Diversity amongst small-scale avocado and macadamia farmers in South Africa

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Background
Policymakers and value chain actors are increasingly aware that ‘small-scale farmers’ are not all the same. Households face different opportunities and production constraints. Getting insight into the diversity among them is therefore key for policies and value chain collaborations that aim to improve livelihoods and create sustainable farming systems.

As a first step towards creating this insight, the inclusive Value Chain Collaboration (VCC) project team carried out a baseline study in both Ghana (Eastern region) and South Africa (Vhembe District Municipality, Limpopo Province) in February 2015. The aim of the survey was to gather data on households’ income sources; production objectives; crop choice, access to land, capital, labour, information and services; and food and dietary diversity. In Ghana, 148 smallholders were interviewed and in South Africa 140. This info sheet presents the preliminary results for South Africa.

Study area
In South Africa, the baseline survey was carried out in the Makhado and Thulamela Municipalities in Limpopo Province (Fig. 1). A total of 140 farmers were selected, of whom 30 indicated macadamia and 79 avocado as their main tree crop, whereas 31 were non-tree crop farmers focusing mainly on vegetable production (hereafter ‘vegetable group’). The latter group was included as a control group, based on the assumption that they differ in characteristics, food security and levels of institutional support.

Household characteristics
The average age for the head of household was 60 years (SD = 16) for the entire group. About a quarter (24.3%) are female-headed households with no significant difference across the groups. Education levels however differed substantially, with the macadamia group showing a high level holding a tertiary degree (32%). This compares to 16% and 14% for the avocado and vegetable groups respectively. For all groups, 31% considered themselves full-time self-employed farmers, with a considerable proportion of macadamia and avocado farmers indicating that they consider themselves pensioners (36.7% and 35% respectively).

Land holding
What a smallholder is in terms of landholding differs per region and may range worldwide from 0.5 to 10 ha or even more. In South Africa, definitions do not pertain to farm size, with research and policy reports merely noting a difference between subsistence...
farmers who own less than 1 ha and smallholders that have unspecified ‘small farms’. Average landholding sizes in the survey differed across groups: 6.8 ha for macadamia farmers, 6.3 ha for avocado farmers and 3 ha for vegetable farmers (ranging from 46 ha to 0.25 ha). On average households owned 1.7 farm plots. Communal land holding (‘Permission to Occupy’) represents 84.4% of landholding, with only 2.8% holding title deeds. The group of macadamia and avocado farmers generally acquired their fields after 1990, whereas vegetable-oriented households acquired these earlier (on average between 1967 and 1970 for first and second fields). The difference in time of acquisition and land size across the groups is partly explained by the fact that vegetable farmers hold plots on irrigation schemes, which they received at the time of the Venda Republic pre-1994 government.

Diversification and marketing channels
Of the surveyed farming households, most engaged in diversified tree crop production. Tree crop producers widely combined with food crops. Avocado farmers combine mostly with litchis (71%) and mangoes (66%) and less so with macadamia (31%). Macadamia farmers combine mostly with avocado (84%), litchis (84%), and less with mangoes (53%). Both groups substantially engaged in maize production (39% and 44% respectively), spinach (31 and 37% respectively) and cabbage (29% and 25% respectively). The crop combinations indicate that avocado farmers are less likely to diversify. This confirms findings from observations and additional interviews that show that avocado is the more established tree crop with which farmers are most familiar in terms of production and marketing.

Marketing outlets for the past 12 months show that avocado has the widest range of marketing options (Table 1). This confirms findings from other research within this programme, which shows that avocado farmers engage in multivalue chains (see MSc thesis by Ulrike Chawiche on the project website). The high rates of unsold macadamia crops correspond with explanations by macadamia farmers in informal interviews that their orchards were not yet fully-grown and that they suffered crop losses due to poor environmental conditions in the past year.

### Table 1. Marketing channels for macadamia and avocado farmers

<table>
<thead>
<tr>
<th>Destination</th>
<th>Macadamia farmers % sold</th>
<th>Avocado farmers % sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sold</td>
<td>39</td>
<td>5</td>
</tr>
<tr>
<td>Local fresh produce market</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Local villagers</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Local company</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Buyers/traders</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Non-local company</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Direct to supermarkets</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Government institution</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Johannesburg market</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

### Income distribution and expenditure
Average total yearly income was estimated at 24,853 ZAR (about 1,643 EUR), being the highest for avocado farmers (29,087 ZAR or 1,923 EUR) and the lowest for vegetable farmers (20,814 ZAR or 1,376 EUR). When asked about the main income source, 35% of respondents mentioned agriculture, 27.5% social grants, 27% wage labour, 6% private pension, 3% small business and 1.5% remittances. The estimated proportion of agricultural income of total income however indicates a higher reliance on agriculture: 64% for macadamia farmers, 60% for avocado farmers and 72% for vegetable farmers.

Data on how farming income is spent (Figure 2) suggests high expenditure on farm inputs and labour and rather low levels of investment in structural improvements like fencing and irrigation. Of the macadamia and avocado farmers respectively 81% and 65% indicated that they hired labour from other families. Three quarters of all farmer households stated to have purchased their seeds.

![Fig.2. Main expenditure of farming income (N=126)](image)
Food security and dietary diversity

When asked whether households experience food insecurity 67% answered ‘certainly not’, 29% ‘sometimes’ and 4% ‘regularly’. Hardly any of the households (3%) ever go without food for a day due to a lack of money. Dietary diversity is generally high, with little difference across the three groups. However, the wealthier macadamia and avocado farmers have higher levels of food and chicken consumption. The month of September, just before the start of the rainy season, is regarded as the period when food insecurity is highest.

Across all groups 41% owns livestock (mainly poultry) and 22% of respondents indicated that the household fishes from rivers and dams. The figures corroborate local perceptions that food security is not a major issue and that (affordable) food is readily available. Further research is required to explore intra-household food distribution and to identify the role of gender in food security.

Institutional support

Government is the main source of support with 48% of all respondents (N=140) indicating that the household had at some time benefitted from a government agricultural programme. The support is however unevenly distributed across the groups with a disproportionately high number of macadamia farmers claiming that they had received government support. Various programmes were identified as having provided support (Figure 3).

Over 90% of households that had received training in areas of production (n=79), marketing (n=63), record keeping (n=51) and storage (n=51) were offered the training for free.

Forty respondents identified themselves as being a member of a farming organisation, of which 11 were members of the African Farmers’ Association of South Africa (AFASA) and another 6 were members of the South African Subtropical Growers’ Association (Subtrop). The overall picture of the support structure suggests that there is a bias towards commercial tree crops in state support and private sector involvement. Whether this goes at the expense of support for other groups like vegetable farmers remains to be explored. The observations seem to be in line with the policy trend towards developing a category of ‘emerging farmers’ who to a varying degree are already integrated in value chains and relatively well-endowed with resources.

Conclusions and implications

- Tree-crop farmers are an ageing population (60 years on average); more than one third consider themselves a pensioner.
- Macadamia and avocado farmers on average own over 6 ha of land, mostly under a PTO (permission to occupy) arrangement. This is twice as much as the average for vegetable farmers.
- Vegetable farmers are the longest established in the region, followed by avocado farmers.
- Macadamia orchards are often not yet in full production.
- Intercropping with vegetables is an important livelihood strategy.
- Tree-crop farmers seek state support for structural investments in their farms.
- Food security and dietary diversity are high, but intra-household differences need more research.
- Macadamia farmers receive more support from the state and private sector than other farmers.
- Overall, the vegetable farmers seem to be less well-off. Further research is to reveal the implications for deprivation, access to support structures and food security.

Reference: