-Greece and AgroSpeCom

**Mr Giridhar Prabhu, Achal Industries – Cashew and Innovation**

Cashew has three distinct forms of roasting since 1927, starting with pine roasting until 1936, then comes drum roaster, which is still prevalent in parts of Maharashtra and Palasa due to fantastic taste, due to evolution of cashew nut shell liquid as a substitute for steel drums known as Detroit, resulted in huge shortage of resins, therefore 3M corporation developed cashew resins and what is now called as the friction dusts used in brake lining and clutch of cars.



Every car in the world has CNSL in its brakes and clutches. The simple aspect was that the temperature required is 700 DC at the point of braking. CNSL is the only component which could make it happen at that temperature. After the evolution of requirement of CNSL, we saw the advocacy of oil bath roasting as the better form of roasting, but in manual the requirements of cashew sector liquid industry we stuck to the modified form of roasting, and the by-products forms very important role in economic growth.

**The evolution of steam roasting method came in to practice in the month of December-1981, which brought industrial revolution in the Mangalore region and the Vanguard of India today is the steam roaster.**

It is important to get the true meaning of the word entrepreneur. An entrepreneur is a person who shifts resources from a lower yield to a higher (J B Say). The potential for entrepreneurial activity in cashew is so huge that one can do it by leaps and bounds. It can be in the smallest area at the least cost or can be organised by entrepreneurs, that is, entrepreneurial activity within large organisations.

The major innovation that we undertook with CEPCI in 1990s and we have received three requests almost simultaneously, from UK, Japan and US. Can the industry do something to stop supplying cashews in tins and evolve a substitute, preferably plastics? The "vita pack" machine was invented. It was had a bell jar which fit over the cashew tin filled up. A piping system was introduced which generated vacuum inside the jar as well as the tin. Once vacuum optimum was reached, Carbon Dioxide was released simultaneously. Once this inert gas filled up inside the tin, it was hermetically sealed. This major innovation has sustained the world trade and the move from tins to plastic was also initiated in India and completed and delivered to world standards. Grading in cashew also has been scientific and is an innovation. This was evolved by industry, but established as a standard in 1966 and then adopted by the world. Innovation is neither a magic nor invention. It is smart every day work which involves study and implementation. Again, the entrepreneurial work is not necessarily an industrial activity. A new factory or a new trader or a new plantation is not entrepreneurial. It requires that the entrepreneur shifts the yield of a resource from a lower to higher yield.

**Ms Suhashini Singh**, responsibility - Innovation in financing cashew value chain responsAbility was founded in 2003 and carried out investments in about 80+ countries.

Our financing is mostly in to the fields of Agriculture, Finance, Energy, Health and Education. Financing agricultural value chains

We have started fair agriculture fund in 2011, where we will provide financing to agricultural value chains, which includes production factors, producers, processing and logistics and distribution and retail.



The fund is close to USD 200 million, with majority of it, about 80 percent from debt and balance in cash with some portion in equities. The fund exposure is across the continent and the largest exposure is from Latin America, however Asia-pacific region is nowadays catching up fast. For Africa it is about 18.7 percent.

**We are financing 40+ commodities, with coffee 27.4 percent, followed by grains and seeds at 20.3 percent and nuts at 19.1 percent. Among nuts cashew exposure is roughly 5 to 10 percent of the fund size at this point of time.**

**Funding requirements**

Value Chain Actor	Financing Requirements	Available Security
Processors at Origin	Pre-harvest financing	Inventory
	Inventory financing	Sales Invoices
	Post-shipment financing	
Importing Processors	Pre-export financing	Sales contracts with buyers
	Advance to suppliers	Sales invoice
	Inventory financing	
	Processing	
Traders	Post shipment financing	
	Advance to suppliers	Receivables & Advances (Current Assets)
	Post shipment financing	Sales Contracts

responsAbility cashew exposure is in seven countries with 12 counterparties, which includes in East and West Africa, India, Vietnam and looking at Vietnam. We are financing traders from Singapore, Hong Kong and Netherlands. Targeted average exposure in 2016 is likely to be around USD 35 million.

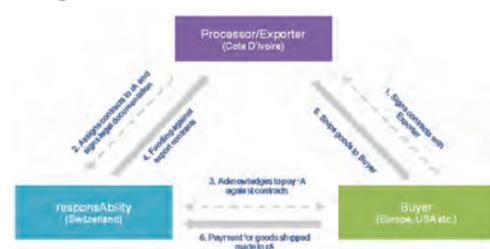
**Types of financing**



**Collateral management agreement- Processor focused**



**Assignment of contracts-Processor focused**



**Floating charge + guarantee-Trader Focused**



**Ms Rita Weidinger, Executive Director, African Cashew Initiative/ GIZ - Innovative delivery methods to addressing the challenges in the cashew sector**



In Africa initially cashew was grown as a soil conservation crop. But in recent years Africa’s share of raw cashew nut is increasing year on year; however, the productivity is very low about 350 per kg, poor quality, high processing costs and hardly organised.

Lot of public and private partners came together in ACI to address challenges in the cashew sector, which include active participation of various government actors from various countries. We have seen drastic change in countries those who consume, by coming out with their needs/demand, producing countries look at how to improve productivity and to process cashews in their own turf.

By joining hands with others, we want the basic development objectives in the producing countries are to have fixed income for the farmers, to generate employment, value addition and nutrition.

The industry objective is how competitive, efficient, quality, traceability and sustainable supply.

**What does the African Cashew initiative do?**  
**By linking various actors in the cashew supply chain, ACi's goal to improve the productivity, to reduce transaction costs, to improve quality, increase income, increase capital efficiency and to enable sustainable sourcing of raw nuts.**

We would like to connect with enabling institutions with access to finance, policy initiatives and advisors and also to create link with brokers, processors, producers, roasters, traders and producers in the private sector. Only if we link the above two then only can we achieve the desired goals.

**ACi will increase the knowledge and confidence of various actors in the cashew sector by the way of conducting master training classes.**

Vasilis Sotiroudas, GM, EcO2-Greece and AgroSpeCom - Environmentally friendly ways of safe keeping the cashew kernel in transit and in warehouses





**Methods for fighting insects**

Three different methods are applied for fighting insects in production factories and in warehouses. 1) Heat Treatment, 2) CA- Controlled Atmosphere and 3) Precision PH3.

Heat is to be applied in factual lines/areas and not on the products in factories. The other two methods are applied on the top of the warehouse.

If you apply heat at 60 DC for 16 hours then it will lead to enzyme destruction, change in salt balance, protein coagulation and cell membranes “melt”. The 60 DC can be applied by using gas and electrical heaters or the combination of two. These tanks are specially designed so as to make sure that everybody is safe, no fire and no health complaints.

Gas heater is set up through LPG tank and from there connected by a pipe line and make heat treatment in less than 24 hours.

The most advanced system for heat treatment by wireless temperature monitoring available on smart phone, so as to have safe and accurate control of treatment process.

A very important point when we talk about heat treatment of lines or rooms is that we don’t need to seal or close everything tidy.

Controlled Atmosphere in airtight chambers  
 Apply temperature at airtight chambers around 43

DC and 1% oxygen for 2 days. One day for change in parameters and one day for treatment of the cashews.

**Precision Phosphine**

If the treatment that we started is not going well, we will get an alarm in our smartphone.

Control union is present throughout the world with more than 200 CA terminals, with seven dedicated cashew terminals viz., Vietnam (7), India (1) and Ivory Coast (1).

Mr Giridhar Prabhu: If you can master the techniques ummarized by Mr Vasilis then we will have zero infestation problems in cashews.

**Opinion Poll among delegates**

**There is a need for global innovation body for cashew**

a)agree b)disagree

Ans: 94% agree and 6% disagree

**Is there a need for an agency for conflict resolution?**

a) Yes b) No and c) No comments

Ans: Yes-69%, No-15% and 16% no comments



## Investor Forum



**Moderator: Mr Shakhthipal**, Global Cashew Sector Lead, Technoserve

**Panellists: Mr Sanogo Malamine**, Director General, Cashew and Cotton Council, Ivory Coast

**Mr Olusegun Awolowo**, CEO, NEPC, **Dr Babafemi Oyewole**, MD, African Cashew Alliance

**Mr Sadanandan G Nair**, Business Head-Cashew, Vink Corporation

**Mr Shakthipal:** This forum is about the potential of Africa, which is growing fast. These emerging economies are offering tremendous potential and ways to invest your money and all the governments are so passionate and open, which will be really helpful in your start ups.



**Mr Sanogo Malamine, CCA - Cashew Sector in Ivory Coast:** Our presentation will be centered on cashew sector in Ivory Coast and the innovations occurred in the last three years. **The production of Ivory Coast is about 700,000 MT, at least the quarter of world production.** This is due to the fact that cashew sector is going through a reform for few years from now and this reform is articulated around four strategic axes. It consists of agricultural production and research, domestic and foreign marketing, local processing and the sector's organization and capacities reinforcement.



***First subject will be about production and research***

Regarding production, cashew nut has been introduced in Ivory Coast, not to be a sector but to fight deforestation. Therefore, we ended up with lot of plantations not respecting good agricultural practices dispositions. So, we have launched a research program using what has been done in other countries and trying to figure out what kind of researches need to be done in Ivory Coast.

**Regarding Quality control, we have set up a system to improve production capacity, at the yield or the quality maintaining levels.** These are the efforts made in terms of production and research.

**Regarding marketing, we have set up a marketing traceability system based on two points, the first one is the identification of all the stakeholders involved in the marketing business and the second is the setup of traceability documents.**

We also want to put a quality control system in place which will consist of agreeing or rejecting products intending to be exported according to their quality. This was the summary of all the arrangements taken about marketing.

In terms of local processing, we took some dispositions with the support of our technical partners, such as the ACA, the African Cashew Initiative and Technoserve. Those partners are supporting the sector in Ivory Coast by setting up an assistance program to the installed units.

**We are working on promoting processing equipments and technologies on one hand and on the other we are trying to popularize local consumption of cashew by-products.**

Regarding the sector's organization and the capacities' reinforcement, we are working on organizing the producers in the villages around joint projects, such as management of jute bags, production estimates, capacities development support related to sales and their activities management.

I would like to remind you that Cotton and Cashew Council is a public-private partnership structure which not only plays the role of regulation, but also has the mission to develop the sector.

This is the reason why we are working on the integration of all the sector's activities by setting up an ERP system with the object of having a very good visibility to make decisions at the right time. In fact, it is a management and anticipation tool for the various problems of the sector.

In the last three years, implementing those provisions allowed us to achieve the following results: distribution of selected plants, orchard's sanitary map elaboration, and computerized management of the flows, production increase and the quality improvement.

**The key point is that, cashew sector in Ivory Coast has been subject to various reforms and in the next coming years, our efforts not only concentrates on strengthening the structural reforms which are going on, but also with the main purpose of assuming its role at global level, namely placing very good quality nuts on the market for the sector's durability in Ivory Coast and also ensure the processing at local level. These are the goals we think we can ensure with regard to the producers and to the sector.**

**Mr Shakthipal:** Availability of large quantity as well as quality of raw nuts, favourable policy environment, which is functional and effective and **the only country in the world, which provide 100 percent traceability of the nuts from the farmers side, that makes Ivory Coast as a favourable investment destination.** Hence I appeal to all investors to utilize this opportunity and to invest in Ivory Coast.

**Mr Olusegun Awolowo, NEPC - Investment opportunities in Cashew Sector in Nigeria**

NEPC was established in 1976, the only government agency to promote the growth of non-oil exports

to diversify the nation's economy, which was overly dependent on crude oil. Here I would like put forth the investment opportunity in the cashew sector in Nigeria.



**Nigeria is among top 10 raw cashew nut producing countries in the world and fourth largest producer in the African continent.**

17 out of 36 states in Nigeria grow cashew on a commercial scale almost cashew is almost grown in all states.

In 2015 Nigeria produced 160,000 MT of RCN and it is expected to produce 175,000 MT in 2016. We are working with USAID and ACA in scaling up the production and to add value addition of the product.

**Cashew is one of Nigeria's strategic main agricultural products and in 2015 it has exported 150,000 MT of RCN and earned \$253 million.**

In Nigeria cashew is cultivated in 325,000 hectares with average yield of 0.4 MT per hectare and local processing capacity of 25-30,000 MT.

Cashew industry has several linkage points to grow exports and benefit large number of people. Nigeria is currently getting USD 80 million by the way of cashew exports and it has the potential to increase the additional revenues to the tune of USD 25 million by the way of kernel market linkages and on improvement in food safety and quality aspects.

Also by providing training and planting of more saplings, it will create additional 100,000 jobs, increase in income and food security of over one million rural Nigerians. NEPC will work with NCAN and ACA so as to increase the cashew industry's contribution to Nigeria's non-oil exports. We will provide market information and incentives for raw nuts processed in Nigeria, to enhance quality and technical capacity building.

Investment opportunity exists in cashew planting, processing, skill and capacity development, packaging, setting up of plant and machinery and transfer of technology.

Nigeria's largely untapped production capacity for cashew offers potential consistent high returns. Nigeria is focusing on economic diversification which agriculture as major sector and Government policies and incentives will support investment in agriculture across value chains. We are ready to explore global opportunities for export business. We are looking forward for investments in cashew sector in Nigeria.

**Mr Babafemi Oyewole, ACA - Invest in African Cashew Sector-ACA's Investment Promotion Initiative**



ACA is representing all aspects of the cashew value chain including producers, processors, traders, and international buyers.

ACA's key engagements include participating in

various global industry conferences, providing technical assistance so as to increase efficiency and competitiveness of the African cashew industry. Introduced ACA Seal program for food safety and quality of the produce for sustainable cashew industry, and gathered reliable global market information and trends.

ACA is regularly participating in the industrial conferences such as PTNPA, INC World Forum, WCC, SIAL and Food Fancy Show for the betterment of African cashew industry. Also this will act as learning and networking platform and also provide opportunity for new investment promotions.

ACA is participating in GCR-VINACAS since 2011 as African counterpart with bi-lateral co-operation and understanding. ACA World Cashew Festival and Expo, which was started in 2006 with 50 participants, has grown over the years and number of participants increased to 522 in 2012. However in the last two to three years, the number of participants declined due to Ebola issue. This year it is going to be held in Guinea Bissau during September 19-22, 2016 and 400+ participants are expected to attend the event. This event highlights the transformation of African cashew industry in the last one decade.

ACA has partnered with various government and NGOs of African countries, CEPICI of India, VINACAS, GCC etc., for the betterment of cashew industry. ACA is also getting institutional support from USAID and GIZ via ACi since 2006; USDA via IRD since 2010; UNIDO since 2012, AFDB since 2015 and World Bank/IFC since 2016.

**Cashew Investment Results – Africa**

- More than 60+ cashew processors are operating across African countries.
- 137,000 MT of RCN processed locally at 356% growth rate
- Installed capacity of ACA members reached 260,000 MT at 50% capacity utilization rate
- ACA members invested US\$ 70 million in New Investments and Biz Expansions
- African processing adding household income by US\$ 53 million
- ACA member firms exported value-added kernel worth of US\$ 99 million

- 250+ Containers exported to USA/European markets of ACA's Quality & Food Safety Seal approved cashews .

**Mr Sadanand Nair, Vink Corporation:** We started trading cashews in 2000 and our motto is to keep adding value to the product. Our investments in cashew started with the Republic of Benin and our experience in the first few months is quite positive. People have lot of misconceptions about investing in Africa and how their investment will fetch results, but I would like to tell you that in whatever we have invested in Nigeria, Benin etc., we have never pull-back our investment from African countries and it has been a wonderful experience. Our plant in Benin will stabilize in about a year or so and then we would like to invest in Nigeria and Ivory Coast in the next few years. Africa would soon become the bread basket of the world and would urge all investors from India to invest in West Africa or Africa as a whole. As discussed in the forum, India is facing lot of quality problems, excess moisture etc., Suppose, if you are at the sourcing point, you won't face any of these problems and you will get the produce at a much better price than what is landed at various Indian ports.



**Question by Mr Anga, Nigeria: If Cashew processors in India and Vietnam refuse to invest in Africa, I would like to know whether they will examine semi-processed cashew kernel under exports from Africa, and I feel that should be the new approach in dealing with cashew business and also it will solve the quality related issues.**

**In the next two to five years Nigeria is going to bypass Ivory Coast as largest raw cashew nut producer.**

**We are proud of Mr Babafemi, the first Nigerian to become the Managing Director of ACA.**

**With 60+ cashew processing factories across Africa, one of the biggest problems we face is that cost of production/processing is higher compared to Vietnam and India. How are you going to address this high cost of processing?**

**Ivory Coast has mentioned that you supply Jute bags to cashew producers. I would like to know whether you will distribute it free of cost or subsidize to farmers as one Jute bag costs USD1.5, which is expensive.**

**Mr Babafemi:** In Africa cost of production is high due to higher cost of electricity, water and transport due to lack of infrastructure facilities. Also cost of finance is very higher for processors. So the respective governments should evolve a policy and to support processors by the way of incentives so as to stay competitive globally in terms of costs to promote cashew sector in Africa.

**Mr Sanogo Malamine:** Jute bags are very important to protect the raw cashew nut quality. Ivory Coast government gave 4 million jute bags to farmers to minimise value loss and expect farmers to use the bags at least twice. A portion of export taxes were used to subsidise this initiative.

**Mr Roger Brou: MD --IVC trading company:** The lessons learned by CCA and the measures from last year price fluctuations in RCN across the markets, as we are concerned about external intervention in the price situations.

In the cocoa sector, price stabilization which was put in place in 1970s and 1980s, which has shown significant growth in that sector. Can we put the same experiment in cashew sector, which is growing big? Is it something CCA is considering at some point of time?

We were very impressed by the growth potential of Nigeria. Can we have more information about what NEPC is doing about RCN peelability issue in Nigeria, which is increasingly worrying people who wants to source it from Nigeria?

If anybody wants to invest in Nigeria there was an incentive package, which was now suspended. Where we stand on that?

I would like to know from Mr Nair about his experience in investing in Africa, especially the cost of doing business, as we are putting a large 30,000 tonnes of processing factory by the end of this year in Ivory Coast.

Mr Sanogo Malamine: Your first question concerns the fluctuation in the last campaign prices. I would like to remind everyone that in Ivory Coast, the prices fluctuation system is based on a mechanism.

An agreement has been made with cashew sector's players to set a minimum price for the producers on the basis of prices quotations from Ivory Coast origin and various charges.

So, normally nobody is authorized to sell below this minimum price, but in case the market reverses, we set another minimum price, lower than the previous in order to take account of the market turndown, this is the principle.

The farm-gate price depends on two elements, the first one is the ratio of supply and demand and the second is the competition in the market.

Now, it is much more a discipline matter among the exporters; if they push the price up, we will not tell them to reduce it, so I really think of it as a discipline matter. The solution is the exporters' awareness we are doing, recommending them not to push the prices up, that's all we can do, and we don't have any other choice. But as long as the market can cover the prices, there is no problem.

With regard to the second question about cocoa, I think this will occur according to the sector's maturity. This would mean that, there will be an exchange, then a system of reference, a cost of arbitration and also that we can make forward sells; which means that we sell two-thirds of the cocoa production, and on the basis of the prices, we will be able to determine the referential, and the third of the production will be guaranteed on a fund, it will be a guaranteed fund; however this is not possible for the time being in cashew sector, because

there is no exchange, no system of reference and no cost of arbitration.

**Mr Sadanandan G Nair:** The most important challenge is training of labour as far as cashew industry is concerned. When you make investment in such an industry don't look at short term profits but look at in longer term perspective. Investment should be made in labour; however the efficiency may be a bit lower than India or Vietnam, but it is catchable. Bodies like TechnoServe, ACA, ACi/GIZ, they are working tirelessly not only to bring the link between the farmers, improving the qualities, attending the labour and every field they were present; besides they are also working with private sector to bring the change in the above mentioned aspects.

**Question: I was just wondering you said started trading cashews in Nigeria in 2000 and you recently set up the factory in Benin. I hope you are a beneficiary of Nigeria EEG of 117 products.**

**Mr Sadanandan G Nair:** First of all I said we are in to cashew trading since 2000 and I didn't say that we are exporting cashew out of Nigeria. We have been exporting cashews starting with republic of Benin. There are two reasons why we decided to set up unit in Benin. Firstly, we have good infrastructure already in place in Benin in the form of oil unit where we have crushing of cottonseed and Soybean and other supporting factors such as land, etc., Secondly Benin cashews are considered as one of the best in the world and the kernel is excellent.

**Question: RCN producing countries in Africa should not create barriers for foreign buyers during the season**

1. Agree ---59%
- 2) Disagree---41%

**Question: Most important impediment to foreign investment in African cashew processing sector**

1. Safety of invested capital and repatriation---27%
2. Overall business viability-----24%
3. Availability and cost of skilled manpower----18%
4. Availability of support systems such as engineering support, spare parts etc.,----24%
5. Lack of management skills----7%

■■■



## Talk about Cashew Think about Vietnam

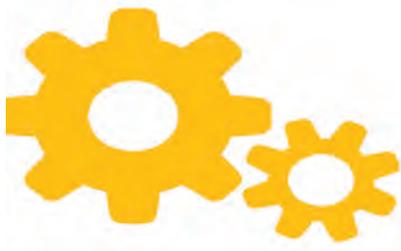
Mr Nguyen Duc Thanh, VINACAS

### Core Ideas

1. Cashew Farmers Accompanying Program
2. Value of Vietnamese Cashew Program
3. Cleaner Production – Boost Export Program
4. Solution to Solve Demand – Supply RCN in Vietnam

#### 1. Cashew Farmers Accompanying Program

- Self-production, Self-transferring Technology, Self-assessment (3T program)
- Cashew Intensive Farming & Rejuvenation Scheme
- Online library



#### 2. Value of

##### Vietnamese Cashew Program

- Encouraging consumption in domestic market
- Publishing nutritional value of cashew
- Concentrating on producing roasted products



#### 3. Cleaner Production – Boost Export



- Assure 100% hygiene
- Vary products
- Join deeper into cashew value chain

#### 4. Solution to Solve Demand – Supply RCN in Vietnam

- Sustainable development stage 2010-2020 & 2030 vision
- Keeping 300-350,000 ha
- Giving Cambodia – Laos 200,000 cashew trees

Thanks!

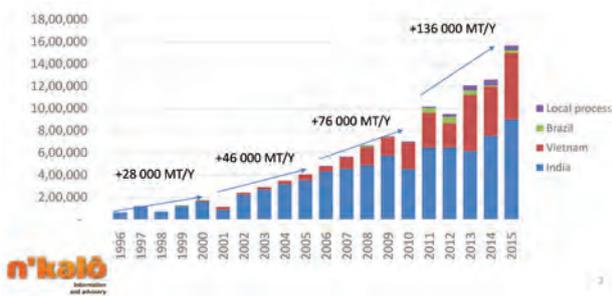
Any questions?



# Overview of the Cashew Sector in West Africa

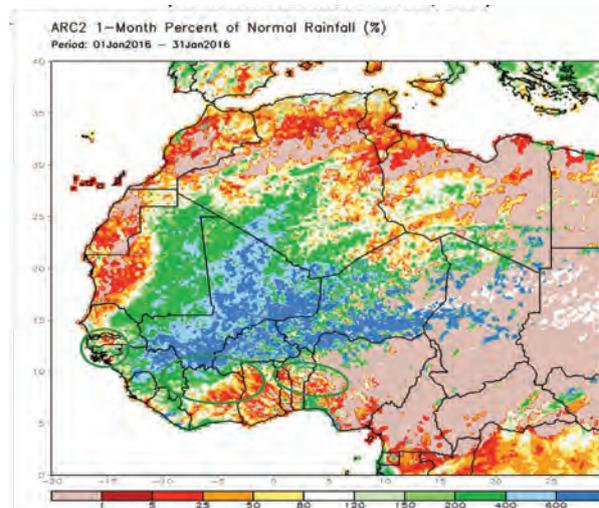
Mr Pierre RICAU, Agro Market Analyst, N'Kalô Service

## Evolution of West Africa exports over last 20 years



=> Good for flowering/fruiting

## Climate Prediction Center (National Weather Service, USA)



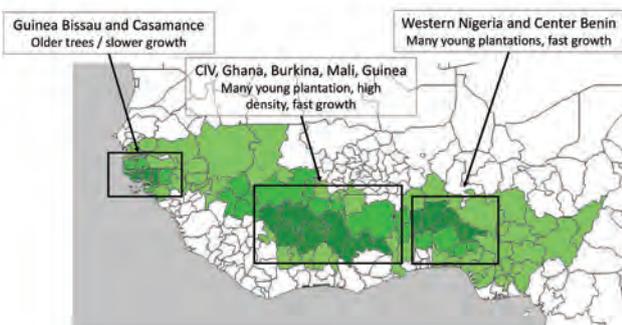
## Repartition of cashew production in West Africa in 2015



## Weather forecast during the cashew season

- No excessive rainfall or drought is expected in the cashew production area during the harvesting period.
- Apart for the late harvest, no adverse weather this year

## Main cashew production areas in West Africa

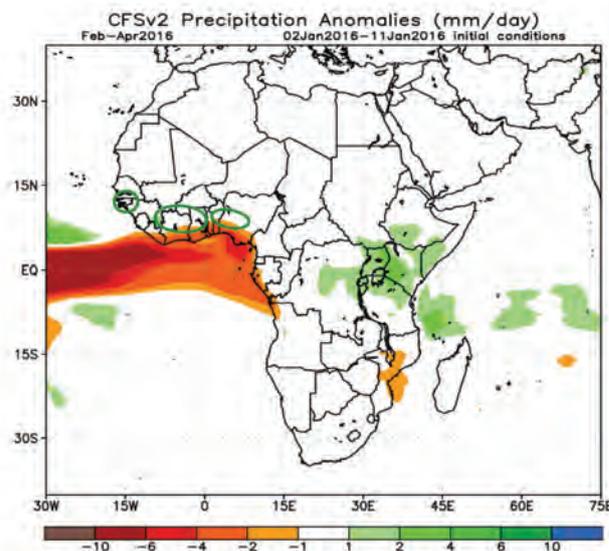


## Weather situation in West Africa

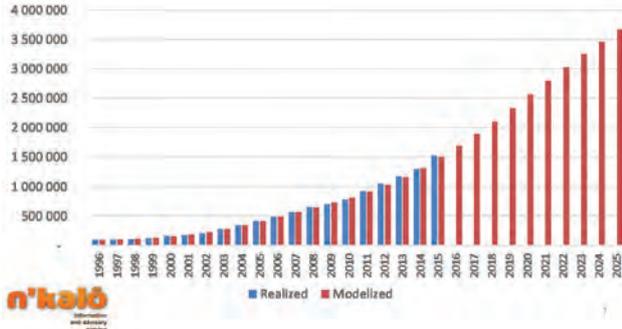
- Late beginning of the rainy season: June/July
- Normal to higher than average rainfall during the core of the rainy season: August/September
- Higher than average rainfall during the end of the rainy season: October/November

=> late start of flowering

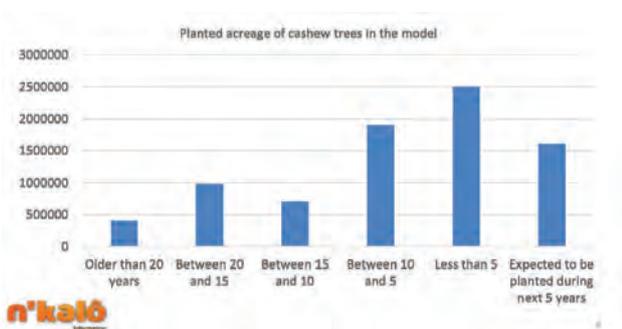
- Few rainfall during December/January



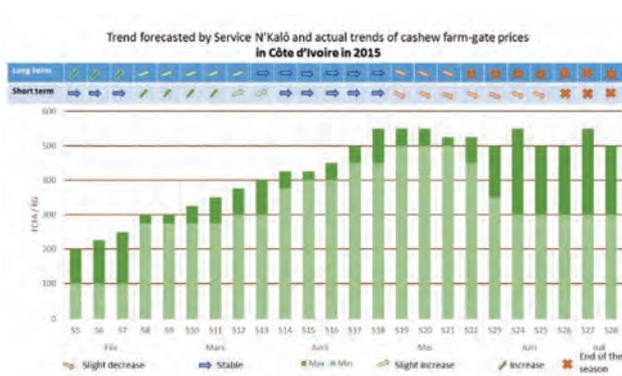
**N’Kalô service’s production forecast model**



**N’Kalô service’s production forecast model**



**N’Kalô Service market analysis**



**Market perspectives for 2016 season**

- Qty: production is expected to increase by at least + 200 000 MT in West Africa in 2016
- Timing: crop is late by 2 weeks to 1 month in many production areas. Main harvest is expected to begin at mid-March in Central West Africa.
- Strong competition for RCN at the beginning of the season but the second half of the season is very uncertain.

**N’Kalô perspective**

- Trying to fund our Production forecast project:
  - Better knowledge of cashew acreage in West Africa
  - Better knowledge of average yields/age in West Africa
  - Better understanding of weather impact on cashew yields
  - Network of monitored cashew farms to be able to predict yields before and during the season



**Mr Hari Krishnan R. Nair,  
 President, Western India Cashew  
 Co.**

Last year when you started this WCC, it was a big risk which you took. You have managed to create

a atmosphere which is neutral for all the stake holders ,who are trying to work for the betterment of the industry. I wish all success and prosperity for cashewinfo and all the best for your future ventures



**Mr Bharathy, partner GI  
 Technologies**

I must congratulate WCC team for organizing a successful event, which in turn is helping us in getting clients.



## Tanzania / Mozambique (2015 season)

Mr Vasudev Barkur, Executive Director

### TANZANIA

- Crop Production – 165,000 MT app.
- Export – 146,600 MT – app. Till date
- Quality of raw cashew nut is above average
- Port logistics problems were minimal as port berth was readily available for incoming vessels most of times.
- The crop was short by app. 30% compared to normal season.
- General

### MOZAMBIQUE

- Crop Production – 86,000 MT app.
- Export – 20,000 MT – app. till date
- Processing volume – May touch 40,000 MT
- The crop was high by app. 100% compared to normal season.
- General



# Indian Raw Cashew Nut Scenario

Mr K Pramod Kamath

### The Scenario Tour

- The Crop History
- Factors Affecting Crop
- The 2016 Crop
- The Future

### Raw Cashew Quantity

-A highly conservative industry estimate



State	Quantity in MT
Goa	20,000
Kerala	60,000



State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000

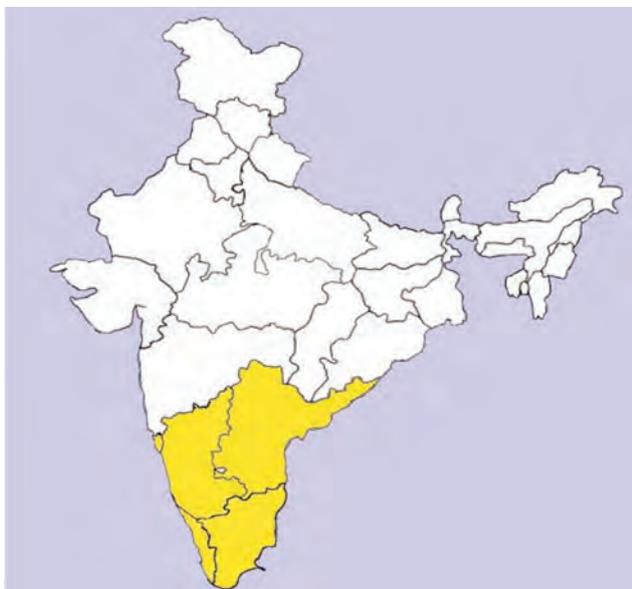
State	Quantity in MT
Goa	20,000



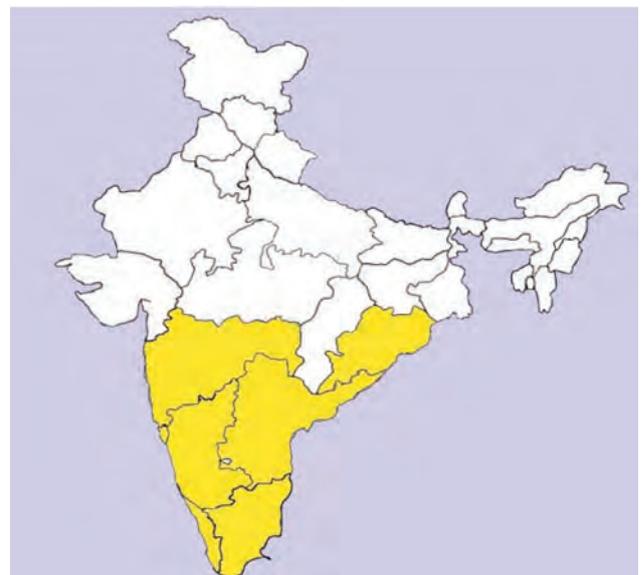
State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000
Tamil Nadu	70,000



State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000
Tamil Nadu	70,000
A.P/Telangana	80,000
Maharashtra	150,000



State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000
Tamil Nadu	70,000
A.P/Telangana	80,000

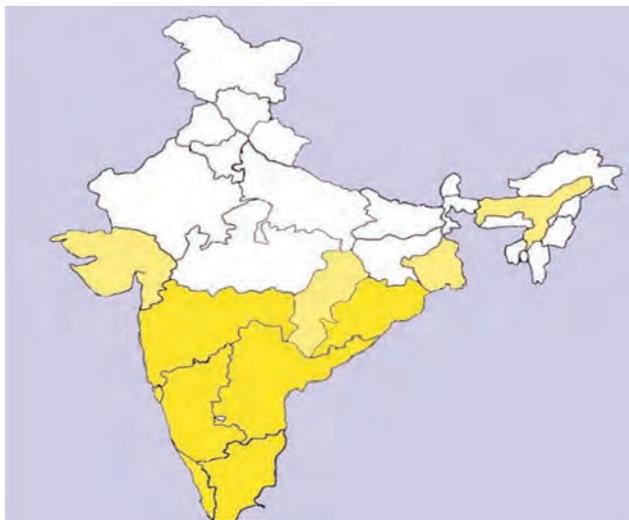


State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000

Tamil Nadu	70,000
A.P/Telangana	80,000
Maharastra	150,000
Orissa	90,000



State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000
Tamil Nadu	70,000
A.P/Telangana	80,000
Maharastra	150,000
Orissa	90,000
Gujarat	3,000



State	Quantity in MT
Goa	20,000
Kerala	60,000
Karnataka	70,000
Tamil Nadu	70,000
A.P/Telangana	80,000
Maharastra	150,000
Orissa	90,000
Gujarat	3,000
Others	15,000

#### Raw Cashew Growth Rate

State	Quantity in MT
Goa	5%
Kerala	0%
Karnataka	5%
Tamil Nadu	5%
A.P/Telangana	8%
Maharastra	10%
Orissa	10%
Others	Above 10%

#### Raw Cashew Price

Year	Rs/Kg	INR/USD	USD/MT	Year	Rs/Kg	INR/USD	USD/MT
1993	20.67	31.37	659	2005	41	44.03	927
1994	23.50	31.37	749	2006	33	45.18	729
1995	27.26	32.78	832	2007	33	40.92	800
1996	29.23	35.39	826	2008	36	44.44	815
1997	27.00	36.58	738	2009	47	48.16	982
1998	28.54	41.51	688	2010	60	45.68	1313
1999	35.11	43.12	814	2011	78	47.38	1636
2000	34.70	45.12	769	2012	73	53.66	1351
2001	29.10	47.26	616	2013	83	59.09	1396
2002	31.22	48.48	644	2014	88	60.92	1444
2003	31.95	46.29	690	2015	98	64.45	1521
2004	31.60	45.05	701	2016	105	67.84	1548

Price Growth 1993 to 2016 @ 6.3%

Price Growth 2008 to 2016 @ 9.98%

#### Factors Affecting Crop

- Rainfall during monsoon season
- Winter temperatures and dryness

- Post flowering rain showers
- Post flowering temperatures
- Pest
- Active Farming

#### Rainfall

- 2015 was a good year.
- November December saw some rain.

#### Winter

- Usual winter starts early Nov.
- 2015 winter set in late Nov

#### Flowering

- Flowering delayed by 3 to 4 weeks in South West crop
- Reports of Early flowering in Orissa and Maharashtra.
- Flowering is Good

#### Temperature

- Temperatures need to be Cool in night and moderate in the afternoon

#### Clouds and Humidity

- Clouds and humidity conditions responsible for flowerers surviving or drying up

#### Pest

- Tea Mosquitoes strongly affect Cashew Crop. Certain cloudy, humid conditions promote Tea Mosquito population leading to crop shortage.

#### Active Farming

- Pruning
- Fertilizing
- Irrigating
- Tending
- Pest Control
- Harvest and practices
- Overall Cost vs Yield
- Competing Crop Yield - Rubber Mango Tobacco Sugar Cane

#### 2016 Scenario

- Flowering is delayed in some varieties and areas
- Rest of the Weather conditions on track
- Farmer Interest is Up since Competing crops are down
- RCN arrival is STEADY
- RCN quality is good due to Delay!
- Slightly Delayed Normal Crop Predicted

#### India RCN Future

Cashew Manufacturers Associations of Karnataka, Goa, Maharashtra, AP, Odisha etc promoting cashew crop

- Distribution of saplings
- Sapling DEMAND is HIGH
- Sapling SHORTAGE
- CASHEW APPLE thrust
- KSCDC Auction UP 20%
- AP Forest Auction UP 100%

#### Conclusion

- Domestic Cashew consumption increasing Processing Capacity in India
- Demand will push crop growth
- Farmer interest is Rejuvenated
- Growth rate will be maintained

Vision - 2Million MT by 2030

If you think in terms of a year, PLANT A SEED

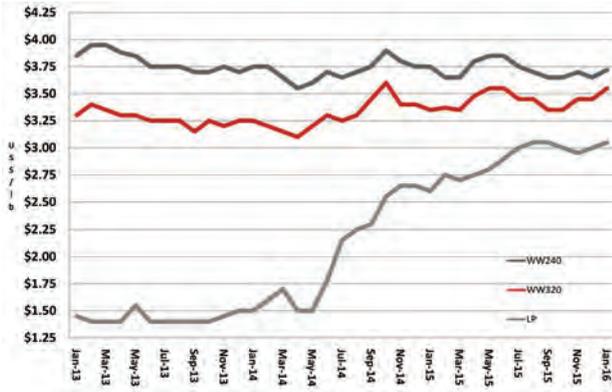
If you think in terms of 10 years, PLANT TREES

If in terms of 100 years, TEACH THE PEOPLE.



# Cashew Kernels Markets in 2016

Mr James Fitzpatrick



- **Middle East Market**  
 Mohamad Meeran Saheb , EMCO International Long established commodity trading house based here in Dubai sourcing wide range of products for over 30 years.

## Snapshot European Cashew Kernels Market

Jim Fitzpatrick

Ingredient Sourcing Solutions  
 Cashew Project Management Services

## European Cashew Kernels Market

- Market size and trend
- Major Importers
- Sources of product
- Impact of currency
- Major Trends in the market

- Presentations 40 minutes  
 Europe , US , India , Middle East
- Discussion 15 minutes
- Questions & Answers 15 minutes

## Speakers



### European Market

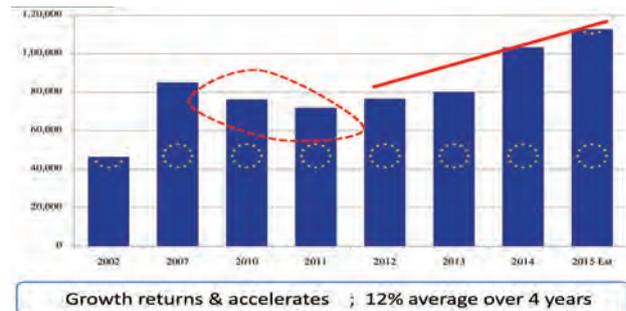
**Jim Fitzpatrick** – Importer , business development consultant and mentor.

### US Market



**Marc Rosenblatt** - Partner Richard Franco Agency. Family brokerage and agency business founded in 1947. Third generation trading cashews , tree nuts and more from many origins into the US market.

## Europe Cashew Kernels Imports



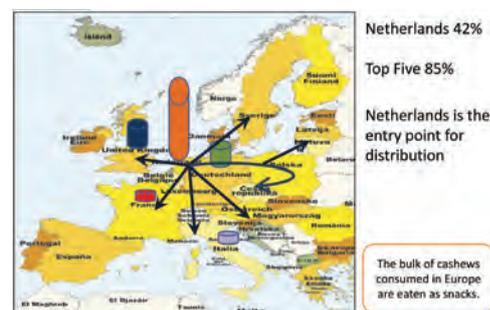
Source: Eurostat , ISS estimates for this chart

## Agenda & Speakers

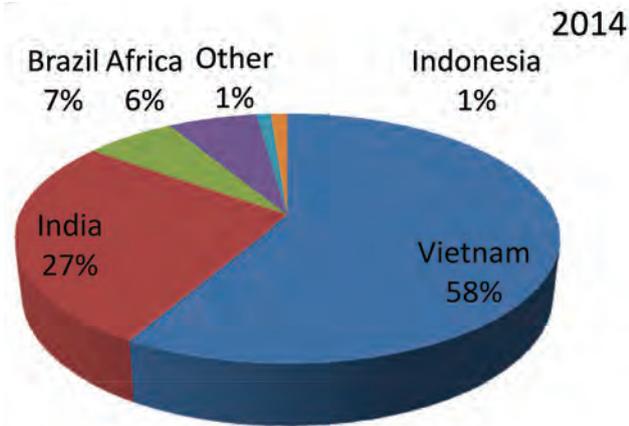


- **Indian Market**  
**Rahul Kamath** - Partner of M/s Bola Surendra Kamath and Sons, one of the leading exporters of cashews in Karnataka State, India. President of Karnataka Cashew Manufacturers Association.

## European Import is concentrated

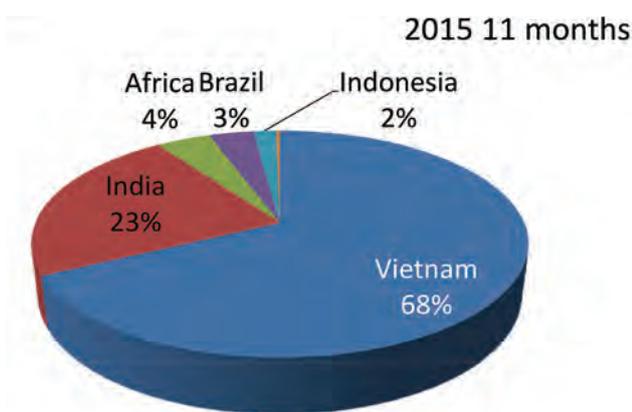


Where does Europe buy its cashews kernels ?



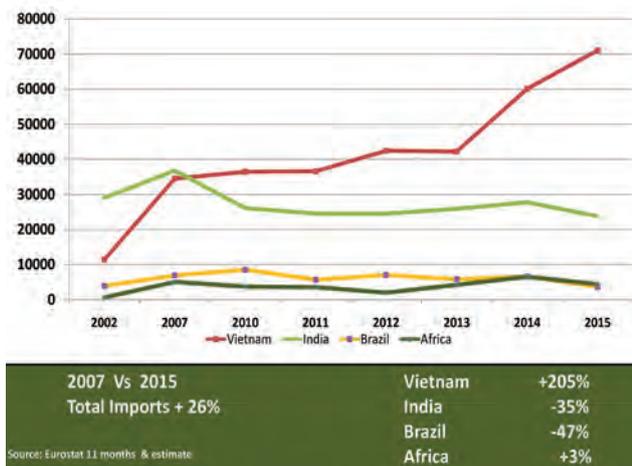
Source: Eurostat

Where does Europe buy its cashews kernels ?



Source: Eurostat

Trends in European Sourcing



European Buyer Requirements



Important Trends in European Cashews

- Food Safety is the primary concern
- Consolidation – fewer bigger buyers
- Growth – driven by increased snacking, healthy eating, stable prices.
- Powerful supermarkets
- De-commodification – direct links needed to meet buyers requirements – buyers work with processors.
- Sustainability – environmental & social

Europe and Prices- WW320 US\$ & Euro/Lb

Sources: ISS, World BankF



Sources: ISS, World Bank

Impacts demand in 2016 ?

Summary

- Long term positive outlook.
- Buyers requirements more complex require more complex & long term relationships with suppliers.
- Social and Environmental issues key.
- Growth may be interrupted by price rises to the consumer in 2016

# Developments in the American Cashew Market

Mr. Marc Rosenblatt, The Richard Franco Agency, Inc. Food Brokers

## Growing American Market

- Stable market allows for planning and promotion
- Reasonable prices
- Adequate supply – buyers are able to get what they need
- However
  - Global economic uncertainty
  - America is only 20% – 25% of global market
  - More competitive prices on tree nuts

## Reasonable & Stable Prices



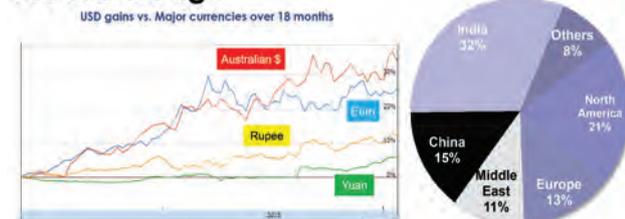
Cashew remain attractively priced  
 Volatility since 2012 has been at an all-time low\*

\* Based on available data beginning in 1970

## USD Advantage

USD gains vs. Major currencies over 18 months

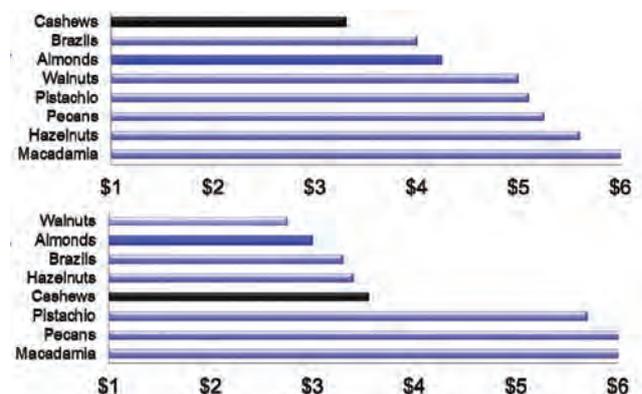
## USD Advantage



“ Exchange is taking a deep dive. Combined with serious issues about the economy, we expect 2016 to be a difficult year... [as currency will] mean a 15% increase on shelf prices” – Large European buyer

“To be honest... our currency took a dive so it just made everything prohibitive.” - Large Australian buyer

## Cashews vs Other Tree Nuts



Cashew demand benefited from a relatively low price point

However, that is no longer the case

## Lag Time



## String Contract

February 2015



## Roast & Salt

July 2015 – April 2016



**Shipment**

Mar - Dec 2015



**On Shelf at Retail**

August 2015 – May 2016



**Into Warehouse**

May 2015 – Feb 2016



**Into Warehouse**

May 2015 – Feb 2016

**Confectionary Use**



- Cheap cashew pieces drove strong growth in confectionary usage
- Demand is now falling off due to higher prices and cheaper substitutes

**Food Safety**

- Food Safety Modernization Act
- Need high quality 3rd party audits
- Increased documentation requirements
- FDA concern over salmonella contamination

Requirements and expectations are only going to increase; processors that proactively make improvements will benefit

**Conclusions**

- American cashew market is growing but challenges and uncertainty remains
- Buyers remain cautious given the global economic environment
- Cashews are attractively priced but are no longer the cheapest nut
- Food safety is a major priority

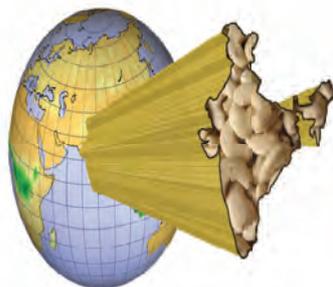


# Cashew Kernel Markets in 2016 - INDIA

Mr Bola Rahul Kamath, Bola Surendra Kamath & Sons

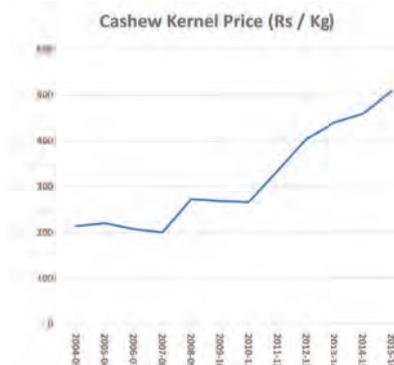
## Why Indian Market Is So Important

	Market share (Approx)
<b>Cashew World</b>	
Second Biggest Producer of RCN	30%
Biggest Importer of RCN	60%
Biggest Processor of RCN	60%
Biggest Manufacturer of CK	60%
Second Biggest export of CK	22%
Biggest consumer of CK	37%
Fastest growing market	?



## Cashew Kernel Price Chart

Year	CK Price (Rs/kg)
2004-05	214
2005-06	220
2006-07	207
2007-08	200
2008-09	273
2009-10	269
2010-11	267
2011-12	335
2012-13	404
2013-14	441
2014-15	460
2015-16	509



## Assumptions and Challenges

- Indian Trade Data is for Financial Year (April/March)
- Carry Forward inventory assumed constant, Yield assumed constant at 23%
- Cashew Kernel import figures are ignored.

## Challenges in Estimation

- Large unorganised sector, so impossible to gather correct data.
- 200000 + cashew farmers
- 3000 + cashew processing units in India
- 25000 + cashew traders
- No Reporting authority or Board like Almond Board of California

## Analysis .. Why Indian Market is slowing Down

- Have prices gone up too fast ?
- Prices in USD has gone up + Indian Rupee has weakened
- We are using average export realization in rupees as benchmark to compare prices. But, India uses more of broken grades and its prices have gone up more sharply
- Indian Inflation is near to zero, Nut prices going up at 10% per annum

## Past .... Estimation of Indian Consumption

Year	Raw Cashew Nuts		Cashew Kernels				Quantity in MT	
	Indian Crop	Import	Total Processed	Production	Export	Consumption	Absolute	CAGR
	(1)	(2)	(3) = (1)+(2)	(4) = (3) X 0.23	(5)	(6) = (4)-(5)	Growth	%
2004-05	544000	578884	1122884	258263	126667	131596		
2009-10	613000	755959	1368959	314861	117991	196870	65273	11%
2014-15	650000	939912	1589912	365680	118952	246728	49858	6%

## Past ....Cashew Consumption Vs Other Dry Fruits

Year	CASHEW KERNELS			ALMONDS			PISTACHIOS		
	Consumption	Absolute	CAGR	Import	Absolute	CAGR	Import	Absolute	CAGR
		Growth	%		Growth	%		Growth	%
2004-05	131596			21087			4972		
2009-10	196870	65273	11%	49330	28243	24%	9198	4226	17%
2014-15	248316	51446	6%	65385	16055	7%	10813	1615	4%

## Present ..... Estimations for 2015-16

	April/Jan	April/Jan	Qty in MT
	2014-15	2015-16	Change
Domestic RCN Production	650000	675000	4%
Import of RCN	834139	881307	6%
Total RCN for processing	1484139	1556307	5%
Estimated RCN Inventory in hand	150000	170000	13%
RCN Processed	1334139	1386307	4%
CK Output at 23%	306852	318851	4%
Export of Cashew Kernels	100208	84424	-16%
Supply of CK into Indian market	206644	234427	13%

## Future ... Looking into 2016.. Reasons for worry

- Cashew Kernel Export price has touched Rs 532/Kg in Dec 2015 compared to Rs 473/Kg in Dec 2014. (Up 12%)
- Almond, Pistachios, Raisin prices have collapsed in

last 4 months.. But cashew prices are still going up

- After a long gap, Almonds have become cheaper than cashews
- Dry fruit traders lost plenty of money
- Changes in taxation system like GST can increase cashew prices, further effecting consumption.

**Future ... Looking into 2016.. Reason for Worry**

- Fall in Commodity prices / share markets is reducing the cash flow with consumers.
- Banks have become extremely cautious in lending due to increased NPA.
- Working capital required for cashew industry has gone up 50% in last two years.
- Food Safety Authorities have become more vigilant

**Future ... Looking Beyond 2016 .. Long Term**

- India is the fastest growing big economy in the world.
- India will be worlds' third largest economy by 2025
- Indians love cashews in everything they eat, be it biscuit, sweets, dishes or chocolate
- Cashews/dryfruits as gifts will never go out of fashion
- Now Indians believe cashews are their local product!

**Conclusions**

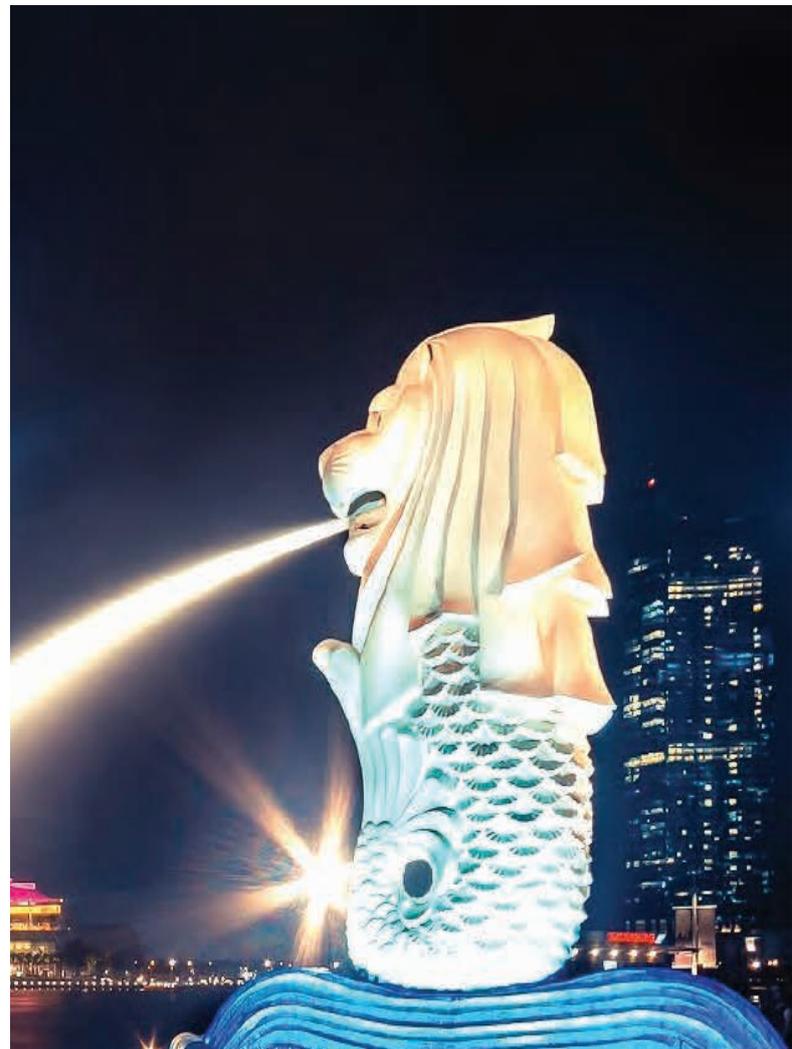
- Year 2016 will be extremely challenging.
- Whether Cashew Prices need a correction ? Its question of time
- Thank you and All the Best.



**Mr Gunjan V. Jain, VKC nuts Pvt.Ltd**

You guys have put up an excellent platform where people together who are discussing issues which are sometimes done behind closed doors . Everybody is looking at a

common goal which is growing the industry. People who were in denial as to what's going on in the industry, after this convention are going to accept the fact that dynamics of the industry are changing and they need to upgrade themselves to move in with time.



MARK YOUR DATES  
**3<sup>rd</sup> WORLD CASHEW CONVENTION**

**9-11 Feb 2017, Singapore**



## Quality and Food Safety Aspects

Mr Jim Giles, Quality and Food Safety Expert

### Roaster Issues:

- Infestation controls are prevention, inspection and packaging standards must use pest control programs, screens (netting), storage standards and limits, work in process controls (WIP), aspiration in the packing line also in packing line, tools to test for vacuum and modified atmosphere, inspections, reports, analysis of records and training.
- Foreign Material controls require staff compliance to hygiene and dress standards (GMP's), glass and hard plastic controls and protection, tool and equipment that are cleanable, (and they are not possible source of contamination), inspections, controls and systems for detection including magnets and metal detectors, calibration of aspiration equipment effectiveness for foreign material removal (hair, testa, dust, paper), and quality system for recording results and analysis of findings.

### Roaster Issues (contd):

- Grading must have adequate lighting, standard understanding and compliance, training and validation.
- Taste testing on each lot by a qualified person or panel that ensure organoleptic acceptability.
- Clumping/blocking controlled by moisture and vacuum control on the finished product.
- Food Safety requires plant and personnel GMP compliance, periodic safety testing for chemical residue and microbial status, cleaning procedures, animal control, inspection of facility, equipment and staff, design standards, exterior standards, container handling and cleaning.

### General guidelines for all plants:

- Staff dress must assure all hair on both men and women are covered from cutting to packing. Clothes must be clean and free from contamination conditions, especially sequins. Aprons or smocks should be required after peeling. Visitors and management should observe same rules as staff.

- Pest control program is required. Some older structures have open areas between rooms, even if divided at ground level. This allows pest access to all areas. Insects must be prevented from entry by sealed doors and windows that have fine mesh mosquito netting. Domestic animals should not be in the cashew grounds. Pest monitoring using traps should be installed and insect electric traps need to be placed correctly, not over product, lights changed yearly and not exposed to open doors where they could attract insects into the area. Chemicals used must be safe and permitted by countries where product is transported.

### General guidelines for all plants:

- Taste testing is critical for shelled cashews, this includes a roast test as defined in AFI specifications. AFI specifications should be available for reference and included in staff training programs.
- All glass and hard plastic needs to be protected and contained if breakage occurs.
- All rags used on product contact surfaces must be clean and free of fraying strings.
- Hand washing must be accessible to staff, equipped with soap and clean drying cloths and hand washing requirements enforced.
- Product containers should be cleanable, floor contact prohibited, undamaged, use restricted and covered when not in use. Stacked pans should avoid direct contact with cashews below. Eliminate wicker baskets and ensure a cleaning schedule that maintains the containers in a suitable and dry state
- Eliminate all non-food contact surfaces from processing. This includes wood contact because wood is difficult to clean and can splinter. Formica covered tables must be inspected and maintained to assure no breaks in the Formica. Seams should be easily cleaned. Avoid painting food contact surfaces and remove any peeling or flaking paint.
- All lubricants used must be food approved.
- Master Cleaning Schedule is needed in all facilities

that include frequency, method, tools, cleaning chemicals, post cleaning inspection and program review.

- Quality is every ones responsibility but there should be one person designated to be Quality and Food Safety head
- Work In Process must be limited and processed within specified times. It must be covered with a sanitary cover and protected from infestation or any deterioration
- Packaging must include inspection, aspiration, sieving, metal detection and package assessment for integrity. Packaging material should be kept sanitary and not used for alternate purposes. Area should be separate from other areas, used only for cashew packing and access limited to staff required in area

**Tools recommended are:**

- Moisture detector for cashew acceptance at delivery, in-process and finished product
- Vacuum gauge for finished package to confirm within range of standards
- Metal Detector or at least a magnet on all finished product filling lines
- Oxygen Analyzer for assuring correct modified atmosphere in finished package

**Social Compliance Audit**

**Factory Visit:**

**1. Preparation for audit requires**

- National regulations
- Meet with management to review audit points and obtain management’s comments
- Documentation review and request

**2. Audit using ACA and/or external auditors**

- System for compliance
- Documentation Reviewed including employee handbook and communications with staff
- Audit completion and grading
- Review of actions required
- Re-inspection if needed

**3. Areas for evaluation**

**A. Child/Prison Labor**

1. Review national regulations and company policies, is there an employee handbook
2. What are the verification procedures for age?
3. Observe staff during tour and follow-up if anyone appears to be underage
4. Regulatory enforcement program review
5. What is company policy and procedures relating to prison labor?

**B. Work Conditions**

1. Is there adequate ventilation and lighting?
2. Condition of staff facilities for eating, changing personal storage, restrooms and washing?
3. What is the safety plan?
4. Are there any medical services available for staff?
5. Is any home processing done? Any co-manufacturing?

**C. Pay**

1. What is the country and company minimum wage?
2. How are results tracked and piece rate determined?
3. Documentation review

**D. Work Period**

1. National regulations and company policy on work periods.
2. What are the times of work?
3. What are results if time period exceeded?

**E. Discrimination, Harassment, Abuse**

1. Company instructions to staff and training conducted on subject
2. Employee recourse to violation
3. Documentation if occurs
4. How does staff know of the policy and procedure

**F. Freedom of Association**

1. Review national laws and company policy
2. How is freedom of association ensured
3. Record of staff training reviewed



# Perceptions of US based Cashew Buyers

Mr Bob Bauer, President, Association of Food Industries

## Perceptions of U.S.-Based Cashew Buyers

Bob Bauer, President  
Association of Food Industries  
February 2016

### Methodology

- 5 Returned Surveys
- Conversations With 4 Other Buyers

### Supply Origins Breakdown

1. Where do you source your kernels from?				
Origin	White Wholes	Scorched Wholes	Pieces	All
Brazil				9
India	1			9
Vietnam	2		2	7
Africa				7

### Country Grades

- How do you rate the overall contract performance of sellers in each of the origins?

(6-consistently excellent; 5- very good; 4-Good; 3-Can be improved; 2- Not reliable; 1- No comments)

Brazil: 5.6  
India: 4.2  
Vietnam: 3.5  
Africa: 3.5

### Supply Issues

- Lack of (Steady Supply of) Material
- Foreign Material
- Contract Performance Issues
- Inconsistent Grading
- Unreliable COAs

## Typical Product Quality Issues

	Traceability	Foreign Matter (pl. specify)	Condition (incl. moisture)	Sensory (odour/colour)	Live Infestation
Brazil	0	2	2	1	0
India	6	4	2	2	8
Vietnam	6	5	3	3	6
Africa	5	5	2	2	3

### Specific Issues Mentioned

- Brazil – Stones, High Moisture, Dark Color
- India – Hair, Could be Dry, Chemical Off Taste
- Vietnam - Blemishes

### Typical Food Safety-Related Challenges

	Traceability	Accreditation/ Certification	Transparency on Information Sharing
Brazil	3	0	0
India	4	4	4
Vietnam	4	6	8
Africa	4	6	6

### Initiatives Needed in Next 1-2 Years

- Pasteurization, Less Foreign Material, Better Packaging, Better Traceability, Eliminate Infestation, Improve Microbiological, Salmonella, eColi, etc., Uniform Grading, Improve Contract Performance, Stop Buying Kernels from Unapproved or Unknown (to us) Factories & Shipping Them as Your Own

### Biggest Initiative Needed – FSMA Compliance

- Preventive Control Plans
- Hazard Analysis
- Preventive Controls
- Monitoring Procedures
- Corrective Actions
- Verification
- Recordkeeping

### Thank You

Bob Bauer, President  
Association of Food Industries  
www.afius.org  
Bobbauer@afius.org



# Quality Requirements for US Market

The Richard Franco Agency, Inc. Food Brokers

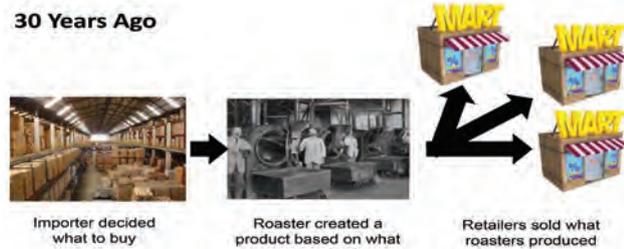
## Introduction

- Growth in Private label and its impact on quality requirements
- Food safety
  - FSMA
  - 3rd Party Audits
  - Documentation
  - Microbiological

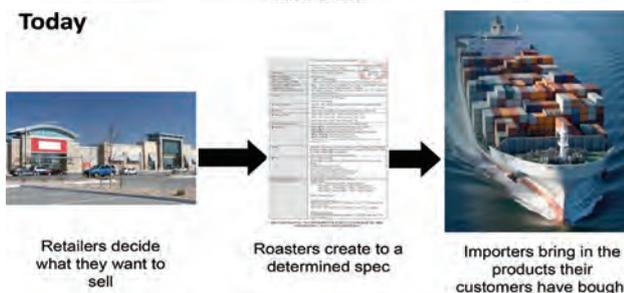
## Growth in Private Label



## 30 Years Ago



## Today



## Impact of Private Label

- Product must be within specifications!
- Specifications and marketing programs are set well in advance
- Can't adjust quickly based on price differentials or other market opportunities
- Greater uniformity across products
- High quality standards – product quality impacts the store wide brand, not just the category

## FSMA



## 3<sup>rd</sup> Party Audits

Almost all buyers require 3rd party audits. Minimum of:

- HACCP
- ISO22000

Many buyers are looking for higher level 3rd party audits

- BRC version 6
- FSSC 22000
- SQF Level 2 and 3

## Documentation

- COA
- Full HACCP plan
- Product guarantee
- Recall plan
- Allergens
- No chemical residue
- Traceability

## FDA Concerned with Salmonella and nuts



## Conclusions

- Product must be within specification
- Food safety is a major concern
- Processors need high level 3rd party audits
- Tight controls to prevent microbiological contamination
- No foreign material
- Shippers should create documentation packets including their HACCP Plan



## Quality and Food Safety Challenges Encountered by Value Added Manufacturers while buying Cashews Kernels In India

Mr Gunjan Jain, VKC Nuts Pvt. Ltd.



### Presentation Roadmap

1. About VKC Nuts
2. Present Cashew Scenario in India
3. Changing Consumer Expectation
4. Challenges Faced
5. Suggestion/Improvements

### Fully Integrated Processing Plants

#### State of the Art Processing Plants

1. Multi Location & Multi Product Processing Facilities.
2. Equipped with Laser Sorter, Graders
3. In House Cold Storage at all Location.
4. Special Equipment for Flavoring, Roasting, Dicing & Slivering.
5. Modified Atmosphere Packing House.
6. Fully Equipped Quality Control & Product Development Lab.



### Changing Consumer Expectations



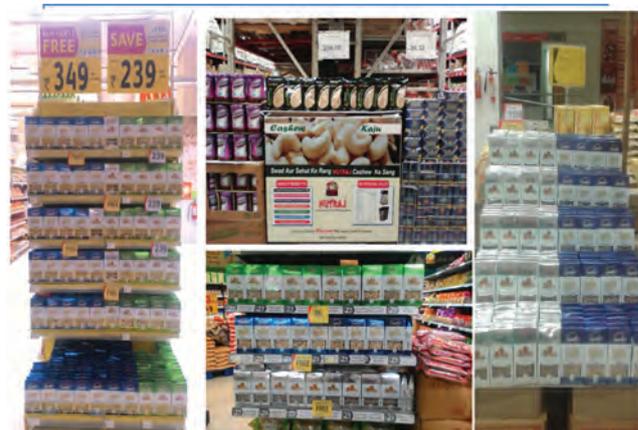
### Changing Customer Expectation



### Changing Customer Expectation



### New customer needs



### Cashew, The Much Loved Nut....

#### Commanding Our Strategic Focus

- A Major Buyer Of Cashews Today
- Have Built Sizeable Scale In
  - Retail Segment
  - Institutional Segment
- Introduced Multiple Flavors
  - A Big Hit With End Consumers
- Customisation For Large Institutions
  - Developing Variants Suiting Their Needs

#### Present Cashew Scenario - India

- Huge Increase In Capacity
- Multi Location Processing Centers
- Newer Technology In Processing
- Lower Percentage Of By Products Like Broken
- Production Efficiency

**Food Safety Concerns**

- FSSAI is becoming very strict
- Legal metrology
- Health Claims
- Customer Claims

**Cashews - Current Challenges as Seen (Experienced)**

**Lack of Standardisation-**

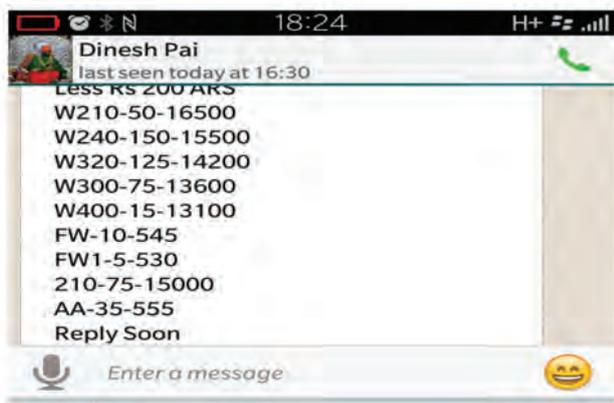
Every Processing Unit has a different definition e.g.

- WW240
- W240
- SW240
- P240
- D240

Even Different factories of same supplier has quality variations

**Irregular Pricing Structure**

- Offered prices are always in per 22.68KG(50Lb) format
- Sale price in per KG format
- Packing/Invoicing in per 20 KG packs



Good quality  
 W210 - 1-16500  
 A240 - 8-14400  
 M240 - 23-13600  
 DW240 - 4-12800  
 W320 - 5-13600  
 A320 - 14-13350  
 M320 - 33-540  
 SSW - 10-12700  
 W400 - 3-12700  
 FW1 - 5-480

FW2 - 3-430  
 DW1 - 2-470  
 RW - 2-470  
 KW - 1-460  
 KW1 - 5-360  
 OW - 4-300  
 OW1 - 3-200  
 DS - 11-520  
 JK - 3-12600  
 K - 3-12400  
 LWP - 62-12200  
 SWP - 5-500

**Cashew - Packaging An Area Of Concern**

- Tin Packing
  - Although Nitrogen flushed we do get an infestation issue in 2 out of 100 TINS in almost all lots
  - We still get some solder contamination
- **Moving from TINS to Vacuum Packs is a Welcome Step**
- **However 22.68KG or 20 KG Vacuum Pack is not the ideal size to handle**
- **Issues in Transit**
  - Rough handling by Typical Indian transit Labour force
  - Breakage of Cartons and Contents inside
  - Leakage of Vacuum

Palletised in Container

Hand Handled by Labour



**Suggestions**

- Switched to 5KG X 2 Vacuum Packing in Walnuts for Institutional & Exports Replicating in our packs of Cashews for Institutional Packs
- Advantage
  - Easy to handle
  - Less Breakage
  - Replicated



Thank You



# Improvements in Quality and Food Safety Processes at Cashew Processing Factories in India

Dr B Jacob, Managing Director, Trans Synergy Quali Systems (P) Ltd (Synergy Systems)



## Conventional Processing Methods

- Labor Intensive
- Mostly Manual
- Emphasis on Product Quality only
- No serious concern about process quality

## Major Transition

- Change from Tin packing to Flexi bag packing.
- Problems in Flexi bag packing
  - Bonding
  - Leaky Pouches
  - Infestation
  - Use of non food grade pouches
  - residual vacuum
  - Other problems

## Change in food safety concerns

- WTO
- SPS agreement
- Equivalence
- Rights and responsibilities of member countries
- Codex standards

## Food Safety Management

- HACCP
- GMP
- Personal hygiene
- Pest control

- Waste management
- Monitoring Food Safety throughout the food chain

## Change in processing methods

- Mechanical processing replacing manual processing.
- Problems
  - Absence of preventive maintenance of machines
  - Ineffective cleaning of food contact surfaces
  - Lack of awareness among workers
  - Contamination from dirt, slime, machine oil, metal parts etc.
  - Increasing incidence of infestations

## Food Safety Concerns of importing countries

- US-FSMA
- CT PAT
- Traceability
- FDA registration of food processing units
- EU Countries regulations
- Japanese buyers' expectations
- End users' concerns and expectations

## Food Safety certifications

- HACCP
- FSMS
- FSSC
- IFC
- BRC
- GAP
- Organic Certifications

## Areas requiring attention

- Skill development for mechanical processing of cashews

- Introduction of management tools like
  - Kaizen
  - 5WHY
  - 5S
- Integrated approach for productivity and sustaining product quality

**Research and development**

- Research in improving processing technologies
- Streamlining production of processes to improve productivity
- Product development
- Marketing and promotional techniques

**Indian Cashew Industry**

**Track record of improvements over the time**

- Introduction of IPQC (In process quality control)
- Flexi packaging system
- High efficiency hot chamber
- HACCP and Food Safety concepts
- Steam processing of RCN in place of oil bath roasting
- Installation of metal detectors
- Aspirators and foreign matter segregators
- Conveyor system for online checking
- Use of gas mix of CO<sub>2</sub> + N<sub>2</sub> in flexi packing
- Color sorting machines
- Use of hand sanitizers for workers
- Use of head gears, aprons, etc
- Pest control operations including fumigation wherever necessary
- Use of carton flexi bags, tins confirming to BIS specification
- Food safety management system implementation (HACCP/FSMS/FSSE/IFS/BRC etc)

**The future**

- Food laws and regulations are likely to undergo dramatic changes in future.
- Food laws and regulations are likely to undergo dramatic changes in future.

- Analytical techniques for contaminants and pathogens are becoming more and more sensitive with increased detection capability . Consequently consumers would demand foods with lower limits of contaminants and perhaps, totally free from them.
- The demand for safer and healthier foods would be a challenge for the Indian food export Industry, while it would also open opportunities for us to supply foods meeting the exacting requirements of the buying countries and also the domestic market which is getting sensitized by stringent food safety requirements.




**Meyers, China**  
 It's a great platform for whole of the cashew fraternity; In this convention we were able to meet the potential customers from over the world. We are glad to be here and thanks to cashewinfo for providing a great opportunity .



**Ms B.K. Menik Buddhini , Director, Buddhi Industrieries (pvt) Ltd**  
 It's a great platform to meet all the stakeholders of cashew; it not only improves the relationship between the parties but also helps to share ideas. I can say, Cashewinfo is in turn helping a lot to improve the sector, Thank You very much

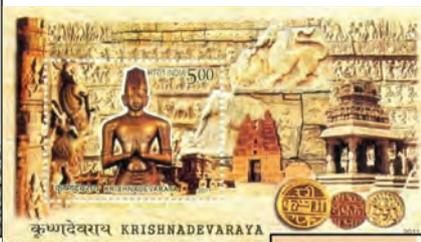
# Krishnapatnam Port : A Case for Cashew Ecosystem

Ms Vinita Venkatesh, Director, Krishnapatnam Port Container Terminal

## KPCT Heritage



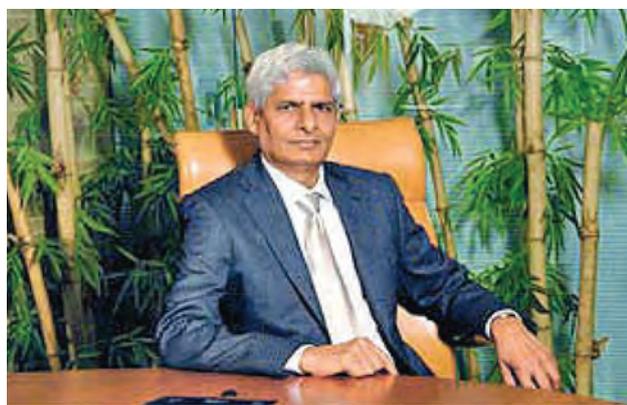
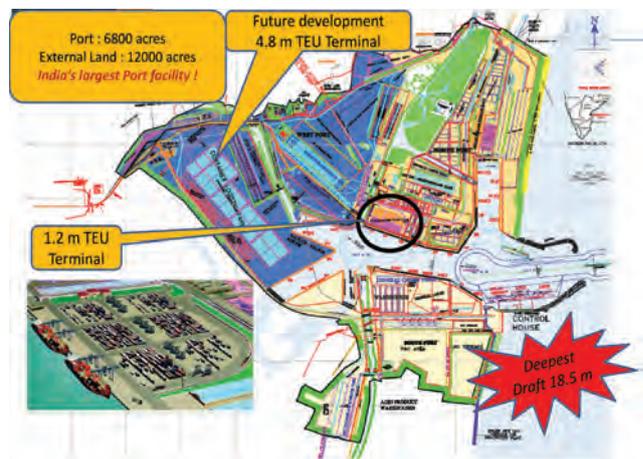
Krishnapatnam was a bustling port in the rule of King Krishnadevaraya in the 1500s



Navayuga Engineering Company  
 Krishnapatnam Port Company  
 Navayuga Power Corporation  
 Navayuga Info Tech  
 Navayuga Spatial Technologies  
 Krishnapatnam Infratech



## KPCL Master Plan



Mr C.V. Rao  
 Chairman, CVR Navayuga Group

## Connectivity & Infrastructure

- Krishnapatnam Rail Co Ltd (KRCL)
- Special Purpose Vehicle to provide rail connectivity to the Port
- Stakeholders:
  - The Govt of Andhra Pradesh
  - Krishnapatnam Port Company Ltd
  - Rail Vikas Nigam Limited

**CONVENTION**



**Krishnapatnam Rail Co Ltd (KRCL)**  
 • Special Purpose Vehicle to provide rail connectivity to the Port  
**Stakeholders:**  
 • The Govt of Andhra Pradesh  
 • Krishnapatnam Port Company Ltd  
 • Rail Vikas Nigam Limited




Export Inspection Agency, PQ, Pest Residue Inspection Lab etc.

Certified as Authorised Economic Operator by the Central Board of Excise and Customs

- month
- Zero CFS Cost
  - No multiple handling
  - Competitive handling charges



**Cashew Imports at KPCT vs. other Ports: Cost Comparison  
 Competitive and Efficient Supply Chain**

**CONVENTION**

Liner Coverage : Maersk, MSC, SAF, CMA, PIL , Hanjin  
 Transhipment at Colombo  
 Transit time to KPCT : 35- 40 days  
 Lowest end –to –end transit time to AP, Telangana and Bangalore

**Cashew Imports @ KPCT**



**CASHEW PROCESSING INDUSTRY CLUSTERS IN A.P. DISTANCE COMPARISON BETWEEN KPCT & TUTICORIN**

KPCT – Visakhapatnam	306 km	Tuticorin – Visakhapatnam	848 km
KPCT – Chittoor (Rajamahendravaram)	487 km	Tuticorin – Chittoor (Rajamahendravaram)	1249 km
KPCT – Palasa	820 km	Tuticorin – Palasa	1572 km
KPCT – Tanu	553 km	Tuticorin – Tanu	1294 km

- Distance advantage from Port to cashew processing

**Advantages for routing Cashew through KPCT**

- Importer can save additional cost through truck movement from Krishnapatnam Port to the final place of delivery in Andhra Pradesh.
- As a special case, Krishnapatnam Port is ready to consider additional free DM time (up to 14 days) on a case-to-case basis through respective lines.
- Stuffing/de-stuffing inside the closed warehouses. Therefore, 24/7 storage and handling of cargo.
- Cargo storage of 15 days free time available at KPCT.
- Bonded warehousing can be provided

Liner Coverage : Maersk, MSC, SAF, CMA, PIL , Hanjin  
 Transhipment at Colombo  
 Transit time to KPCT : 35- 40 days  
 Lowest end –to –end transit time to AP, Telangana and Bangalore

**KPCT: Cashew Import Advantage**



**Other Advantages**

- Plant Quarantine (PQ) office available near port
- Certification of Food Safety & Standards Authority of India (FSSAI) at the earliest
- Quicker clearance at terminal
- High Seas Sales: Manifest amendment within 1

**Cashew Processing Unit: Why KPCT!?!**

**Land Availability:** 12,000 acres available for port-based industry.

Both Purchase as well as Leasing option available.

**Climate at KPCT:** Ideally suited for drying cashew.

**Vessel Calls:** 3 Vessel calls per week to Colombo

**Single Desk Clearance:** Single Desk Portal for approvals within 21 days in AP.

**Electricity:** 17000 MW of power plants. INR 1 / unit power cost

reimbursement for 5 years

**Stamp Duty:** 100 % Re-Imbursement

**VAT, Central Excise and Income Tax:** 100% Re-imburement for 5 years

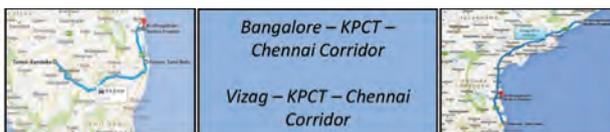
**Labour:** 3000 strong women-force available through CSR, almost 40-50% cheaper than Kollam in Kerala

**Road & Rail Connectivity:** Excellent road and rail connectivity within 25 KMs

Port facility within 10 KMs for import / export

**Warehousing:** Available inside the port itself

Land Cost	1 acre	INR 40 lakhs (Discounted)	USD 60,000
Trained Labour	500 lady worker pool	INR 250 - 300 / day / worker	USD 4.00
Water	5000 litres / trip	INR 2000 / trip	USD 30.00
Electricity	132 KV supply	INR 5.19 / unit	USD 0.07



**Ease of doing Business: World Bank ranks Andhra Pradesh No. 2 in doing business in India!**

**Recognitions**



**CSR Award for KPCL**  
 at Seatrade Maritime Awards 2014  
 Dubai, October 27, 2014



Thank you

## In Search of El Dorado

Meeting RCN Buyer's Quality, Expectations

Mr Krishnan G Nair, KGN



The beauty of Mother Nature is her ability to make complex things appear simple

ARE CURRENT PROCEDURES ADEQUATE?

Max Vs Min

Reciprocal Vs Non reciprocal

Cutting outturn efficacy

(eg 48 lbs = 273 gms = 265+8/250+23)

### QUALITY EXPECTATIONS

Commercial

Safety & Regulatory

Sentimental

WHAT ARE THE INITIATIVES TAKEN FROM THE SUPPLY SIDE?

THE PAST – was built on trust

THE PRESENT – is built on necessity

THE FUTURE – will be built on safety

### FACTORS

Controllable

Uncontrollable

LET US HOPE WE FIND OUR RAW CASHEW EL DORADO



WHAT DO BUYERS EXPECT?

(survey results)



## Origin-wise Buyers Perception on Delivered Quality of RCN and Experiences so far

Mr R. Balasubramanian, CEO, RBS Maritime Services

### PROBLEMS FACED BY BUYERS WITH DELIVERED QUALITY:

#### A) Frequently faced Problems:

1. Wet Damage due to Moisture Condensation in the containers.
2. Large Outturn difference.

#### B) Occasional Problems:

1. Pilferage of cargo from Containers in Transit
2. Shipment of very old, completely damaged cargo by Fly- by - night operators

### Wet Damage due to Moisture Condensation in Containers:





**Moisture Condensation in Containers causes two type of Damages/losses:**

1) Direct loss arising out of damages like:  
 Decayed nuts, germinated nuts, mouldy nuts & Blue kernels

2) Indirect / imperceptible loss like:  
 Driage loss, ranging from 3 to 8%  
 Dimness in the color of the raw kernels.  
 Colour change on roasting of kernels  
 Foul smell from kernels  
 Loss of taste in kernels  
 Fungus growth between cotyledons



<b>ORIGIN-WISE MOISTURE CARGO (CONTAINERISED) PROFILE</b>									
<b>Number of containers (20' &amp; 40') Inspected by RBS</b>									
ORIGIN	2013 - 2014			2014 - 2015			2015 -2016		
	Total containers	moisture affected		Total containers	moisture affected		Total containers	moisture affected	
		CTRS	%		CTRS	%		CTRS	%
BENIN	3756	251	6.68	4817	118	2.45	6300	641	10.17
BURKINA FASO	213	14	6.57	376	4	1.06	916	1	0.11
GUINEA BISSAU	4135	975	23.58	3594	1053	29.30	3373	741	21.97
GAMBIA	1520	215	14.14	1334	312	23.39	638	49	7.68
IVORY COAST	7390	759	10.27	15196	947	6.23	15812	2508	15.86
TOGO	273	5	1.83	264	27	10.23	390	30	7.69
SENEGAL	442	50	11.31	1037	187	18.03	503	31	6.16
OGBOMOSHO	124	17	13.71	103	34	33.01	286	111	38.81
NIGERIA	359	190	52.92	770	250	32.47	1627	811	49.85
MOZAMBIQUE	843	6	0.71	375	5	1.33	104	2	1.92
TANZANIA	5184	133	2.57	6546	306	4.67	4018	218	5.43
GHANA	4935	572	11.59	2678	379	14.15	2666	721	27.04
GUINEA	492	81	16.46	616	176	28.57	448	88	19.64
INDONESIA	722	144	19.94	350	58	16.57	875	29	3.31
<b>TOTAL</b>	<b>30388</b>	<b>3412</b>		<b>38056</b>	<b>3856</b>		<b>37956</b>	<b>5981</b>	
<b>PERCENTAGE</b>	<b>11.23</b>			<b>10.13</b>			<b>15.76</b>		

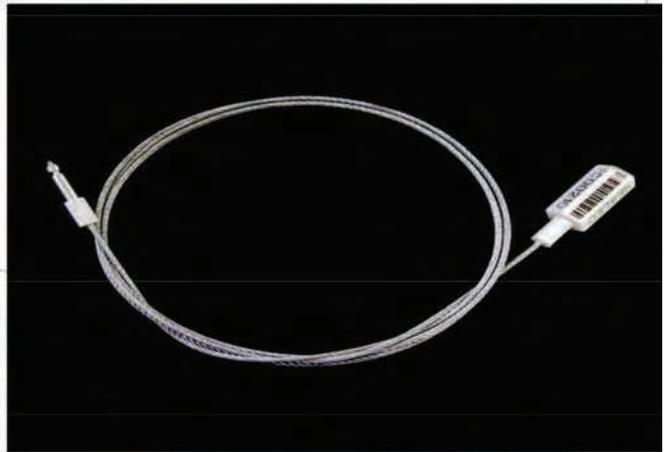
**Cause of large outturn difference:**

1. Inadequate Drying of the nuts before shipment.
2. Inspection by inexperienced people at Load Port.

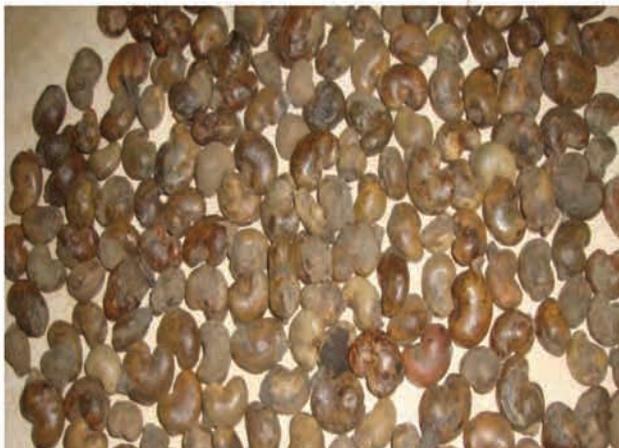
**Type of tampering with seals / locking system**



## Pilfered containers & alternative sealing device



## Very old cargo:



## Delivered Quality of RCN

Mr R Balasubramanian, RBS Maritime Services

### Results of dip-stick survey of RCN importers from India

	Ivory Coast	Benin	Ghana	Nigeria	Guinea Bissau	Tanzania
Foreign matter	100%	100%	100%	100%	100%	100%
High Moisture (>10%)	56%	50%	50%	50%	80%	29%
Slightly molded / musty RCN	88%	75%	67%	50%	33%	20%
Serious mold / musty RCN	43%	50%	50%	50%	67%	17%
Spouted / Decayed /Rotten RCN	90%	57%	50%	33%	67%	0%

### Results of dip-stick survey of RCN importers from India

#### Other challenges

- Port congestion – Ivory coast, Tanzania, Guinea Bissau
- Operational Delays- Tanzania, Nigeria, Benin

#### Recommendations from India

##### (Source: cashewinfo survey)

- Dry well (less than 8%) before putting RCN in the cargo
- Foreign matter – address the issue
- Deal with port congestion and operational delays to ensure cargo reaches destination in 30 days.



## Initiatives and Actions taken to Improve Ivory Coast Origin Raw Cashew Nut

Mr Meite Inza, Executive Secretary, AECCI

### SUMMARY

RAW CASHEW NUT IN IVORY COAST  
 PRESENTATION OF AEC-CI  
 INITIATIVES FOR A BETTER QUALITY

### CASHEW PRODUCTION IN IVORY COAST CASHEW RANK

Second agricultural speculation after cocoa .

### NATIONAL PRODUCTION OF RAW CASHEW NUTS

National production of raw cashew nuts is estimated at more than 700,000 T .

### GLOBAL MARKET SHARE

Approximately 30 % of the global supply.

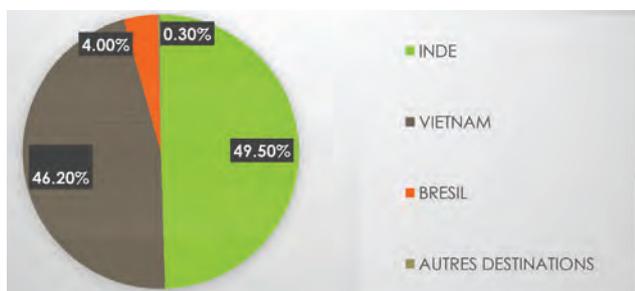
### ECONOMIC IMPACT IN IVORY COAST

600 000 producers and almost 2.5 millions people are directly and indirectly depending on cashew .

### STATISTICS OF THE 2015 CAMPAIGN

2015 Campaign products more than 700,000 T of raw nuts.

### 2015 EXPORTS DISTRIBUTION BY DESTINATION (650,000 T)



### PRESENTATION OF AEC-CI

#### CREATION OF AEC-CI

AEC-CI has been officially established in February 2010 .

### STATE OF OUR ASSOCIATION

AEC-CI regroups almost all Cashew Nuts Exporting Companies of Ivory Coast.

AEC-CI represents more than 95% of the cashew nuts exported volume by Ivory Coast.

### AEC-CI MISSIONS :

- Participating in the elaboration of cashew nut sector national policy
- Promoting Ivory Coast origin Cashew
- Defending Ivory Coast Exporters interests;

### INITIATIVES FOR AN IMPROVEMENT OF RAW CASHEW QUALITY

#### INITIATIVES TAKEN IN IVORY COAST FOR QUALITY

- Producers coaching and awareness on quality through the good application of technical Itinerary and post crop operations;
- Establishment of Bush Bagging and Export Bagging for better conservation of the product;
- Humidity control at the unloading port . Trucks systematic rejection beyond 10% of moisture.
- Implementation of weight and quality control Certification delivery and by technical operators before export.

### KEY ACTIONS IN CASHEW SECTOR REFORM

Identification of all cashew sector players ;  
 Establishment of an annual approval system for farm gate buyers and Exporters;  
 Fixing a guaranteed minimum price to the producer  
 Marketing organization with some follow-up and control documents  
 Implementing teams and regional antennas of Cotton and cashew nut Council  
 RESULT: Net improvement of moisture, quality and ivory coast origin cashew nuts.

### THANK YOU FOR YOUR ATTENTION

MEITE INZA

EXECUTIVE SECRETARY AECCI

E-mails : [meite@aec-ci.com](mailto:meite@aec-ci.com) / [info@aec-ci.com](mailto:info@aec-ci.com) / [meit\\_inza@yahoo.fr](mailto:meit_inza@yahoo.fr)

Website : [www.aec-ci.com](http://www.aec-ci.com)



## Recent Initiatives to maintain RCN Quality in Nigeria

Mr Babatola Faseru, National President,

National Cashew Association Of Nigeria, Vice President, African Cashew Alliance

### Getting the quality issue right

When it comes to cashew in Nigeria, quality starts at the farm.

### Quality is everything

- In ensuring that we get RCN quality right at the farm the cashew improvement committee (CIM) was established.

### Farmers training

- Continuous sensitization of our farmers on proper harvesting and post-harvest handling practices is one tool we have engaged.
- We realize that the quality of raw cashew nuts can be compromised during harvest irrespective of seed quality that was grown due to improper post harvest handling.

### What we teach our farmers

- Our farmers are trained to allow the nuts fall off the trees before picking.
- The nuts are detached from the apple and dried at the farm gate to 10% moisture content, packed in jute bags and then stored in well aerated warehouses. This procedure reduces post harvest losses by over 15% while preserving the quality of cashew nuts produced.

### The tough battle

- Enforcing packing RCN in jute bags at farm gate as opposed to the use of polypropylene bags was a tough battle as it was heavily resisted when we introduced it. Before now, RCN were packed in polypropylene bags and stored which led to deterioration of RCN quality. However, we set up a structure (NCAN TASK FORCE) to maintain strict compliance and today, packing RCN in jute bags at farm gate is the norm.

### Shipment challenge

- In the past we have recorded several cases of RCN

quality deterioration at destination as a result of:

1. Short- shipment at load port.
2. Wrong RCN container placement in the vessel.
3. Trans shipment delays.
4. Long transit time.

### Millions of Dollars lost

- The shipment challenge faced by RCN exporters from Nigeria brought about millions of Dollar loss in revenue plus a bad image for the country.

### The CLM initiative

- In 2014, the Cashew Logistics meeting (CLM) was officially launched, in Zaaz Hotel Lagos Nigeria. More recently in December 2015, in preparation for the 2016 season we had the second event, having in attendance Chief Executive Officers of major shipping lines such as MAERSK, SAFMARINE, PIL, HULL BYTH, CMA CGM, COSCO along with cashew exporters and forwarders.

### Objectives of the CLM

Create a platform where RCN exporters, forwarders and shipping line operators can meet and share experience. Reduce transit time of RCN between origin (Nigeria) and destination port in India, Vietnam etc. Educate Shipping lines about the sensitivity and peculiarity of the cashew crop Establish a collaboration that jointly addresses RCN shipment challenges from Nigeria.

### A new status for our RCN

As a result of the CLM, our cashew now enjoys priority attention and preference among shipping lines, resulting in reduced transit time by 15 or more days which will impact greatly on the quality of our RCN.

THANK YOU FOR LISTENING!!



# Delivered Quality of Raw Cashew Nut - ACA's Quality Enhancement Initiatives

Mr Sunil Dahiya, Business Advisory Manager, African Cashew Alliance

## About African Cashew Alliance (ACA)

- Established in 2006, with the support of founders, i.e. USAID, Development Agencies and Private Sector
- An association of African and international businesses with an interest in promoting a globally competitive African cashew industry
- Representing all aspects of the cashew value chain including producers, processors, traders, and international buyers

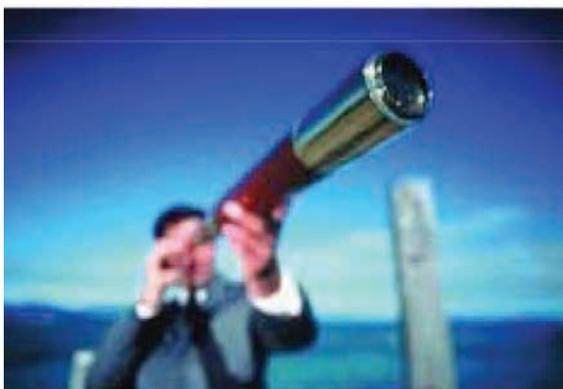
## Advisory Board:



## Mission & Vision Statement

### Objectives:

- Increase processing
- Improve competitiveness and sustainability
- Facilitate public-private cooperation



**Vision:** A globally competitive African cashew industry that benefits the value chain – from farmer to consumer.

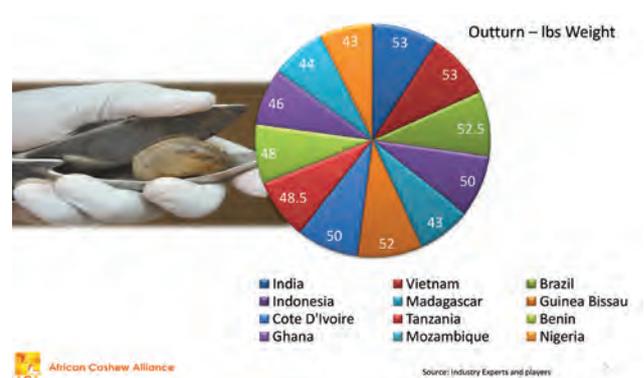
**Mission:** Support the African cashew industry by

- providing technical assistance and facilitating investments
- promoting market linkages and international standards
- creating a global platform for sharing information and best practices

## World Cashew Value-Chain Geography



## Global Raw Cashew Nut Quality Situation



**Why RCN Quality is So Important?**

- It is important to remember that the excellence and thoroughness of post harvest handling affects the quality of the product, which in turn affects the country's reputation for those products
- Product quality influences the demand for those products on the world market, which in turn positively affects the price based on the quality of raw cashew nuts
- Bottom-line: Better Quality Means “More Money”

**Markets Requires Quality RCN**

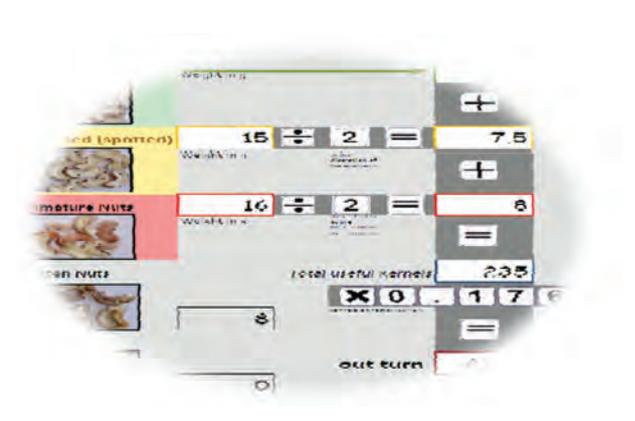
- Dried nuts with 8 – 10% moisture content
- Better nut-count and kidney shaped (>200 nuts/kg)
- Shell Color - gray, dark grey, greenish or brownish
- Healthy nuts - free from mould, etc.
- Free from foreign materials, i.e. stones, leaves, metal piece, etc. (max tolerance 0.5%)
- Matured nuts - maximum 15% defective are tolerable
- Packed and stored in Jute Bags
- 48 lbs and above Outturn is quality grade while >43 lbs quality is poor grade and usually rejected

**Quality Issues Farm Gate - Africa**

- Cashew not yet taken as ‘Transformation Commodity’ rather as a bush-crop
- Aged trees and seedlings of poor genetics resulting in poor yields (450-550kg/hect/season in Africa as against 1-1.7MT obtained in Vietnam, Brazil and India)
- Minimal literacy and efforts on quality, organic and advanced farming
- Less transparent price due to dependency on external final buyers
- Limited outreach to market information, pricing trends and experts advise
- Shrinking farmer’s encouragement initiatives; subsidized seedlings, fertilizers, pesticides, equipment and technical assistance

**Quality Quick Fixes**

- Analyze and Improve the farm soil
- Use high yield planting materials
- Prompt irrigation with fertilizer usage
- Regular cleaning and pruning
- Chemical/Organic treatments for diseases
- Stop bush-firing for cleaning purposes
- Upgrade old cashew trees via ‘Top-Work’ technique
- Sun-Dry harvested nuts
- Practice Outturn testing prior to sales



**Our RCN Quality Enhancement Initiatives**

- TIME (Towards Inclusive Markets Everywhere)  
 - Donor Supported Project
- “Industry Alliances Working Together to Empower Poor Rural Women in the Cashew and Shea Sectors”
- Joint grant awarded to African Cashew Alliance, Global Shea Alliance, and Borderless Alliance
- Focus on improving product quality, increasing consumer awareness, and fostering market linkages in an effort to link rural women farmers to international value chains
- Project Life: 2015 – 2017 (3 Yrs.)
- Countries: Benin, Burkina Faso, Cote d'Ivoire, Ghana and Nigeria
- Expected Impact: Create 2,000 new jobs; impact 120,000 small-scale cashew and shea farmers; generate \$3 million in additional income each year



- 2012, TANECU farmer’s union reps (300+ farmer cooperative members) trained in “Outturn Testing” via UNIDO’s 3ADI project in Tanzania
- 2015, Kogi State’s 20+ farmer groups trained via NCAN initiatives
- Since 2010 till date, 15+ assisted cashew processing companies Procurement Managers trained in “Procurement Management practices”
- Since 2011 till date, ACA Seal program supporting processors in quality and traceability practices



**Our RCN Quality Enhancement Initiatives**

- Farmers Trainings Initiative - Private Sector Project
- Project Description: The program seeks to building the capacities of farmers in Ghana and Kenya through trainings on good farming techniques and the facilitation of market linkages with local processors
- Project Life: 2015 – 2017 (3 Yrs.)
- Countries: Ghana and Kenya
- Implementing Partner: Self Help Africa
- Expected impact: Improved income security of 35,000 smallholder farmers



**ACA’s Proposal to Quality Seekers & Partners**

- Strengthened partnership with VINACAS, CEPCI and EMBRAPA for exporting RCN quality improvement as ‘African Quality facilitator’
- Better cooperation with active donor programs across Africa
- Quality Improvement Advocacy initiatives with local governments
- ACA’s Seal program extension to African Cashew Farmers
- Online Assured Quality Market-Place establishment
- Transparent and accessible market information (prices, trends and news)

**THANK YOU!**

**Contact Us:**

**African Cashew Alliance Secretariat**

**Sunil Dahiya**

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 @AfricanCashew  
 facebook.com/africancashewalliance



## Cashew Growing Areas and their respective Codes in Tanzania

Mr Krishnan G Nair, KGN

### POINTS TO PONDER

RCN IMPORTS INDIA (MT) 900,000	EXTRA MOISTURE% 2	MT 18,000	COST (USD) @\$1300 PMT 23,400,000
RCN IMPORTS INDIA (MT) 900,000	DETERIORATION% (2x1.3) 2.6	MT 23,400	COST (USD) @\$1300PMT 30,420,000
RCN IMPORTS INDIA (MT) 900,000	ADMIXTURE % 1	MT 9,000	COST (USD) @\$1300 PMT 11,700,000

H – NEWALA .2  
 I – NEWALA .3

### 3<sup>RD</sup> QUALITY

B – KILWA  
 E – LINDI 1 (COASTAL)

TANGA  
 DSM  
 UNDERGRADE



INTO THIN AIR  
 50,000 MT \$65 million



Cutting Test Result	Break up (gms)	Expected selection/grading results
48lbs (273gms)	270 + 3	41 lbs
48lbs (273gms)	260+13	39 lbs
48lbs (273gms)	250+23	37 lbs



### CROP CONTAMINANTS & NATURALLY OCCURING TOXIC SUBSTANCES

NAME	LIMITS	
AFLATOXIN	0.03 mg/kg	→ CROP CONTAMINANT
AGARIC ACID	100 ppm	NATURALLY OCCURING TOXINS
HYDROCYANIC ACID	5 ppm	
HYPERICINE	1 ppm	
SAFFROLE	10 ppm	

Note : Break up shows good + 1/2 of spotted and immature

### IMPORTER'S IRE

Same Outturn – 48 lbs Difference in value \$175 PMT!



### CASHEW GROWING AREAS AND THEIR RESPECTIVE CODES IN TANZANIA

#### 1<sup>ST</sup> QUALITY

C – TUNDURU  
 D – NACHINGWEA – RWANGWA  
 – LIWALE  
 J – MASSASI I (WITHIN 25 KM RADIUS OF MASSASI)  
 K – MASSASI II (AREA AROUND CHINGGUTWA)  
 L – SONGEA

#### 2<sup>ND</sup> QUALITY

A – MTWARA  
 F – LINDI – S (Inland)  
 G – NEWALA .1

### RAW CASHEW EL DORADO

The outturn of Guinea Bissau  
 The count of Brazil  
 The colour of Benin  
 The smoothness of Maharashtra  
 The uniformity of Indonesia  
 The driage of Tanzania  
 The taste of Goa  
 The availability of Cote d' Ivore  
 All .....

at the price of PEANUTS

THANK YOU ALL FOR YOUR

CO-OPERATION



# ResponsAbility Investments AG

Ms Suhasini Singh, Head Agriculture Investments – S&SE Asia



Financing the Cashew Value-Chain

who we are  
 Leading asset manager in development-related investments



Founded - 2003
2.9 billion USD Assets under Management
11 different funds
Debt and Equity Investments
Investments – 80+ countries
Finance, Agriculture, Energy, Health and Education
5 Offices - Switzerland, France, Peru, Kenya, India

responsAbility Fair agriculture fund  
 Financing agricultural value chains



Investments in more than 40 countries and commodities

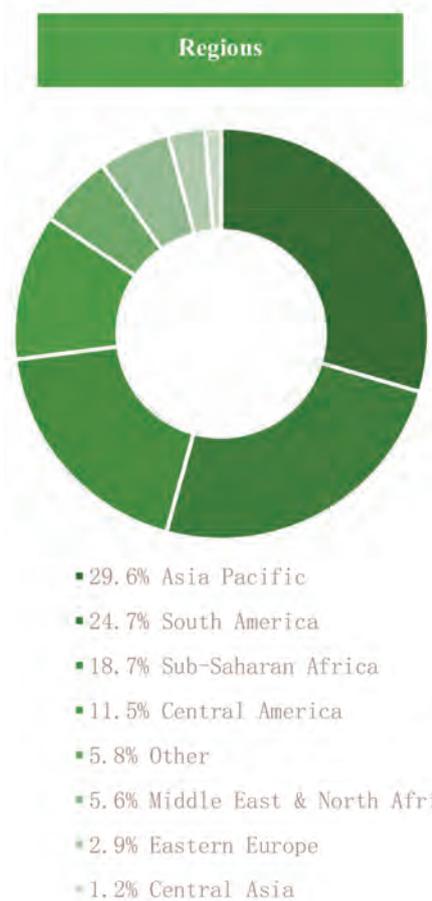
## Asset classes



## Commodities



- 27.4% Coffee
- 20.3% Grains & Seeds
- 19.1% Nuts
- 9.7% Herbs, Spices & Oils
- 9.6% Other
- 7.8% Cocoa
- 6.0% Fruit & Vegetables



\* Source – ACA Annual Report - 2014

**Funding requirements**

Value Chain Actor	Financing Requirements	Available Security
Processors at Origin	<ul style="list-style-type: none"> <li>Pre-harvest financing</li> <li>Inventory financing</li> <li>Post-shipment financing</li> </ul>	<ul style="list-style-type: none"> <li>Inventory</li> <li>Sales Invoices</li> </ul>
Importing Processors	<ul style="list-style-type: none"> <li>Pre-export financing</li> <li>Advance to suppliers</li> <li>Inventory financing</li> <li>Processing</li> <li>Post shipment financing</li> </ul>	<ul style="list-style-type: none"> <li>Sales contracts with buyers</li> <li>Sales invoice</li> </ul>
Traders	<ul style="list-style-type: none"> <li>Advance to suppliers</li> <li>Post shipment financing</li> </ul>	<ul style="list-style-type: none"> <li>Receivables &amp; Advances (Current Assets)</li> <li>Sales Contracts</li> </ul>

**Cashew value chain**



- Total cashew kernel production in 2014 – 629,668 metric tonnes;
- ~ 2.5 million small holder cashew farmers in Africa
- Total cashew kernel exports in 2014 – 437,223 metric tonnes

**Global cashew trade**

- Vietnam and India lead the exports ; USA is the main destination for exports from both countries

**Financing solutions**

**Cashew investments - Africa  
Presence across the main growing regions**



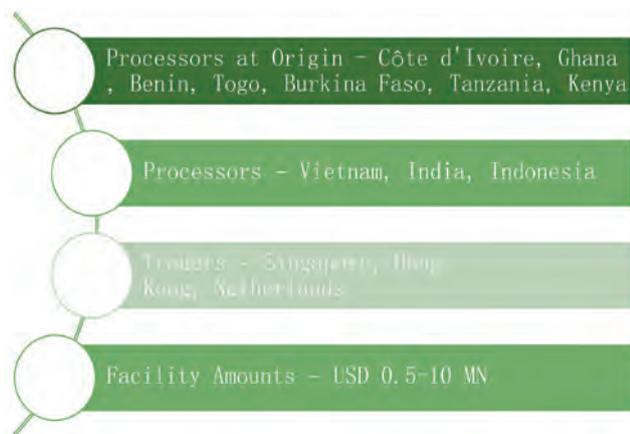
Investments in IVC, Benin, Togo, Ghana, Burkina Faso, Tanzania and Kenya

**cashew investments - asia**



**Cashew exposure**

**7 Countries; 12 Counterparties**



Targeted Average Exposure for 2016 – USD 35 MN

**Types of Financing**

**Working Capital (<1 year)**

- Pre-harvest financing
- Pre-export financing
- Procurement of raw materials

**Long Term (>1year)**

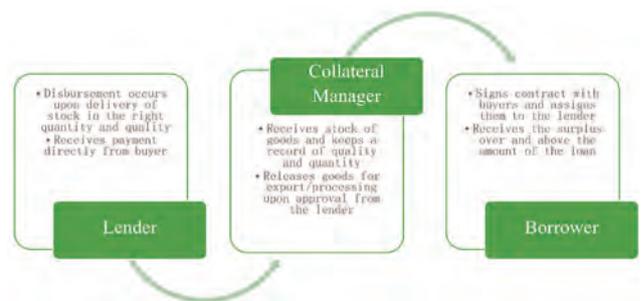
- Investment in Fixed Assets
- Project Finance
- Replanting

**Equity**

- Selective
- (Based on deal-specific needs)

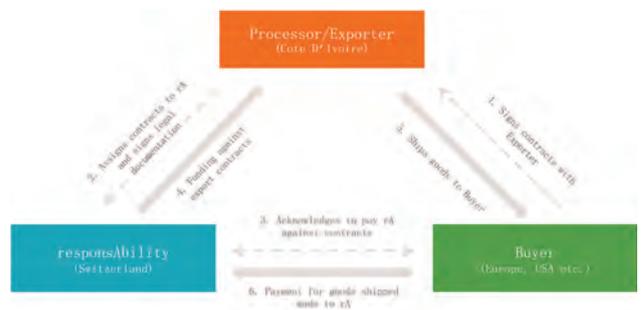
Technical Assistance

**Collateral management agreement**  
 Processor Focused

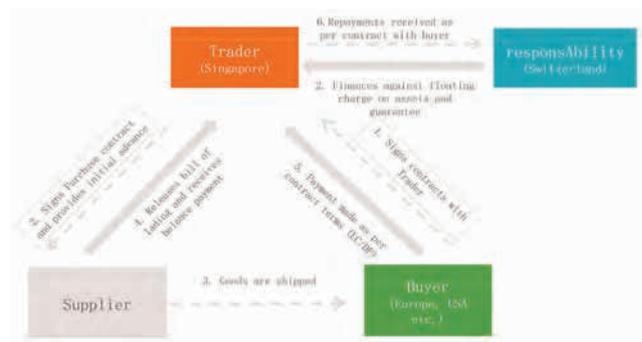


**Assignment of contracts**

**Processor Focused**



**Floating charge + guarantee**



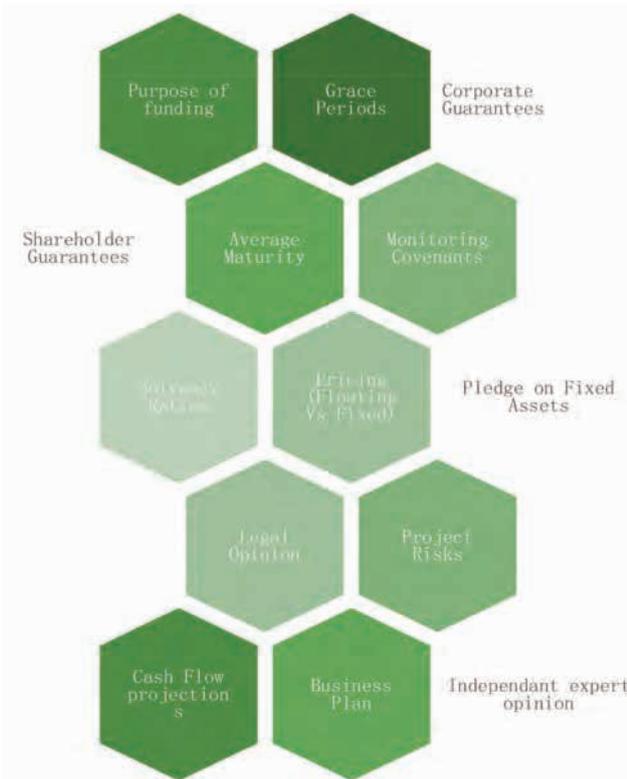
**Long – term debt investments**





**Investment Details**

Purposes: Trade Finance and Fixed Asset financing  
 Amount: EUR 2.7 million  
 Tenor: up to 7 years  
 Security: Contract assignment, Mortgage on Fixed Assets



**Impact**

Employment Generation	600 employed o/w 400 women
Livelihoods	Direct sourcing ensuring higher prices
Community Development	Health and education projects

**responsAbility fair agriculture fund  
Kenya – Macadamia & Cashew Nuts**



**Investment examples**

**responsAbility fair agriculture fund  
Togo – Cashew Nuts**



**Investment Details**

Purposes: Trade Finance  
 Amount: USD 5 million  
 Tenor: 12 months  
 Security: Contract assignment

**Impact**  
 Employment Generation 1,000 employees  
 Livelihoods 100,000 small-holder farmers  
 Environmentally & Socially Responsible

responsAbility fair agriculture fund  
 Vietnam – Macadamia & Cashew Nuts

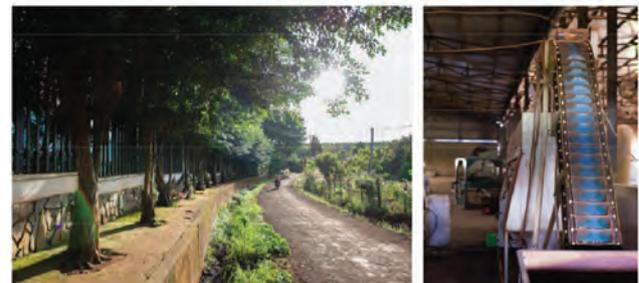


**responsAbility fair agriculture fund**  
**Vietnam & Singapore – Cashew Nuts**



**Investment Details**  
 Purposes: Trade Finance  
 Amount: USD 10 million  
 Tenor: up to 1 year  
 Security: Contract assignment

**Investment Details**  
 Purposes: Trade Finance  
 Amount: USD 3.5 million  
 Tenor: up to 1 year  
 Security: Contract assignment



**Impact**

Employment Generation	3,000 employed on full and part-time
Livelihoods	Direct and Indirect sourcing ensuring higher prices
Environmentally & Socially Responsible	Ethical Practices Agreement and Waste Management Systems

**Impact**

Employment Generation	200 employed o/w 100 women
Environmentally & Socially Responsible	Sourcing Directly from 250 farmers o/w 100 women
Community Development	Community Improvement Projects

**Contact**  
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 Head Agriculture Investments – S&SE Asia  
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 +91 22 3077 0302  
 responsAbility Investments AG  
 www.responsAbility.com  
 Thank you



# Innovative Delivery Methods to Address the Challenges in the Cashew Sector



Ms Rita Weidinger, Executive Director, African Cashew Initiative/ GIZ



## Realities in the African cashew sector



Private and public partners came together in ACi to address the challenges in the sector



## Development Objectives

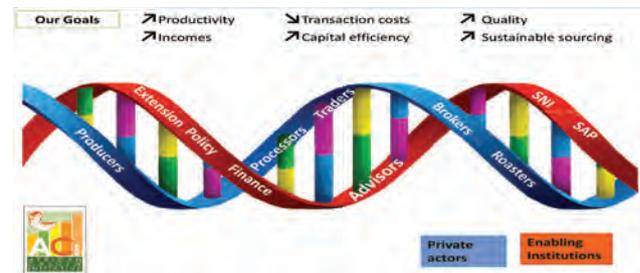
## Industry Objectives



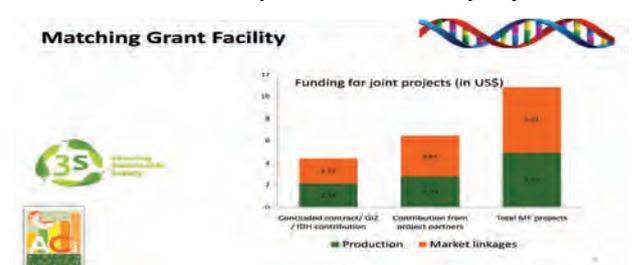
## What does the African Cashew Initiative do?



## Linking actors in the Cashew Supply Chain



## How do we link development and industry objectives?



## How do we increase the knowledge of the actors?

Master Training Programme Video (in french and english)

<https://www.youtube.com/v/llnhHcDbq9A> (english)

<https://www.youtube.com/v/8lwkzrqwSX4> (french)

ACi Website [www.africancashewinitiative.org](http://www.africancashewinitiative.org) ACi Facebook Page [www.facebook.com/africancashewinitiativeACi](http://www.facebook.com/africancashewinitiativeACi) on Youtube [www.youtube.com/AfricanCashewIn](http://www.youtube.com/AfricanCashewIn)

Contact: [rita.weidinger@giz.de](mailto:rita.weidinger@giz.de)

Thank you!

# Environmentally Friendly Ways of Safe Keeping the Cashew Kernels in Transit and in Warehouses

Mr Vasilis Sotiroudas – Food Scientist  
 AgroSpeCom – Eco<sub>2</sub> – Control Union

## Methods for fighting insects



## Gas & Electrical heaters



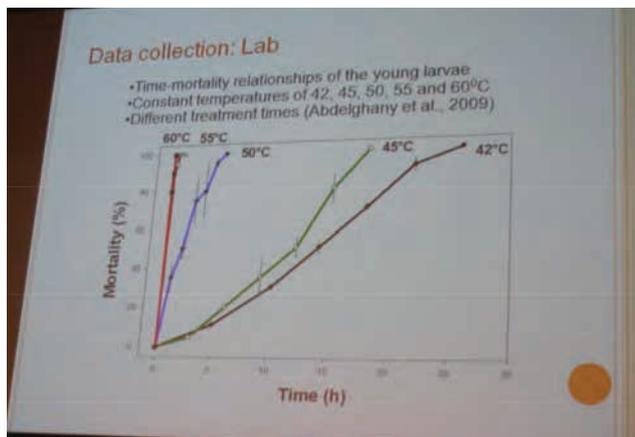
## Intelligent Fumigation Technologies: HEAT

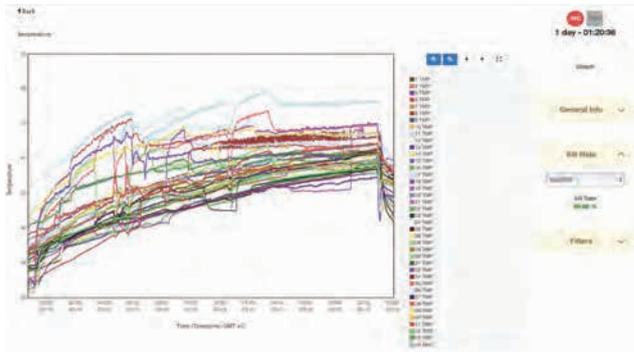


### Target for killing insects: 60C -16 hrs

- Cell membranes “melt”
- Enzyme destruction
- Change in salt balance
- Protein coagulation

## Gas heaters set up





**The most advanced system for heat treatment**

Wireless temperature monitoring  
 Available on smartphone  
 Safe and accurate control of treatment process

AgroSpecCom Heat Treatment Systems

The most advanced system for heat treatment

Wireless temperature monitoring Available on smartphone

Safe and accurate control of treatment process

**Wireless sensors**

Dashboard    Treatments    Facilities    Hardware

General Information

Name	Active	Description	Start At	Resumed At	Stopped At	Actions
Μελιτο Μόδα		Geppet	30/10/2015 22:45:55		30/10/2015 09:36:31	⊞ ⊞
		Hot test	18/09/2015 16:23:35		21/09/2015 01:31:24	⊞ ⊞
		Dispute	18/09/2015 17:11:01		21/09/2015 01:26:44	⊞ ⊞

therminate.com



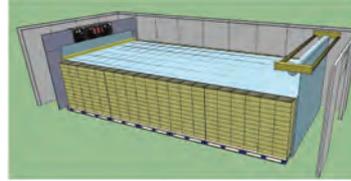
**Controlled Atmosphere in  
 Airtight Chambers**



**Product before and after treatment**



**CA chambers design**



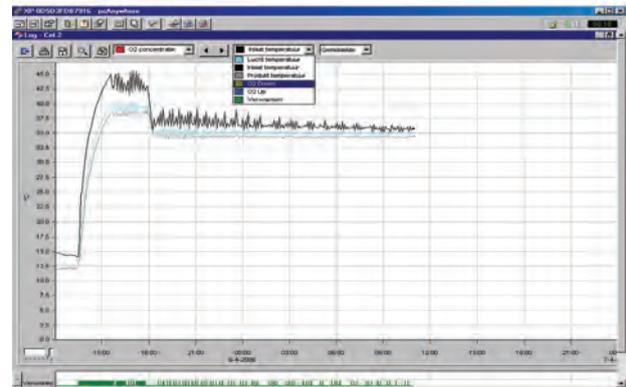
**Principles of the method for Cashew**

**Oryzaephilus surinamensis  
 or  
 Tribolium spp  
 or  
 Cryptolestes spp**

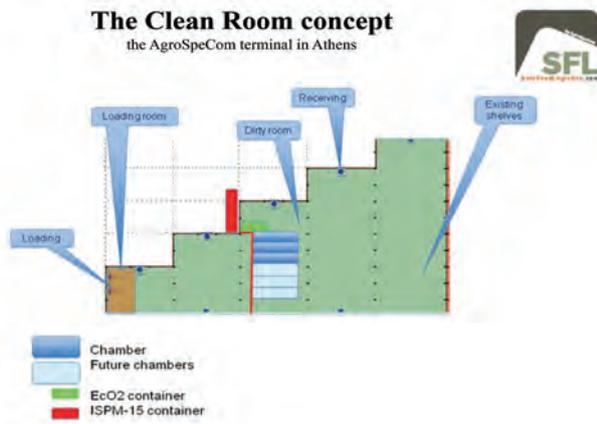


**43C, 1%O<sub>2</sub>, 2 days**

**Controlled Atmosphere:  
 the Eco<sub>2</sub> complete solution**



**The Clean Room concept  
 the AgroSpeCom terminal in Athens**



**Phosphine Monitoring App**

- App specs:**
1. Suggested dosage & Duration
  2. Alarm notifications
  3. Corrective actions
  4. Protocol selection
  5. Kill rates



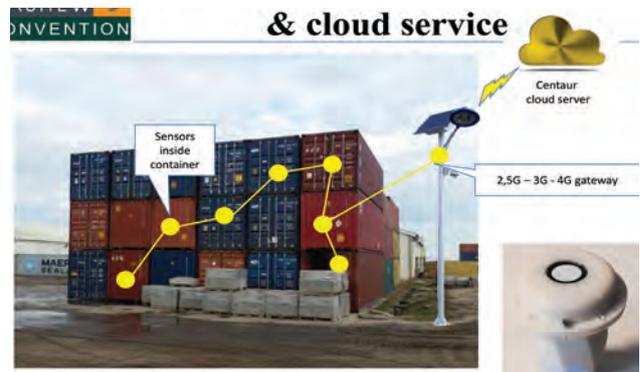
**Precision Phosphine  
 treatment**



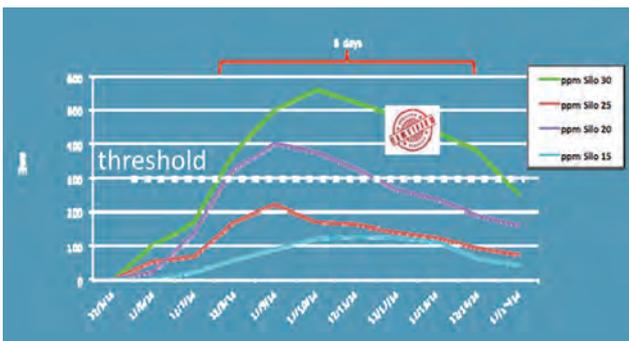
**Gas and Temperature Sensors**



**Wireless signal  
 & cloud service**



**Fumigating with Phosphine: monitoring?**



**Mr Sadanandan . G. Nair, Business Head , Vink Corp**

WCC has been a great platform for showcasing the Cashew trade. Manufacturers are facing a lot of problem due to high pricing and low quality. I think this is a platform where we all can get together, decide on certain norms which have to be followed by all the partners and take it forward

## Filiere Anacarde Ivoirienne: Inovations au Cours Des Trois Dernieres Annees

### Cashew Sector In Cote D'ivoire: Innovations in the Last Three Years



**Malamine Sanago**, Director General, Cotton and Cashew Council

#### INTRODUCTION

##### Objectifs de la réforme de 2013:

- Production et recherche
- Commercialisation
- Transformation locale
- Organisation des acteurs

##### Sector reform occurred in 2013 ;

- Agricultural production and research
- Marketing
- Processing
- Actors Organization

#### PRODUCTION ET RECHERCHE

- Programmes de recherche conduits par les Centres de recherche et les Universités nationales;
- Collaboration avec les institutions de recherche des autres pays producteurs ;
- Dispositif d'encadrement des producteurs d'anacarde (+ de 200 agents déployés);
- Campagnes de sensibilisation sur la qualité à travers les medias (caravanes, films, sketches.....).
- Research programs carried by universities and agronomic research centers;
- Collaboration with other research centers;
- Farmers training program with more than 200 trainers involved;

- Awareness on quality and post-harvest operations;

#### COMMERCIALISATION

- Identification et agrément des acteurs du circuit de la commercialisation;
- Distribution de sacheries en jute;
- Mise en œuvre d'un mécanisme de fixation du prix;
- Institution de documents de transaction et de traçabilité ;
- Mise en œuvre de restrictions et de sanctions.

#### MARKETING

- Identification of all stakeholders ;
- Supplying producers and exporters in jute bags;
- Price control;
- Documents and software for traceability to secure transactions;
- Limitations and penalties for best quality and more transparency

#### Transformation Locale Comme Strategie De Moyen Et Long Termes / Opportunités D'investissement

- Programme d'assistance technique aux unités installées;
- Projet d'accélération de la transformation locale (incitations à l'installation de nouvelles unités);

- Centre des Technologies du Cajou;
- SIETTA.
- Promotion de la consommation locale des produits dérivés.

#### **LOCAL PROCESSING AS MEDIUM AND LONG TERM STRATEGY: INVESTMENT OPPORTUNITIES**

- Technical assistance for processors ;
- PPP program to accelerate local processing;
- Cashew Technologies Center ;
- SIETTA;
- Local consumption promotion.

#### **ORGANISATION DES ACTEURS POUR LA BONNE GOUVERNANCE ET LA DURABILITE**

- Mise en place de Comités villageois de producteurs;
- Identification des coopératives et des producteurs individuels;
- Sensibilisation à la mise en place de l'Interprofession
- Formations;
- Mise en place d'un système ERP pour la gestion intégrée de la filière

#### **BUILD A STRONG ORGANIZATION OF ACTORS FOR GOVERNANCE AND SUSTAINABILITY**

- Set up producers comities in village ;
- Co-operatives and Producers identification;
- Inter-profession awareness;
- Training for co-operatives managers;
- Software to manage the whole sector

#### **RESULTATS/ RESULTS**

- Distribution de plants sélectionnés;
- Elaboration de la carte sanitaire du verger;
- Données fiables sur la commercialisation;
- Gestion informatisée des flux (SIM, SIG, etc.);
- Accroissement de la production (plus de 700 000 tonnes en 2015)
- Amélioration de la qualité;

- Hausse du chiffre d'affaires.
- Availability of reliable data's ;
- Management with software (SIM, SIG);
- Quality of RCN improvement;
- Increase of sales revenues.

#### **MERCI DE VOTRE AIMABLE ATTENTION**

#### **THANKS FOR YOUR ATTENTION**



**Liz Olwadarer, USAID Nigeria, NEXTT Project**

It was great opportunity for everyone to showcase the cashew industry of different locations and different countries under the same roof. It was fantastic, fantabulous and a laudable event which was wonderfully packaged and planned. Great Convention!!



**Mr Ashok Narayanan, Director, ORION Commodities, Vietnam**

WCC is THE platform in my opinion, this year it was a great success with a good number of participation, great panelists, informative sessions and good people in the technical advisory committee who worked very hard , a lot of efforts from the team resulting in a wonderfully planned convention.

# Investment Opportunities in the Cashew Sector in Nigeria

Mr Olusegun Awolowo, Executive Director/CEO

Nigerian Export Promotion Council

## Outline

- Introduction
  - About NEPC
  - Nigeria: Geography and people
  - Nigeria: Economic profile
  - Nigeria Cashew profile
- Why Cashew and opportunities?
- Why Invest in Nigeria
- Conclusion

## About NEPC

The agency of government solely responsible for the promotion of non oil exports

Headquartered in Abuja with 15 Zonal Offices spread across Nigeria

Established in 1976 to promote the growth of non-oil exports and to diversify the Nation's economy

*Main activities – Product development; Trade Information; Market development; Multi-lateral and Bi-lateral Relations; Provision of Incentives; Capacity development*

Export Business...Tomorrow's Business

## Nigeria : Geography and people

Area of 923,768 km squared

Comprised of 36 states and the Federal Capital Territory

Over 500 Languages spoken

Major languages include:

• English, Hausa, Yoruba and Igbo

Largest city Lagos population 13.4 million

Rapidly growing and urbanizing

**170 Million  
 People**

**47% West  
 Africa's  
 population**

Export Business...Tomorrow's Business

## Nigeria: Economic profile

\$510bn GDP - Largest economy in Africa

26th largest economy in the world

Number One oil producer in Africa

14% of GDP is from oil resources

90% of all exports is oil

10% of all exports is non-oil

50% of non-oil exports is made up of agricultural products but there is limited local content addition

23% of the economy is from agriculture

50% of GDP is made up of Services

13% of GDP is from Information and Communication Sector

10% of annual GDP is from manufacturing with 12% labour in the formal sector

## Nigeria Cashew Profile

**10** - among top 10 Raw Cashew nut (RCN) global producing countries

**4<sup>th</sup>** largest producer in Africa after Cote d'Ivoire, Guinea-Bissau and Tanzania

**17** out of 36 States in Nigeria grow cashew in commercial quantities. Grows in almost every state.

**160,000MT** produced in 2015

\$253M earned in 2015

**150,000MT** of RCN exported in 2015

**175,000MT** targeted for 2016

Cashew is one of Nigeria's main agricultural export product

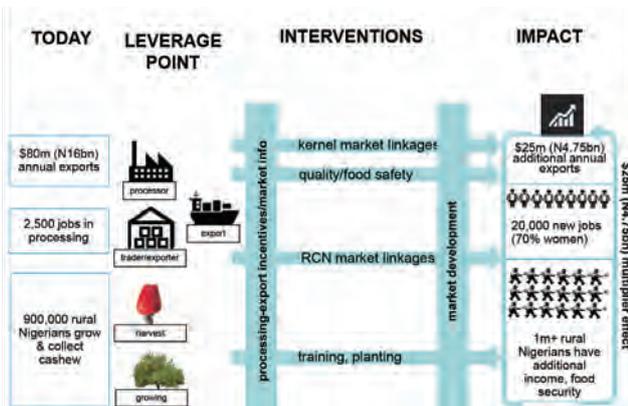
**Statistics**

Cultivated area - 325,000 hectares  
 Average yield per hectare: 0.4MT/ha  
 Commercial farms 0.8-1.2 MT/ha  
 Small holders 0.3-0.5 MT/ha

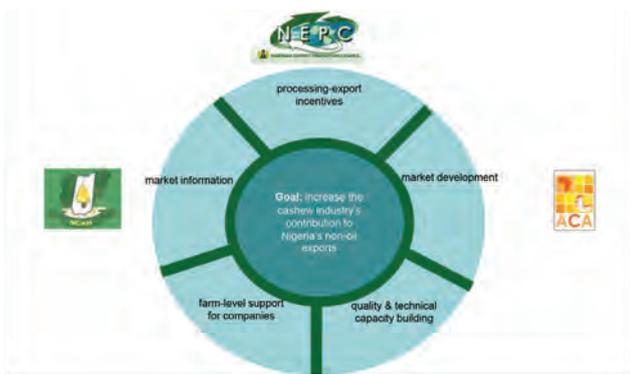
Local processing capacity : 25-30,000MT

**Why Cashew?**

**Why cashew? The cashew industry has several leverage points to grow exports and benefit large numbers of people! Leverage point interventions need to be framed by cross-cutting measures.**



**Cashew Export and Investment Strategy Illustration**



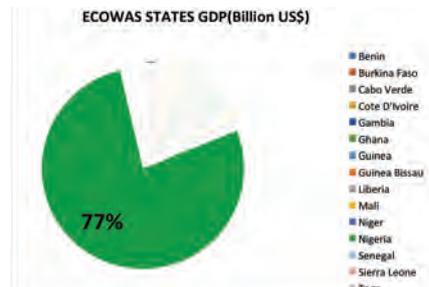
**Investment Opportunities**

Planting	Processing	Skills and Capacity Development
Packaging	Technology	Plant and Machinery

**Why invest in Nigeria?**

**The large market and strong work force**

- Nigeria has a population of about 178 million people (3x the population of South Africa) - 7th largest country in the world with an average age of 18.6 years.
- By 2050 Nigeria will be the 6th largest country in the world.
- 2070 Nigeria will have the world's 3rd largest population (with a population of 431 million) after India and China and above the US.
- A growing middle income which currently stands at 23% - Post rebase GDP per capita estimated at \$1,909 up from \$1,555.
- The population provides a ready market for telecommunications, IT, consumer goods, agriculture, manufacturing, hospitality & entertainment, automobile, construction and housing.



- Nigeria is well placed to exploit the potential offered by the ECOWAS market, which has a population of over 300 million of which Nigeria makes up 60%. Nigeria also accounts for 77% of the ECOWAS GDP and over 50% of the ECOWAS manufacturing capacity.
- In addition West Africa Nigeria also acts as a significant access point to other African Markets.
- Nigeria is also a member of the Developing 8 (D8).



**Conclusion**

- Cashew is a very popular agricultural product consumed across the globe in various forms and a major foreign exchange earner
- Nigeria's largely untapped production capacity for cashew offers potential consistent high returns
- Nigeria is focusing on economic diversification which agriculture as major sector
- Government policies and incentives will support investment in agriculture across value chains
- Dynamic and energetic workforce is available for the industry.

**Export Business...Tomorrow's Business**

Thank you  
[www.nepc.gov.ng](http://www.nepc.gov.ng)  
[info@nepc.gov.ng](mailto:info@nepc.gov.ng); [ceo@nepc.gov.ng](mailto:ceo@nepc.gov.ng)

# Invest in African Cashew Sector - ACA's Investment Promotion Initiative

Dr Babafemi Oyewole, Managing Director, African Cashew Alliance

**Advisory Boards:**



**About African Cashew Alliance (ACA)**

Established in 2006, with the support of founders, i.e. USAID, Development Agencies and Private Sector

An association of African and international businesses with an interest in promoting a globally competitive African cashew industry

Representing all aspects of the cashew value chain including producers, processors, traders, and international buyers

**Mission & Vision Statement**

**Objectives:**

- Increase processing
- Improve competitiveness and sustainability
- Facilitate public-private cooperation

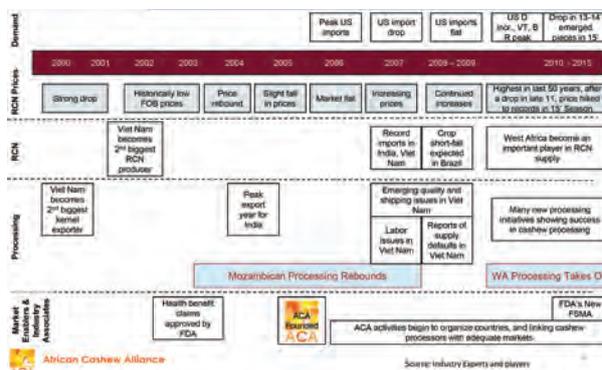


**Vision:** A globally competitive African cashew industry that benefits the value chain – from farmer to consumer.

**Mission:** Support the African cashew industry by

- providing technical assistance and facilitating investments
- promoting market linkages and international standards
- creating a global platform for sharing information and best practices

**15 Yrs. Of Transformation**



**World Cashew Nut Production 2.6m MT, 2015**



Global supply has increased significantly over the last decade: Vietnam has actively targeted the growth of its cashew industry and has become market leader as a result but now facing challenges for further growth. India and Brazil have lost market share, as production grew more slowly. This is in part attributed to competition for agricultural production capacity. Growth in Africa has matched Vietnam's growth in RCN production. Africa represents now 58% share of world annual cashew production.

15+ African countries all together producing 58% of the world raw cashew nut production. West African countries represents 88% while East Africa 18% of total annual African Cashew Crop. Traditionally Africa been exporting RCN to India and now days to Vietnam and Brazil as well. In last decade there has been significant investments taken place in African Cashew industry to explore the cashew potential and for further value addition.

**Global Cashew Production**

**World Cashew Festivals**



Advocacy, Partnership & Institutional Support

**Participation @ Industry Conferences**



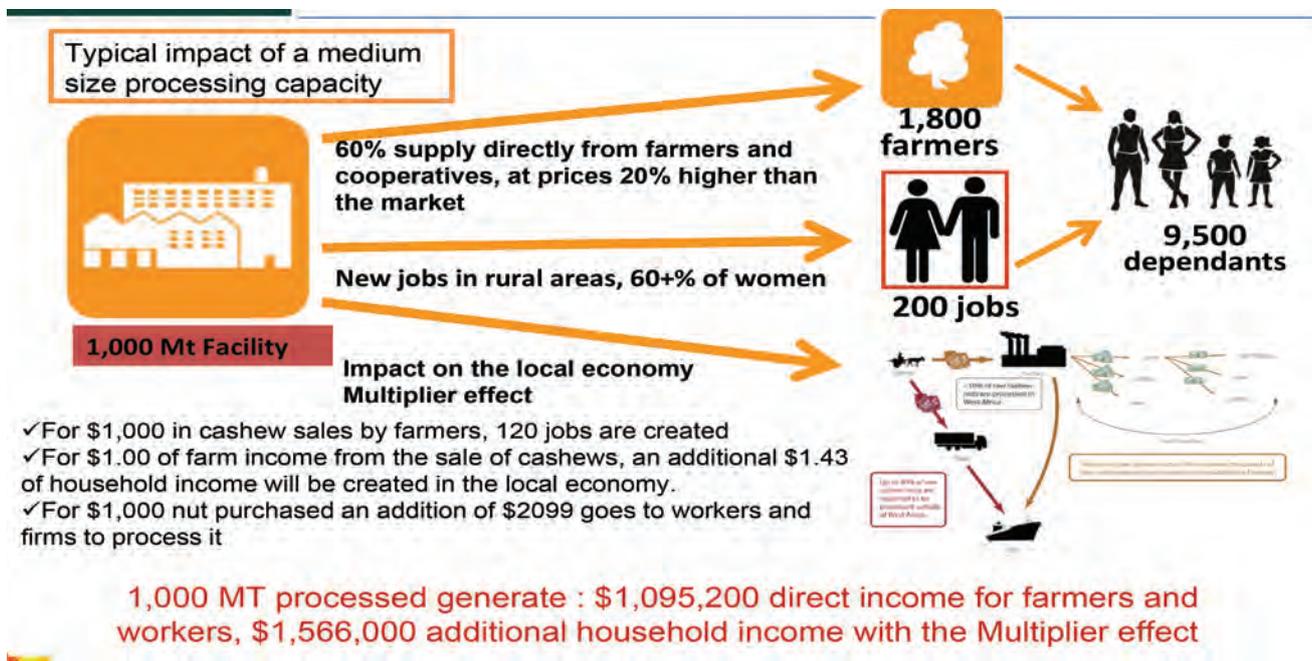
- Participated in 8 annual Peanut & Tree Nut Processor's Association Conferences for "Cashew Advocacy" since 2008 as member
- Long standing member of International Nut Council since 2009 and contributed to 7 AGMs to benefit the African Cashew Industry
- Participated 3-4 times for African Cashew Biz linkage and investment promotion to American and European roasting companies and distributors
- Contributing to GCR – VINACAS event since 2011 as regular attendee and African counter-part with bilateral corporation understanding
- Been contributing since 2015 as regular attendee and African counter-part

**Partnerships To Date:**

- AGA (GC)
- AICAJU (MZ)
- AMEC (ML)
- ANCA (GB)
- APEX (BF)
- CAG (GMB)
- CBT (TZ)
- **VINACAS (VIET)**
- CCA (CDI)
- COFAC (SN)
- CoNEC (BN)
- FENAPAB (BN)
- MOFA (GH)
- NCAN (NG)
- NutPAK (KN)
- RONGEAD (BF)
- **CEPCI (IND)**
- **GCC (Intl)**

**Institutional Support:**

- ✓ **USAID** since 2006
- ✓ **USDA** via IRD since 2010
- ✓ **GIZ** via ACi since 2006
- ✓ **UNIDO** since 2012
- ✓ **AfDB** since 2015
- ✓ **World Bank/IFC** since 2016



**Socio-Eco Impact of Cashew Investments**

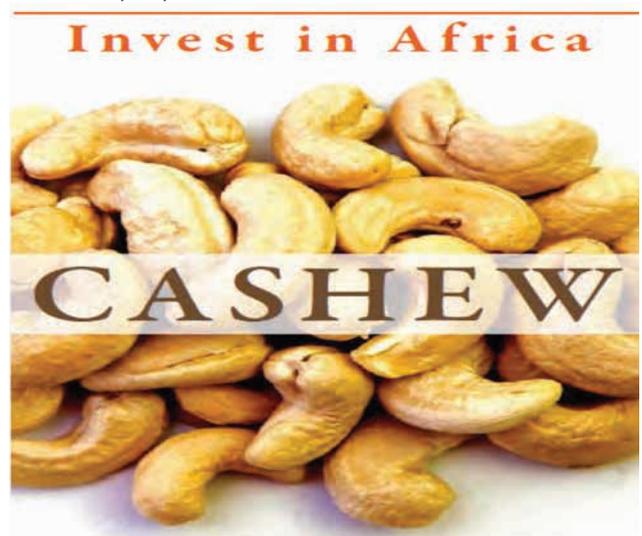
**Cashew Investment Results - Africa**

- 60+ Operating Cashew processors across Africa
- 137,000 MT of RCN processed locally @ 356% growth rate
- Installed capacity of ACA members reached 260,000 MT @ 50% capacity utilization rate
- ACA members invested US\$ 70 million in New Investments and Biz Expansions
- African processing adding household income by US\$ 53 million
- ACA member firms exported value-added kernel worth of US\$ 99 million
- 250+ Containers exported to USA/European markets of ACA's Quality & Food Safety Seal Approved Cashews

**Cashew Biz Opportunities**

- Virgin land of opportunities & enormous potential, e.g. processing, trading, technology-making, & consumption
- Agribusiness is one of the TOP PRIORITY investment area for governments
- Presence of ONE STOP SOLUTION CENTRE for investors

- Supportive Investment (A2F) schemes and banks
- Energetic and young labor availability
- Effective transfer of capital or profits
- Protection against nationalization
- Duties and tax exemption incentives for export- ready companies
- Active market access; EAC, SADC, ECOWAS, UEMOA, AGOA, EU, and China



THANK YOU!



## Recent Initiatives in Senegal and Gambia to maintain RCN Quality



This I Believe will Drop from hereon with a lot Steps being taken By Bissau & Senegal @ the Borders to Stem the RCN flow into Neighboring Countries.

### Retrospection - The Last 20 Years

Production Estimate*(MT)	1996/1998	2005/2006	2015/2016 est
Senegal	3,000	15,000	35,000
The Gambia	500	5,000	15,000
Guinea Bissau	40,000	110,000	200,000
Quality Estimate*	1996/1998	2005/2006	2015/2016 est
Senegal	53lbs/230NC	53lbs/240NC	52lbs/240NC
The Gambia	53lbs/210NC	53lbs/210NC	52lbs/215NC
Guinea Bissau	55lbs/215NC	55lbs/220NC	55lbs/225NC

1. The SEGABI produces around 250,000 of RCN.

Before I continue an Acknowledgment to Mr Krishnan Nair for Coining the Acronym SEGABI, which stands for Senegal Gambia & Bissau, which We use so often. Thank you Mr Krishnan !!!!

I have taken the Liberty of Adding Bissau to the Presentation. Its so Difficult not to talk about Bissau & talk just about Senegal & Gambia.

These three Countries are so linked & connected when it comes to RCN ...

Its one of those Places where you can actually have a Breakfast in Gambia (An Anglophone Country)  
Lunch in Senegal (A francophone Country) & Dinner in Bissau (Which is a Lusophone Country)

In the last 5 years with the exception of 2015 which was last year Gambian Port has been exporting about 65,000 to 75,000 MT

Meaning a Major part of Bissau & Senegal's RCN was being exported Through the port of The Gambia.

### Milestones on Quality Intervention in SEGA

- 1979 Sokone PASA plantations with Selected Varieties
  - Originally a rural employment and income generation project with Anti desertification plans
  - Exchange Crossroads : 1990s. Unification of Farmer and Trader Groups.. They brought Sokone quality to the forefront.
  - SAGIC 2003 : USAIDs Project Senegal. Post Harvest Training for Farmers and Training of Trainers
  - IRD CEP 2009 . Long term Strategy Guided by Private Sector.
  - CAG (Cashew Alliance Gambia) – 2011
1. Project agricole Sénégalaise Allemagne (funded by GTZ)
  2. The SEGA region was Essentially a Groundnut Country & with almost most of the farmers relying on a single crop which was Groundnut – A Crop whose Demand & farm gate Price year on year Falling. International Relief Development & USAID found Raw Cashew Nut to be a Good Alternate Crop to wean Existing Ground nut Farmers. A Crop that was showcased to be stable & Give farmers Year on Year Higher Prices !!!! The Objective of this Project was to Improve on Agricultural Productivity by identifying and promoting best farming practices, including the use of improved cashew varieties, improving raw cashew nut production, strengthening business and fostering marketing skills, among others
  3. The Goal of CAG Was to establish a viable sustainable cashew sector, improving productivity and quality of the cashew nuts, creating jobs, increasing income

and contributing to socio-economic development of The Gambia

#### How Senegal & Gambia developed a Reputation

- A relatively new Origin that had learn from Mistakes done in other Origins.
- An origin that had good Connectivity & Just at the onset of the era of Containerization.
- Drive and involvement of **Private sector**
- **Source of Seed** (Sokone /Bissau)
  - Long term relationship with buyers (Quality Conscious End Users)
- Stress on Jute Bags /**drying yards** / spacious warehouses in infrastructure
- Constant **Training** in Post Harvest Quality by Private sector
- Very little interference by Government - PRO Private sector policy
- NGO's Influence guided by Private Sector initially.
- Starting from scratch . No "unlearning" from Bulk shipment to Containers

#### Quality Challenges

- Huge demand for Raw Nuts.
- Unplanned planting of Seeds.
- Entry of Speculators Fly by Night Operators
- Unscrupulous traders Bringing in Poor Quality Nuts from weak origins
- Traders who do add Water to Increase Weight of cashew & reduce Nut Count.
- Lack of Infrastructure (Warehouses / Drying Yards)
- Use of PP bags
- Irregular shipment schedules/Long Transit times/ Weather changes
- Traditional Exporters by Bulk not understanding Container issues
- Lack of understanding of Quality testing
- Sorted Handpicked and small nuts being reintroduced into the market by Local processors / Exporters

#### Summary to Success in Quality

- Planting of **Suitable varieties**.
  - Proper training on **Maintenance of farms and post harvest care** of the crop.
  - Involvement of the **Private sector**.
  - **Traceability**
  - **Infrastructure**
  - **Long term relationship & Integrity** of Players in the Supply chain.
  - **Synergising efforts** of all actors
  - Understanding **climate change** too is critical as we are slowly seeing a change in weather affecting quality. Thus steps to ensure that early rains or high humidity situations can be handled.
1. The right Varieties Planted. Pruning of Trees at the right time.
  2. Xxxxx
  3. Involvement of the **Private sector Training of trainers** on quality that the markets want.
  4. Food Safety - Region wise understanding of quality through Traceability helps identify good regions and more importantly help identify areas that need corrective assistance.
  5. Infrastructure - Ensuring buyers have the infrastructure to handle quality requirements such as good warehousing with drying yards, pallets, jute bags as well as an understanding of quality.
  6. **Long term RELATIONSHIP** between buyer and seller /Supplier helps too in identifying the best practices suitable for their processing requirements.
  7. Synergizing efforts of all actors esp NGOS helps in channeling the efforts where they are needed.
    1. Ensuring NGOs are not after short term results. Many NGOs are detrimental to RCN quality when they expect to exhibit results in one or two years.



# Cashew and Innovation

Mr Giridhar Prabhu, Achal Industries

## Entrepreneur and Innovation

- Cashew \_ One of the finest but Undocumented Produce out of Innovation
- Comes from Observation and Phenomenal Change
- Need of Consumers Matched by Individuals and Organisations pursuing Ends
- Classical and Modern \_interpretations
- Entrepreneur
- Innovation is a Tool

## Management and Literature

- Global
- Need for Introspection and Study
- What does cashew need?
- Industrial, Commerce, replication
- Plagiarise, Copy, Expand
- Key Words: Resource, maximize or expand yield, Lower to Higher

## Keys

- Should be significant
- Its not a Novelty or a New thing- necessarily
- Examples: How Cashew itself was made available and presented -1920s
- Example: Honey Roasted introduced by Eagle Snacks
- From Metal Cans to Composites to Plastics

## Entrepreneurial

- Transcends boundaries
- Innovation\_ systematic, smart and hard work
- Ideas >
- Can be On an Easy Chair

## Industrial Camps or Ideas Camps

### Industrial Camps

- Problem solving
- Conflict resolution
- Continual Improvement
- Corrections and corrective actions

## Ideas Camps

- Generate and spread Ideas

## Resources

- Individual
- Collective
- Organisational

## Thank You

[ggp@achalcashew.com](mailto:ggp@achalcashew.com)

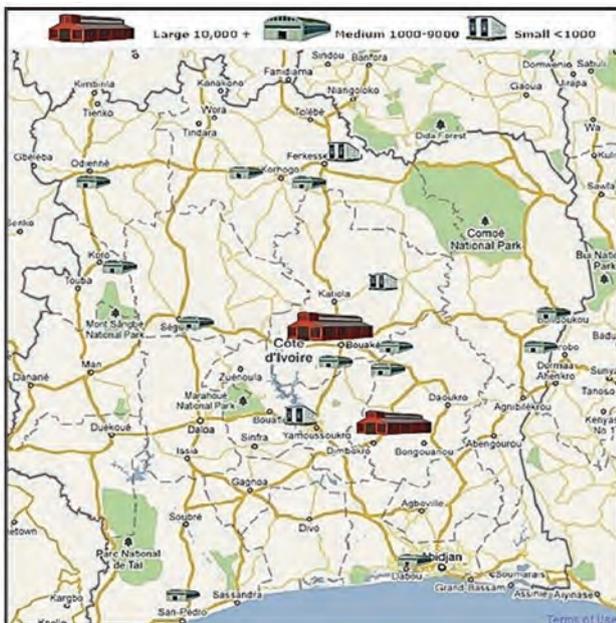


**Mr. Bob Bauer, President, Association of Food Industries, Inc**

It's been a great way to interact with folks in the industry; we hear some concerns about industry issues, and discussions as to what can be done to sort them. There are a lot of folks from Africa here, who are very excited for being new to the industry and are interested in doing the right thing for which it's a great forum. The second year alone, it's been fruitful convention to be attending, very well done

## Welcome to SIETTA-2016

# Salon International Des Technologies De Transformation De L'anacarde - International Cashew Processing Equipment and Technology Show



### SIETTA 2016:

#### A DYNAMIC PRODUCER ORIGIN MEETS WITH MAJOR INTERNATIONAL ACTORS

- 03 days of show & sell exhibition
- 5 000 local visitors
- 500 International Visitors
- About 20 new processing plants projects
- B2B with Investors, sponsors, all stakeholders..
- Showroom for Cashew processing equipment



- **Dynamic Cashew Sector in Cote d'Ivoire:**
  - World Largest RCN producer (>700 000 MT in 2015)
  - Continued strong Growth: +/- 10% p.a.
  - Largest Exporter: 650 000 MT (2015)
- **Strong Opportunities to Develop Local Processing:**
  - 85% of IVC RCN is processed in India & Vietnam
  - Local processing continues to grow: +/- 20 Processing units (<6% of RCN production)
  - Government commitment to develop cashew sector in a large scale (CCA)
  - Incentives for cashew processing industry



# Standardisation of Raw Cashew Nut Quality

## UCP In RCN TRADE- PHASE II



Dr R K Bhooles, Chief Executive- Trades, Prasanthi Cashew Company, Kollam  
 Chairman, Federation of Indian- Cashew Industry (FICI)

### UCP through phases.....

- Defining the terms in Rcn trade
  - General terms
  - Quality terms
  - Trade Terms
- Setting of quality / trade Norms for RCN Trade
  - Standardization ( Quality & Trade Norms)
  - Sampling techniques and procedures
  - Inspection procedures
- Standard Contract form
  - Unique contract form with well defined terms and conditions
  - Brings in more transparency in trade and reduces disputes
- Norms for settlements
  - Addressing variations from contracted terms
  - Well defined procedures for settlements
- Arbitration clause and procedures
  - Addressing Disputes

### Terms defined....

**Standardisation:** Formulation, Publication and implementation of guidelines, rules and specification for common and repeated use.

*The business dictionary*

**Would lead to making mutually consistent decisions.**

**Quality:** A characteristic or feature that someone or something has : something that can be noticed as a part of a person or thing.

- Merriam Webster

### Trade Norms.....

Terms	Definition	Norms
<b>Price:</b>	the quantity of payment or compensation as agreed mutually between the seller and buyer and to be paid by the seller to the buyer in return of goods	Price has to quoted per Metric Ton Currency : Domestic (For domestic Trade) and International currencies (\$, Euro, GBP etc)
<b>Quantity</b>	The numerical value assigned to the quantum of material (RCN) by weight transacted and should be expressed in Metric Tonnes.	5% by Weight tolerance
<b>Shipment Period:</b>	The time interval expressed with reference to Julian Calendar within which the shipment has to be effected and evidenced by the entry in the bill of lading.	15 days – Forward 7 days- Prompt

Terms	Definition	Norms
<b>Payment terms</b>	Time and intervals at which the payments are to be effected by the buyer to the seller	Advance- max 50% Part Payment – max. 95% Full Payment- After Quality & Quantity inspection
<b>Commercial Terms</b>	Terms and conditions on which price and shipments/ deliveries are fixed	All inco terms associated Buyer/Seller nomination of Vessel
<b>Packing</b>	Packing refers to both primary as well as secondary packing of the consignment.	80 Kg (+/- 5Kg) in Jute/ sival Bags. I FCL – 220 bags max.
<b>Referal Point (inspection point)</b>	Refers to the point where the quality/ quantity are applied / inspected	Shp. Qty & Quality Lan. Qty & Quality Shp.Qty & lan. Quality Lan.Qty & Shp. Quantity

**Standardisation of RCN Quality ....**

**Out turn:** Out turn refers to the minimum guaranteed quantity of good cashew kernels (with skin) derived from the cutting test.

For the purpose of calculating the out turn, single spotted nuts should be considered for 50% of the weight. Nuts with multiple spots, immature nuts and nuts with all other type of defects are to be discarded while calculating the out turn.

**Norms:** Out turn should be expressed as either LBS per Bag or Kgs per Bag. A tolerance of 0.5% for variation in the minimum guaranteed out turn should be allowed in case the quality testing is conducted at the destination.

**Count:** Count of RCN is defined as the maximum number of raw cashew nuts in shell of the desired moisture level per Kg.

**Norms:** A tolerance level of 2 Nos. on the count should be allowed in case the testing is conducted at the destination points. However no tolerance should be allowed if the terms are on shipped quality.

**Moisture:** The level of dryness of the RCN and is measured as the percentage of water contents in the raw nut.

The test result of the sample collected and sealed in air tight container/ pouch conducted in the approved laboratory (using toluene test) within three days of sampling should be taken for arriving at results.

In case of moisture testing using moisture meter, if so agreed between the buyer and the seller, the average reading obtained in 5 consecutive tests should be obtained to arrive at the moisture level of the RCN. Nail marking tests and rattling sound tests can not be considered for arriving at the moisture levels.

**Norms:** The maximum moisture level at the designated point should not exceed 8% by weight.

**Foreign Matter:** All materials other than raw cashew nut in shell in the consignment is considered as foreign matter. Even the residues of the cashew apple in the shell is to be considered as foreign matter.

Foreign matter includes stones, dirt, glass, metal, straw, sticks, plastic, hair, paper, and threads etc. They are separated and the % is calculated.

**Norms :** Foreign matter should not exceed 2 % by weight of the total consignment.

**Defective Nuts .....**

**Rotten cashew-** Any decayed or rot spotted cashews .

**Void-** Cashew nuts without kernel (empty side) .

**Immature-** Kernels which are under developed and do not have the characteristic shape of a cashew kernel .

**Insect infested-** Cashew nut kernels visibly damaged from live or dead insect, mites in any stage of development, insect excrete or fragments, boring, cast larval casings etc.

**Shriveled-** Shriveled is complete withering of the kernels that distorts its characteristic shape. Such kernels are separated by visual evaluation

**Spotted-** Dry the cashew kernels at 105°C for 2 hours and remove testa. Black and brown spotted kernels are separated by visual evaluation

**Oil stained-** Oil stained kernels .The % by weight is calculated For all calculations, the % by weight is taken to arrive at results.

**Total Defects:** Total defects refers to the percentage of all defective materials in the raw nuts supplied (foreign matter, void nuts, rotten nuts etc..) by weight present in the sample drawn. The weight of foreign matter is also to be included while calculating the total defects.

**Norms:** Total defects should not exceed 5% by weight .

**Sampling....**

**Sample Size :**

Less Than 15 Bags- full	101 – 200 bags – 20%
16-50 bags -40%	201-500 bags – 15%
51-100 bags – 30%	Above 501 Bags – 10%

**Method :**

Lot to be segregated into sound bags, wet/damaged bags and scooping separately.

Samples to be taken from all three lots on the basis of sample size mentioned here above.

In case of discharge from the container, sequential random sampling method to be adopted.

In case of bulk lot Sampling can be done by adopting the distribution pattern for the selection of bags from the lot using the English alphabetic letters such as 'W', 'N', and 'H', which will cover the representative portion of the sample bags.

In case of bulk lot, the maximum size of a lot should not exceed 100 M.Tonnes.

**Procedure :**

The quantity of nuts taken in the entire batch is scraped upon a flat area, considering as mother sample. Then samples are prepared by quarter method and subjected to analysis.

A 5 kg sample is drawn from the above. This is thoroughly mixed, packed and sealed in 5 packets of 1 kg each.

One packet each for buyer and seller and three packets for Analysis. The average out turn and count of the three values are taken.

In case of variation (between the high and low values) of Out turn of 3 packets by more than 2% of the lower value, the buyer's and seller's sample is also tested and the average out turn and count is taken for the total 5 samples. If the variation between the high and low values of the five samples analysed are more than 3% of the low value, the samples are to be discarded and fresh sampling to be done.

**Limitations....**

The specifications and norms mentioned here are the extracts of the draft formed after preliminary discussions and study.

This has to be further circulated to all members, other cashew related associations and organisations across the world.

After critical analysis and discussions with all experts in

the cashew field, the specifications and norms are to be finalised.

Further criteria if any has also to be included.

**Appeal ....**

This draft is submitted to this august gathering here for further discussions and critical analysis. Together, let us streamline the World RCN trade for the benefit of the Industry.



**Mr Jim Fitzpatrick, Ingredient Sourcing Solutions**

I see good exchange of views, some of the gaps in the market information which have been for so long in the industry

being addressed, a positive outlook particularly in discussion on the improvement of Quality of the RCN. Quite an interesting discussions on advancement in shelling knowledge. I think we need more transparency, better dialog, better communication and an event like this can only assist in all three of this. As we walk away, we have to make sure to take the messages that we have learnt and we need to follow up on these in our day to day business activities. In a way it's up to you.. The cashew info team to continue your good work and have timely reminders.

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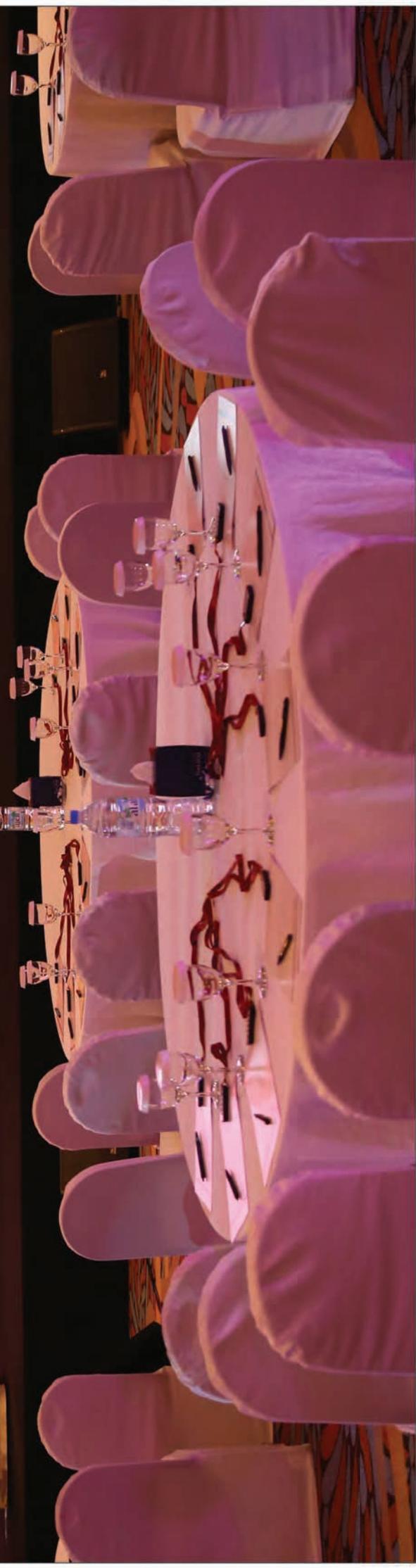
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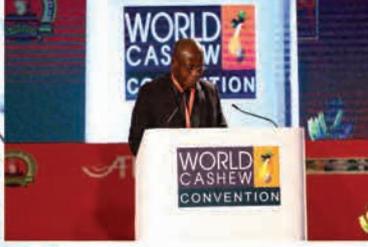
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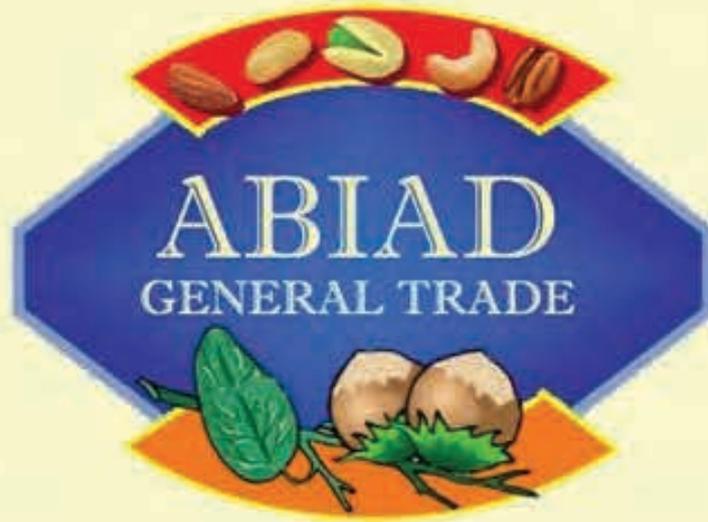
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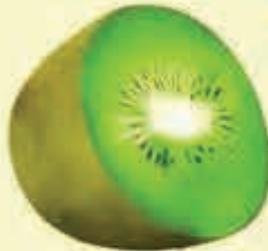
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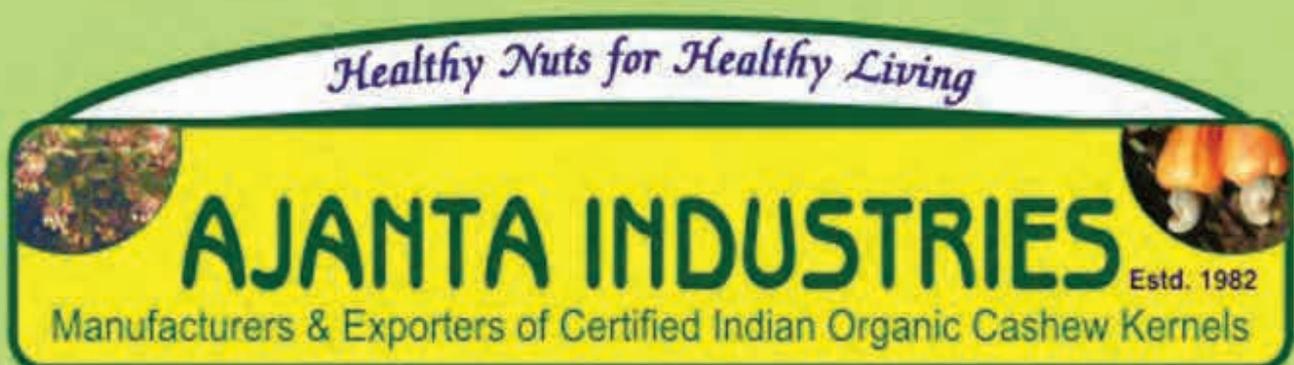
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