West African Cashew Sector Study: Supply-chain Analysis and Needs Assessment

by David Williams
5 April, 2005
Agenda

• Introduction

• Global industry context

• Kernel market standards

• Intervention identification
Study context and methodology

Background

- WATH/USAID, within AGOA Export Business Development Program, contracted TNS to perform study West African cashew industry study

Scope

- **Geographic**: West African cashew producing countries, focusing on the major producing countries of Guinea-Bissau, Benin and Nigeria, as well as a review of Ivory Coast and smaller producers (eg. Ghana and Senegal)
- **Industry**: entire value chain with particular focus on capabilities for processing and marketing of cashew kernels for/to markets in USA and Europe

Objectives

- Assess current West African cashew kernel processing and marketing capabilities for serving markets of USA and Europe
- Assess effectiveness and efficiency of cashew industry value chain within the region
- Develop and rank potential strategies for targeted WATH interventions, including list of candidates for possible strategic partnerships

Methodology

- Primary research regional visit (Nigeria, Benin, Senegal, Guinea-Bissau, Ghana)
- Primary research telephone interviews (Above countries and Ivory Coast)
- Secondary research
## Executive summary

### Global market
- Strong forecast growth in cashew kernel volumes with modest increase expected in prices
- India dominates production and processing, being supplied by African producers
- West Africa only processes only 1% of what it produces

### Kernel market standards
- Standards either relate to cashew kernel output or production process
- The key process standard of HACCP is not yet implemented in West Africa, however exports to the USA and Europe still occur

### Potential interventions
- Raw cashew nut (RCN) production
- Kernel processing/marketing
- Enabling environment
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Forecast growth for the import of cashews is strong, with a 2004 World Bank report citing a “shortage of kernels”
Kernel prices are near the middle of the roughly 10 year global price cycle, indicating near term modest price growth.

**Price cycle drivers**
- Final consumption
- Processing capacity in kernel exporting countries of India, Brazil and Vietnam
- Market manipulation by large buyers and brokers

**Price decline 1999-2001**
- Excess processing capacity in Vietnam and India

**Expected 5 year price trend**
- Expected modest increase in price owing to strong demand and fall in new plant investment in India and Vietnam (~3% pa)

Tanzania is a relatively small player compared to India which dominates production and processing.

- **Raw nut production**
  - East Africa
  - Brazil
  - Vietnam
  - West Africa
  - India

- **Processing into kernels**
  - West Africa
  - East Africa
  - Brazil
  - Vietnam

- **Consumption of kernels**
  - Middle East
  - East Asia
  - Western Europe
  - India
  - North America

- **Output**
  - 1,392,000MT
  - Raw cashew nut is harvested annually from cashew tree
  - Cashew farmers are typically small holders

- **Processing**
  - 287,000
  - Basic processing of raw nuts into kernels (traditional, Indian, mechanized)
  - Optional secondary processing to roast and flavour

- **Consumption**
  - 287,000
  - 26+ different kernel grades
  - High grades consumed as whole nut snack
  - Low grades used in food production

African small holder producers supply Indian cashew processing

Cashew nut production vs. processing (MT 000s)

- **Production**
- **Processed output**

<table>
<thead>
<tr>
<th>Region</th>
<th>Production</th>
<th>Processed Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>220</td>
<td>250</td>
</tr>
<tr>
<td>Brazil</td>
<td>200</td>
<td>0</td>
</tr>
<tr>
<td>East Africa</td>
<td>151</td>
<td>25 (17%)</td>
</tr>
<tr>
<td>West Africa</td>
<td>356</td>
<td>5 (1%)</td>
</tr>
</tbody>
</table>

Current industry structure ‘status quo’ risks West African production and forgoes benefits from processing

- 98% of potential cashew export earnings from West Africa at risk from import substitution in India
  - India is increasing domestic cashew production in line with stated aim to reduce reliance on foreign cashew supplies
  - Important cash income for over 2 million small holders cashew farmers
  - Important source of export earnings (98% in Guinea-Bissau)

- Forgone value of domestic processing*
  - If East African target of 17% of total production processed in region is reached:
    - 10,000 direct jobs paying USD 9M wages
    - USD 50M processing revenues
    - Domestic demand created for 270,000 farmers
    - Up to 50% increase in export earnings from kernel sold
    - Unquantified further economic stimulus

Assumes target of 17% of production (current East African proportion), with incremental processing following the Mozambican TechnoServe model of medium-scale, manual shelling technology.

Sources: TechnoServe analysis
The impact from a single processing unit of 1,000 MT annual raw nut capacity in Mozambique

**Impact for employees**

- **200 jobs** created
- Typically >50% female labor force
- Employment conditions include:
  - Minimum wage salary
  - 1 month paid holiday
  - All insurance, health and pension entitlements
  - 1 meal per day
  - Child care facility

**Impact for smallholder farmers**

- **Reliable direct procurement from ~10,000 farmers**, avoiding often exploitative ‘middleman’ agents and loss of market to Indian production
- **Increased payment for quality raw nuts** (exporters mix quality and underpay for good nuts)
- **Outgrowing extension program**
  - Provision of seedlings from processor-owned nursery farm
  - Farm management training
  - Input supply at reduced cost

**Impact for community and economy**

- **50% increase export earnings** from cashew crop owing to processing
- Essential infrastructure investment (eg. Roads, airstrip)
- Specific processor-funded projects (eg. Schools, healthcare)
- Employment creation for support services (construction, maintenance, transport etc)
- Stimulus to community economy from spending of employee wages, creating local goods markets
- Job creation in rural community, reducing HIV/AIDS risk from employment-driven migration
- Additional industry creation for factory by-products (eg. CNSL processing)

Single factory: 1,000MT pa raw nut capacity

**Year 1**
- Capital cost ~US$150,000
- Working capital ~US$250,000

Impact for employees:
- 200 jobs created
- Typically >50% female labor force
- Employment conditions include:
  - Minimum wage salary
  - 1 month paid holiday
  - All insurance, health and pension entitlements
  - 1 meal per day
  - Child care facility

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International standards for cashew processing either relate to product standards or process standards

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Process</th>
</tr>
</thead>
</table>
| • Classification of kernel products by various qualities (e.g. Size, colour, moisture, oil content, broken/whole etc)  
  - There are two classification systems: Indian/(African) and Brazilian  
  - UN has endorsed a standard for comparing systems (1999)  
  - Kernel prices are determined by reference to these systems  
• Final/consumer product labelling and packaging standards, different in each market  
  - EU: Directive 2000/13/EC  | • General application standards  
  - FAO introduced HACCP (Hazard Assessment and Critical Control Points) is the international benchmark concerning cashew nut industry  
  - Adopted by FDA and EU but the necessity of HACCP practices and/or certification is debated  
  - Environmental standards ISO14000 concerning pesticides, shells  
• Specialist standards and certifications for access to niche/premium markets  
  - Fair trade, e.g. Fairtrade Labelling Organisations International  
  - Organic standards and certification, e.g. Organic Crop Improvement Association International, Inc. certified Guinea-Bissau cashew producers |
HACCP principles in general, and their application to primary production

EU guide to Regulation (EC) no. 852/2004 … on the hygiene of food stuffs

- “These principles prescribe a certain number of requirements to be met throughout the cycle of production, processing and distribution in order to permit, via hazard analysis, identification of the critical points which need to be kept under control in order to guarantee food safety:
  - identify any hazards that must be prevented, eliminated or reduced to acceptable levels;
  - identify the critical control points at the step or steps at which control is essential;
  - establish critical limits beyond which intervention is necessary;
  - establish and implement effective monitoring procedures at critical control points;
  - establish corrective actions when monitoring indicates that a critical control point is not under control;
  - implement own-check procedures to verify whether the measures adopted are working effectively;
  - keep records to demonstrate the effective application of these measures and to facilitate official controls by the competent authority.”

Paragraph (11) preamble: “The application of HACCP principles to primary production is not yet generally feasible. However, guides to good practice should encourage the use of appropriate hygiene practices at farm level.”
Examples of HACCP principles applied to cashew processing in Mozambique
## Is HACCP demanded by the USA and European markets?

<table>
<thead>
<tr>
<th>Profile</th>
<th>Opinion of HACCP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Olam Industries</strong></td>
<td>• Introduced HACCP practices in factories in Africa with planned certification of all factories during the next 1-2 years</td>
</tr>
<tr>
<td>• World’s largest buyers of raw cashew nut</td>
<td>• Currently sees no premium for HACCP certification in the USA or Europe (but more important for Europe)</td>
</tr>
<tr>
<td>• Processes cashew in 7 origins (including West and East Africa)</td>
<td>• Believes that premium will develop in 3-4 years</td>
</tr>
<tr>
<td>• Among world’s largest brokers of cashew kernel (#2 broker of African kernels)</td>
<td>• Believes that all factories must at least demonstrate that they are taking measures to implement HACC P standards</td>
</tr>
<tr>
<td><strong>Global Trading and agency bv</strong></td>
<td>• Introducing HACCP standards with Swiss development funding</td>
</tr>
<tr>
<td>• #1 broker of African kernels</td>
<td>• Will not recommend certification until there is a perceptible premium</td>
</tr>
<tr>
<td>• Sells primarily to Europe and South Africa</td>
<td>• HACCP important for processors in non-traditional geographies to give buyers confidence if they have no previous experience with the geography (especially European buyers)</td>
</tr>
<tr>
<td><strong>TechnoServe</strong></td>
<td></td>
</tr>
<tr>
<td>• Assisted 14 entrepreneurs to establish the largest kernel processing organization in Africa (Mozambique)</td>
<td></td>
</tr>
<tr>
<td><strong>Richard Franco</strong></td>
<td></td>
</tr>
<tr>
<td>• #1 global broker of cashew kernel</td>
<td></td>
</tr>
<tr>
<td>• #1 broker to USA</td>
<td></td>
</tr>
<tr>
<td><strong>Consensus</strong></td>
<td></td>
</tr>
<tr>
<td>• HACCP is growing in importance but currently</td>
<td></td>
</tr>
<tr>
<td>– HACCP is more important in Europe than in other markets</td>
<td></td>
</tr>
<tr>
<td>– Export occurs to both Europe and USA without HACCP standards being in place</td>
<td></td>
</tr>
<tr>
<td>– There appears to be no premium for actual HACCP certification, but there may be a risk associated with not following HACCP practices</td>
<td></td>
</tr>
</tbody>
</table>
Some West African processors export to the USA and Europe while being far from ‘HACCP standard’

Nigerian processor exporting to USA (via family contact)

Reasonable quality output...  ...but poor quality process
Examples of unacceptable levels of hazards in West African processing

Nigeria: unhygienic kernel storage awaiting peeling stage

Benin: storing kernel testa within factory building (should be disposed of immediately after removal)

Guinea-Bissau: kernel packaging without introducing an inert gas
Nigerian and Beninese final products, with output and packaging being short of USA and European demands

Nigerian: dry texture and scorched flavour

Beninese: Boulamb has quality packaging
A 10% premium can be expected for organically certified cashews, while the premium for Fair Trade depends on individual contracts.

<table>
<thead>
<tr>
<th></th>
<th>Fair Trade</th>
<th>Organic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olam Industries</td>
<td>• Are not involved in Fair Trade</td>
<td>• Are observing premium of ~10%</td>
</tr>
<tr>
<td></td>
<td>• Fair Trade premium depends on the negotiated price relative to market price</td>
<td>• Have certified farmers in Tanzania for organic production</td>
</tr>
<tr>
<td></td>
<td>– Eg. Current market price is $2.45/lb of W320, while a Global Trading Fair Trade price was negotiated at $2.25/lb 1.5 years ago</td>
<td>• Believes that all factories must at least demonstrate that they are taking measures to implement HACCP standards</td>
</tr>
<tr>
<td>Global Trading and agency bv</td>
<td>• Are not involved in Fair Trade</td>
<td>• Are observing premium of ~10%</td>
</tr>
<tr>
<td></td>
<td>• Require cost-benefit analysis and dependent on individually negotiated contract</td>
<td>• Expect premium to decline with increasing supply of organic cashews</td>
</tr>
<tr>
<td>Richard Franco Agency</td>
<td>• Are not involved in Fair Trade</td>
<td>• Suitable for West African processors owing to lack of pests in region that require inorganic treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Requires cost-benefit analysis</td>
</tr>
</tbody>
</table>
Potential candidates for WATH market linkage assistance, with profiles that may be appropriate for access to niche markets in USA (Fair Trade and organic)

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation</th>
<th>Processing activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>AFOKANTAN BENIN CASHEW</td>
<td>Bulk</td>
</tr>
<tr>
<td></td>
<td>AFETRACA (Boulamb)</td>
<td>Final product</td>
</tr>
<tr>
<td></td>
<td>Pride of Benin Association</td>
<td>Bulk &amp; final product</td>
</tr>
<tr>
<td>Senegal</td>
<td>ATAC (EWW)</td>
<td>Bulk &amp; final product</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>Djonje</td>
<td>Bulk &amp; final product</td>
</tr>
<tr>
<td></td>
<td>Caju Criole</td>
<td>Final product</td>
</tr>
</tbody>
</table>

Further investigation required to assess viability of these processors accessing niche USA markets
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Processor profitability comparison – key assumptions

Key assumptions to create approximate ‘like-for-like’ comparison between cashew nut processing profitability across countries

- Standalone processing factory, ie. without upstream (production/farming) or downstream (kernel marketing / secondary processing) integration
- Scale greater than 500MT of raw cashew nut processed per annum
- ‘Indian semi-mechanical’ process technology, with manual cracking machinery either designed in India, Vietnam, Brazil or in Africa
- Observed ‘best practice’ (ie. most profitable, highest productivity) example is used for each country surveyed
- Kernel sales price is approximate observed price for African kernels, adjusted for quality of output
- Profitability benchmarks outside West African region
  - African best practice: Mozambique
  - World best practice: India

Sources: TechnoServe analysis
## Processor profitability comparison – using a ‘best practice standalone’ model from each country

<table>
<thead>
<tr>
<th>Price/revenue</th>
<th>Ivory Coast</th>
<th>Guin.-Bissau</th>
<th>Benin</th>
<th>Nigeria</th>
<th>India</th>
<th>Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole kernel yield (% of output)</td>
<td>75%</td>
<td>70%</td>
<td>75%</td>
<td>70%</td>
<td>84%</td>
<td>75%</td>
</tr>
<tr>
<td>Relative proportion W320 grade*</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>10% 'rebate' (Nigeria only)**</td>
<td>0.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C&amp;F price (USD/kg)</td>
<td>4.96</td>
<td>4.70</td>
<td>4.96</td>
<td>4.86</td>
<td>5.43</td>
<td>4.96</td>
</tr>
</tbody>
</table>

### RCN*** cost

| Kernel recovery (% of RCN) | 21% | 24% | 22% | 20% | 24% | 20% |
| RCN volume (kg/1kg kernel) | 4.76 | 4.17 | 4.65 | 5.00 | 4.17 | 5.00 |
| RCN price to farmer (/kg kernel) | 2.10 | 2.29 | 2.30 | 1.98 | 3.72 | 2.50 |
| Commission (USD/kg) | 0.18 | 0.21 | 0.13 | 0.25 | 0.06 | 0.18 |
| Transport (USD/kg) | 0.22 | 0.08 | 0.12 | 0.15 | 0.05 | 0.22 |
| **Total RCN cost** | 2.49 | 2.58 | 2.55 | 2.38 | 3.84 | 2.90 |
| % of revenue | 50% | 55% | 51% | 49% | 71% | 58% |

### Operating & financial costs

| Non-financial (USD/kg)**** | 1.45 | 0.98 | 0.99 | 1.09 | 0.58 | 1.10 |
| Financial (USD/kg) | 0.23 | 0.38 | 0.23 | 0.63 | 0.13 | 0.20 |
| Shipping (USD/kg) | 0.30 | 0.30 | 0.30 | 0.40 | 0.13 | 0.30 |
| **Total operating cost** | 1.98 | 1.66 | 1.52 | 2.12 | 0.83 | 1.60 |
| % of revenue | 40% | 35% | 31% | 44% | 15% | 32% |

### Pre-tax profit

| % of revenue | 10% | 10% | 18% | 7% | 14% | 9% |

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* W320 grade ('white whole' with 320 kernels per pound weight) is the most ‘saleable' kernel grade and hence most profitable
** Without 10% rebate, Nigerian best practice processor profitability is negative (-2% as % of sales)
*** “RCN” = Raw Cashew Nut
**** 85% fixed and variable labour cost, 15% other fixed and variable costs
Sources: TechnoServe analysis
## Production comparison

### Characteristics

<table>
<thead>
<tr>
<th>Country</th>
<th>Ivory Coast</th>
<th>Guinea-Bissau</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Ghana</th>
<th>India</th>
<th>Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity (MT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual</td>
<td>135,000</td>
<td>100,792</td>
<td>43,000</td>
<td>37,000</td>
<td>10,000</td>
<td>425,000</td>
<td>55,000</td>
</tr>
<tr>
<td>Forecast</td>
<td>145,000</td>
<td>106,839</td>
<td>43,000</td>
<td>37,000</td>
<td>10,000</td>
<td>525,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Yield (kg/tree pa)</td>
<td>Unknown</td>
<td>4.00</td>
<td>3.25</td>
<td>Not known</td>
<td>2.00</td>
<td>10.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Outturn (lb 'good' / 80kg)</td>
<td>46</td>
<td>53</td>
<td>49</td>
<td>44</td>
<td>48</td>
<td>52</td>
<td>44</td>
</tr>
<tr>
<td>Nut count (RCN’/1kg)</td>
<td>200</td>
<td>190</td>
<td>190</td>
<td>220</td>
<td>170</td>
<td>158</td>
<td>190</td>
</tr>
<tr>
<td>RCN price (USD/kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.89</td>
<td>0.50</td>
</tr>
<tr>
<td>Actual</td>
<td>0.40</td>
<td>0.50</td>
<td>0.45</td>
<td>0.39</td>
<td>0.39</td>
<td>0.89</td>
<td>0.50</td>
</tr>
<tr>
<td>Outturn adjusted (using GB = 100)</td>
<td>0.46</td>
<td>0.50</td>
<td>0.49</td>
<td>0.43</td>
<td>0.43</td>
<td>0.91</td>
<td>0.60</td>
</tr>
<tr>
<td>Critical diseases/pests</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>PMD fungus</td>
</tr>
</tbody>
</table>

### RCN marketing

<table>
<thead>
<tr>
<th>Country</th>
<th>Ivory Coast</th>
<th>Guinea-Bissau</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Ghana</th>
<th>India</th>
<th>Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of organization of market</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Access to information</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>None</td>
</tr>
<tr>
<td>RCN grading</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>None</td>
</tr>
<tr>
<td>Use of RCN (% of total)</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Processed domestically</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Exported as RCN</td>
<td>99%</td>
<td>99%</td>
<td>97%</td>
<td>96%</td>
<td>98%</td>
<td>940,000</td>
<td>940,000</td>
</tr>
</tbody>
</table>

### Farming

<table>
<thead>
<tr>
<th>Country</th>
<th>Ivory Coast</th>
<th>Guinea-Bissau</th>
<th>Benin</th>
<th>Nigeria</th>
<th>Ghana</th>
<th>India</th>
<th>Mozambique</th>
</tr>
</thead>
<tbody>
<tr>
<td># farmers</td>
<td>1,040,000</td>
<td>860,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># ha under cashew cultivation</td>
<td>175,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av. farm size (ha)</td>
<td>2.50</td>
<td></td>
<td></td>
<td>1.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Av. Yield / ha (kg)</td>
<td>576</td>
<td></td>
<td></td>
<td>70</td>
<td></td>
<td></td>
<td>1.50</td>
</tr>
<tr>
<td>Av. Output /farmer (kg)</td>
<td>97</td>
<td></td>
<td></td>
<td>59</td>
<td></td>
<td></td>
<td>1.50</td>
</tr>
<tr>
<td>Cost/kg</td>
<td>0</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agronomic practices</td>
<td></td>
<td></td>
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“RCN” = Raw Cashew Nut

Sources: TechnoServe analysis
## Enabling environment comparison

### General
- Stable investment environment
  - Ivory Coast: Poor
  - Guinea-Bissau: Poor
  - Benin: Good
  - Nigeria: Fair
  - Ghana: Good

- Availability of finance
  - Ivory Coast: Fair
  - Guinea-Bissau: Poor
  - Benin: Fair
  - Nigeria: Poor
  - Ghana: Fair

- Infrastructure (roads, port)
  - Roads
    - Ivory Coast: Good
    - Guinea-Bissau: Good
    - Benin: Good
    - Nigeria: Fair
    - Ghana: Good
  - Port
    - Ivory Coast: Good
    - Guinea-Bissau: Fair
    - Benin: Good
    - Nigeria: Good
    - Ghana: Good
  - Utilities
    - Ivory Coast: Good
    - Guinea-Bissau: Poor
    - Benin: Fair
    - Nigeria: Poor
    - Ghana: Good

### Agricultural support
- Research: Poor
- Extension: Poor
- Marketing: Poor
- Producer associations: Poor

### Processing support
- Raw nut tax
  - Ivory Coast: 5.2%
  - Guinea-Bissau: 8.5%
  - Benin: 0.0%
  - Nigeria: 0.0%
  - Ghana: 0.0%
- Tax concessions
  - Ivory Coast: No concession
  - Guinea-Bissau: No concession
  - Benin: 9 years+
  - Nigeria: 5 year holiday
  - Ghana: 9 years+
- Other (eg. Rebate)
  - Ivory Coast: None
  - Guinea-Bissau: None
  - Benin: None
  - Nigeria: ~20% ‘rebate’
  - Ghana: None

### Institutional support
- Government
  - Ivory Coast: Poor
  - Benin: Fair
  - Nigeria: Fair
  - Ghana: Fair
- Civil society support
  - Ivory Coast: Poor
  - Benin: Good
  - Nigeria: Fair
  - Ghana: Poor
- Civil society organisations
  - EWW
  - ROTA
  - SNV
  - LEAD
  - BTI
  - EfDI
  - Chemonics

Sources: TechnoServe analysis