THE PERCEPTION OF DEFICIENCIES OF SMALLHOLDER COFFEE FARMERS
A PANEL ANALYSIS OF A RURAL COMMUNITY IN EASTERN UGANDA

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Introduction

• About 42% of Uganda’s Households (HH) are engaged in coffee production (Makara 2018).
• Smallholder coffee farmers often do not live under conditions that surpass subsistence level.
• Successful solving of challenges leads to development in the individual and/or community, whereas failing solutions impedes the solution of future challenges.

(Handry and Klop 2002)

→ research on the perception of deficiencies is required to develop approaches for successful solving of challenges.

• Due to the estimated decrease in climatic suitability for most of Ugandans Arabica coffee cultivation area, the debate of climate change might be considered as a potential high impact factor for more challenging situations (Chamans et al. 2013).

→ More challenging conditions for coffee production the farmers are faced: higher occurrence of pests and diseases, higher uncertainties with regard to temperature and irrigation (UNEP 2012).

→ Reduction in coffee quantity and coffee quality might occur (Jasenga et al. 2012).

→ Lower income from coffee selling, what thereby would also have a long-term impact on the farmers’ resources for the balance of wellbeing.

• The present study investigates the perception of deficiencies the farmers were faced in 2018 and 2019 and the changes with regard to the extent of deficits in order to provide ideas on the development of the living conditions of HHs engaged in coffee farming.

Material and Methods

• The study was conducted in the Mt. Elgon region, one of the three main Arabica coffee producing regions in Uganda (Koundutumua Farms and Padermugis 2012).

• The survey rounds took place during September and November 2018 and 2019 in three sub-counties of Elgon county (Fig. 1, Tab. 1):

Table 1: Number of HHs participating in the study in 2018 and 2019

<table>
<thead>
<tr>
<th>Subcounty</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulegini</td>
<td>156</td>
<td>133</td>
</tr>
<tr>
<td>Simu</td>
<td>90</td>
<td>79</td>
</tr>
<tr>
<td>Namwandi</td>
<td>145</td>
<td>149</td>
</tr>
</tbody>
</table>

TOTAL 431 361

• In total, the starting sample of 431 HH in 2018 was reduced by 70 HH due to reasons of moving to another region, the HH-head joined forces, was imprisoned or lost interest in the participation of the program. The majority of the 70 HH were not accessible due to heavy rainfalls and non-paved roads.

• Selection criterion: coffee cultivation

• Interviewed by local assistants, using the local language Lugisu

Results

• Farmers have been asked about their perception of deficiencies. Therefore, they were asked to value 16 deficiencies on a scale from 1 (=constrains me not at all) to 5 (=constrains me very much).

• Results from the Principal Component Analysis (PCA) identified a 5-factors solution

• KMO: 0.667, explaining 57.807 % of total variance in 2018

• KMO: 0.695, explaining 58.982 % of total variance in 2019

• Grouped into two main topics (1) constitution for farm management activities and (2) general life quality.

Table 2: Mean and standard deviation for the factors and single variables

<table>
<thead>
<tr>
<th>Factor/Variable</th>
<th>Mean ± SE in 2018</th>
<th>Mean ± SE in 2019</th>
<th>Difference in 2018 to 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Reliability</td>
<td>4.13 ± 2.69</td>
<td>3.91 ± 2.79</td>
<td>0.140</td>
</tr>
<tr>
<td>Factor 2: Water supply</td>
<td>2.77 ± 1.79</td>
<td>2.77 ± 1.71</td>
<td>0.170</td>
</tr>
<tr>
<td>Factor 3: Production</td>
<td>4.37 ± 0.64</td>
<td>4.37 ± 0.57</td>
<td>0.020</td>
</tr>
<tr>
<td>Factor 4: Infrastructure</td>
<td>2.77 ± 0.64</td>
<td>2.77 ± 0.57</td>
<td>0.020</td>
</tr>
<tr>
<td>Factor 5: Price</td>
<td>4.37 ± 0.64</td>
<td>4.37 ± 0.57</td>
<td>0.020</td>
</tr>
<tr>
<td>Explorative middleman</td>
<td>2.77 ± 0.64</td>
<td>2.77 ± 0.57</td>
<td>0.020</td>
</tr>
<tr>
<td>Lack of insurance</td>
<td>2.77 ± 0.64</td>
<td>2.77 ± 0.57</td>
<td>0.020</td>
</tr>
<tr>
<td>Lack of health care</td>
<td>4.13 ± 1.87</td>
<td>4.13 ± 2.14</td>
<td>0.050</td>
</tr>
</tbody>
</table>

(Results given show deterioration from 2018 to 2019 for the single factor or variable, opposite values show improvement.)

• Many farmers mentioned improved source of information and provided water taps within the last 12 months, especially in Namusimi and Simu.

• Regarding factor 3, 2019 most farmers complained about inappropriate machines and cheating of buyers and sellers, in 2019, nearly all HHs mentioned that the roads due to heavy rainfall are very bad condition which results in further constraints.

• Further data analysis should focus more on impacts of climate change.

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References


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