

#### **RE-THINKING PROCESSING IN AFRICA**



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STATE OF THE ART INTEGRATED CASHEW PROCESSING PLANT BOHICON, REPUBLIC OF BENIN

#### **CASHEW PRODUCTS**

**EXPORT CASHEW WHOLES EXPORT CASHEW PIECES** 

#### **CNSL PRODUCTS**

EXPORT CNSL OIL IN FLEXI TANK
DE-OILED CASHEW SHELL CAKE

#### OTHER AGRIC PRODUCTS

EXPORT SHEA BUTTER
REFINED COTTON SEED OIL
REFINED SOYA OIL
COTTON DOC/PILLETS/HULL
SOYA/SHEA DOC



#### Why cashew processing in Africa is a logical investment in long term?

- 1. Above 50% of global crop from Africa
- 2. Continual growth of crop size
- 3. Synergy with other cash crops
- 4. Pressure on Africa for industrial promotion
- 5. Acceptability of African Kernel at US/EU
- 6.Traceability edge than India & Vietnam
- 7.Improvement in infrastructure & Policies
- 8. Improved technology & African adoptability
- 9. Improved banking structure
- 💆 0. Increased process cost & tax in India.

# Expectations by new investor from local authorities in Africa for new investment establishment and successful operations.

- Cashew specific wage structure like Asia
- Preferential RCN buying
- Secured low interest financing
- Incentives for Cashew Kernel Exports
- Import duty exemption for Capital goods/PM
- Incentive for skill development program
- Special incentive for 1000+ employment
- Restrictions for mere RCN trade





Careful methodology for new investment realization: (through selection of suitable factory location, scale and technology makes processing battle easier.)

Factory location : Crop Vs Convenience?

Scale(5-20KTPM): Phased & Integrated plants

Technology : Tailor made

Machinery : Turnkey solutions

Design : Linear flow HACCP Based

Operations Plan : Multi level risk mitigation

Site Selection : Plant design specific

Port access
 High accessibility

External Pest : Risk assessment



Careful methodology for new investment:

Manpower : Process Experts/Technical

Worker Transport : Bare minimal

Shelling : 90%Wholes

Peeling : 60% FP Wholes

Packable : 70%

Worker per bag : < 2</li>

• RM to FG : < 9 days

Entry& Exit : Restricted entry

Filling Centre : Double door entry

Manual Work Area : Sweat control

Work Culture : Urban & rural combined

## SHELLING LINES





### SHELLING AREA





## PEELING AREA





# PEELING&GRADING AREA A NEW VISION FOR PARTNERSHIPS & INVESTMENTS 11\*







## PACKING LINE







# What are the challenges of by-product recovery from cashew agro-waste and appropriate technique and market for them?

- 1. Toughest & nightmare in African Cashew Process
- 2. Africa's major loss & Asia's gain (>\$70PMT)
- 3. CNSL Plant is first step forward
- 4. De-oiled cake as safe agro fuel
- 5. Briquetting concept (+Cal-Value)
- 6. Gasifier for clean energy
- 7. Charcoal preparation
- 8. BEP is tough to reach at current status
- 9. Global oil prices also impacting the CNSL
- 10. Out-of-box thinking required to see it as Profit centre

## **CNSL PLANT**





# What an Africa based processor could learn from Indian and Vietnamese cashew processors for optimal quality and profitably?

- African viability issues have a shadow on India.
- Vietnam manages with Govt Policies & scalability
   Asia has an edge, mainly due to...
- Multi origin vs single origin(Tech/Fin/Traceability)
- Productivity based wage schedules
- Quantity game with low margins PMT
- Excellent recovery for pcs/reject/husk/shell(\$100)
- Vietnam's dominance in kernel market
- Very low processing cost of (\$200+ than Africa)
- Quick automation & technology replacement

Why only 'commercial competitiveness' is not just enough today while social, environmental and food safety related competiveness becoming market requirement, how to cop-up?

- 1.Plant design & flow is top most (I, L, T, U, Y, Z etc..)
- 2. Prefer HACCP/GFSI based project design
- 3. Fine tune based on local culture(U/T/W/C)
- 4. Robust design of toilets & canteen
- 5. Change rooms/ hand& leg wash/crech/Health centre etc...
- 6. Arrest child labour 100%
- 6. Section wise uniforms
- 7. Fumigation mandatory
- 8. Implement GMP, HACCP, GFSI in phases
- 9. Update village elders on global trends on food safety
- 10. Robust foreign matter control mechanism



#### AFRICAN PROCESSING IS TOUGH & CHALLENGING, EXPOSED TO RISK.

#### AND VIABLE WITH SUSTAINABLE MFG & BUSINESS TECHNIQUES







