Selected Results from Employment Impact Assessment of Agro Processing: Coffee, Tea and Pyrethrum in Rwanda and Cocoa in Ghana
## Rwanda: Employment in export value chains

Additional export potential for Rwandan Coffee, Tea and Pyrethrum: What would be employment effect of realising this potential?

<table>
<thead>
<tr>
<th></th>
<th>Untapped Export Potential (millions of USD)</th>
<th>Estimated employment effects of the untapped export potential at processors level (FTEs)</th>
<th>Estimated employment effects of the untapped export potential on wage employment (FTEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee</td>
<td>47</td>
<td>8 930</td>
<td>14 523</td>
</tr>
<tr>
<td>Tea</td>
<td>44</td>
<td>7 040</td>
<td>24 464</td>
</tr>
<tr>
<td>Pyrethrum</td>
<td>2.5</td>
<td>10 to 212</td>
<td>2 620</td>
</tr>
<tr>
<td>Total (rounded)</td>
<td>93.5</td>
<td>16 000</td>
<td>41 000</td>
</tr>
</tbody>
</table>
Employment per USD million of exports

- Employment in processing per USD 1 million of exports (full time job equivalents)
  - Coffee: 190
  - Tea: 160
  - Pyrethrum: 85

- Wage employment per USD 1 million of exports (full time job equivalents)
  - Coffee: 309
  - Tea: 556
  - Pyrethrum: 1048

- Total employment (including self-employed farmers) per USD 1 million of exports (2015)
  - Coffee: 948
  - Tea: 925
  - Pyrethrum: 4306
Export revenue per ha

- Coffee: 1.631
- Tea: 2.837
- Pyrethrum: 890
Conclusions

Meeting all export potential would boost employment:

- 16,000 FTEs at processing level- coffee and tea
- 41,000 wage employment at farm level (casual)

Other findings:
- Coffee: most employment in processing per USD 1 million of exports-linked to introduction of coffee washing stations
Scenarios for Cocoa Processing

Scenario 1 - What would be the employment impact if processed cocoa exports were to increase to USD1.5 billion?

- In 2017, Ghana exported USD 758 million of processed cocoa, export of additional USD 742 million.
- Increase production of cocoa beans all the additional cocoa processed is grown and no decrease in the export of beans.

Scenario 2 - What will be the employment impact if Ghana processed and exported 40 percent of its cocoa yield over the next five years?

- Currently 24% requires shifting 16 percent of cocoa exports from beans to processed cocoa.
- No increase in the current cocoa bean production.
Scenarios for Cocoa Processing

Conducted a detailed case study of two cocoa processing companies A, and B, who use different processing technologies. And combined it with input output based analysis:

Results Scenario 1: Increasing processed cocoa exports to USD 1.5 billion:

<table>
<thead>
<tr>
<th></th>
<th>Company A technology</th>
<th>Company B technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct FTEs</td>
<td>3,033</td>
<td>3,220</td>
</tr>
<tr>
<td>Indirect FTEs</td>
<td>315,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Total FTEs</td>
<td>318,000</td>
<td>353,000</td>
</tr>
</tbody>
</table>
Scenarios for Cocoa Processing

Results Scenario 2: 40% of export

<table>
<thead>
<tr>
<th></th>
<th>Company A technology</th>
<th>Company B technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct FTEs</td>
<td>1,400</td>
<td>1,600</td>
</tr>
<tr>
<td>Indirect FTEs</td>
<td>15,400</td>
<td>21,000</td>
</tr>
<tr>
<td>Total</td>
<td>16,400</td>
<td>22,600</td>
</tr>
</tbody>
</table>

Fairly consistent with Local Multiplier results for manufacturing
Conclusions

Employment creation in processing very limited (5 FTE/ USD million of exports), albeit relatively good jobs- but job creation not key rationale for incentives

Processing technology has some impacts on:

• Direct employment: Similar number of employees but important difference in ratio of skilled/ unskilled workers

• Indirect employment- large, even outside agriculture

Other important issues emerged:

Processors have spare capacity and are continuing to invest in more- supply of beans is key constraint:

• Demand for Ghanaian Cocoa high on global market

• Local processors compete for “light crop” (small beans)- or import from Cote d’Ivoire

• Ageing cocoa farmers and trees

• Youth not entering cocoa farming
Manager of one of the processors:

“The light crop is what the local processing companies end up using and that is actually what the government sells to us at a discount. The total production is about 180,000 metric tons a year and the installed capacity of processing companies is 450,000 metric tons.

If the light crop and the main crop were being sold at the same price, then, we [the country] are producing close to 850,000 metric tonnes which is more than the installed capacity. Then there would be enough cocoa but the main crop, we don’t want it is because is too expensive.”