How to achieve a living income for different types of smallholder cocoa farming families?

Evidence based insights to feed discussion on strategy design

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Multiple pathways towards a living income

- The **majority of the smallholder farming families** in cocoa, coffee and tea do not earn a living income.

- Living income gaps are often large, on average **thousands of dollars** per family per year. Billions are needed per country to close all gaps.

- Evidence shows that **not all farming families can** earn a living income by producing cocoa, or from farming.
  - Despite price increases, cash transfer, farm output increase.

- **Different pathways for different families**: Cocoa production, on farm diversification, But also: off-farm diversification.
What pathways for which types of families?

- Assess which factors are important in predicting whether a living income gap is small or large (machine learning)
- Assess the potential for households to earn a living income, based on thresholds for factors important for predicting income gap
- Assess which household segments are identified through an econometric clustering analysis, with living income gap as outcome variable
- For Côte d’Ivoire, Ghana and Indonesia
- Based on these assessments: Propose different groups of farming families and their pathways for achieving or exceeding a living income
Important factors in predicting the income gap

Main factor: Total cocoa volume produced
- Total input costs
- Cocoa farm size
- Farm ownership
- # days spent by hired labour (total)
- Gender & Region
- # People in household

Differences between countries
- IND:
  - Total input cost, cocoa farm size and regions are more important
  - Gender less important
- CIV: Ownership more important
- GH: Region less important
Seven family segments in Côte d’Ivoire

- Low or no income gap: large volume on large farm, cocoa & other
- Low income gap: Larger volume on larger farms, low input & low hired labour cost
- Average income gap: More time spent by family
- Average income gap: Diversified: lower share of farm with cocoa
- Larger income gap: Smaller farm, lower volume, lower input cost, smaller families
- Larger income gap: Smaller farm, higher input & hired labour cost, less time spent by family
- Large income gap: Smaller farm, lower input cost
Differences between the segments

Deviation from the mean =

(mean - mean full sample) / standard deviation
Factors considered to assess the potential to close income gaps with commodity production

- Farm size: based on living income reference price methodology
- Total cocoa volume: as volume is important predictor for gap
- Ability to invest: based on total cocoa production cost per year
- Willingness to invest in cocoa: based on survey question(s)
- Size of the living income gap: 400 USD as applied in cash transfer programs
Potential of families to earn a living income from cocoa, without structural change

N: CIV 680, GH 159, IND 703
### Characteristics of these groups in Côte d’Ivoire

<table>
<thead>
<tr>
<th>Factors</th>
<th>No (n = 164)</th>
<th>Low (N = 368)</th>
<th>Medium (N = 116)</th>
<th>High (N = 32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cocoa volume (kg)</td>
<td>680</td>
<td>1,500</td>
<td>2,200</td>
<td>2,300</td>
</tr>
<tr>
<td>Cocoa farm size (ha)</td>
<td>1.8</td>
<td>3.9</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other farm size (ha)</td>
<td>0.6</td>
<td>1.1</td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td>Cocoa yield (kg/ha)</td>
<td>432</td>
<td>470</td>
<td>572</td>
<td>510</td>
</tr>
<tr>
<td>Family days/ha</td>
<td>60</td>
<td>38</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Willing to invest in cocoa (%)</td>
<td>0</td>
<td>27%</td>
<td>30%</td>
<td>94%</td>
</tr>
<tr>
<td>Size of the gap (USD)</td>
<td>1,700</td>
<td>1,500</td>
<td>1,500</td>
<td>1,400</td>
</tr>
<tr>
<td>Women (%)</td>
<td>12%</td>
<td>7%</td>
<td>9%</td>
<td>6%</td>
</tr>
</tbody>
</table>
To close living income gaps entirely, we need to think big and do things structurally differently, addressing challenges of all families.

Farming families need voice & choice to substantially increase income, from farming but especially also from off-farm sources.

Different types of support needed for different farming families because of the differences in potential to increase their income from cocoa and farming.

This requires all stakeholders to take responsibility: governments, companies, investors, multilateral donors, NGOs and science.
Thank you!

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Further reading:

- Balancing the living income challenge (2021)
- Multiple pathways to living income (2021)
- WUR white paper on living income (2019)