Monitoring Production and Adoption of OFSP: Lessons from TIA

by MINAG/Direcção de Economia

What is TIA?

Trabalho de Inquérito Agrícola

The National Agricultural Survey
Directorate of Economics
Ministry of Agriculture
Sampling frame


2008 based on Population Census of 2007

Basic Objectives

• Collect data on agricultural production, livestock, area cultivated, use of inputs

• Collect data on indicators used by ProAgri and the PARPA (PRSP)
• Survey includes small, medium and large landholders.

• Classification is based on cultivated land, number of livestock and (in 2005, 2006) number of fruit trees.

• TIA is representative at the provincial-level.

• Crops that are very localized like jatrofa and wheat are not covered by TIA.
### Number of districts covered

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>66</td>
</tr>
<tr>
<td>2002, 2003</td>
<td>80</td>
</tr>
<tr>
<td>2008</td>
<td>128</td>
</tr>
</tbody>
</table>

*Excludes Maputo City, Matola, Beira and Nampula.*

### TIA 2008

Number of enumeration areas ... 687

Number of small- and medium-holders interviewed ... 5972
Sweet potato production

- Up to 2003, TIA collected data on sweet potato production in general
- Starting in 2005, a separate category was created for OFSP!

Challenges of collecting OFSP production data

1. Identification of OFSP
2. Estimating total production of a crop harvested, usually, in small quantities
3. Estimating area (a challenge for all crops!)
1. Identifying OFSP
*Enumerators have to show pictures*

<table>
<thead>
<tr>
<th>RACES DICE</th>
<th>OE CUBES OF POLPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTATO</td>
<td>POTATO</td>
</tr>
<tr>
<td>BEAN</td>
<td>BEAN</td>
</tr>
</tbody>
</table>

2. Estimating production of crop harvested in small quantities

- *Assessment and improvement of the survey instrument*
- *Intensive preparation of enumerators thru training and testing*
First, respondents are asked:

1. Months of major harvests...
2. Months of minor harvests...
3. Months without any harvest...

...in the last 12 months.

In 2002, respondents were asked quantity harvested per week/month during the months of major harvest and minor harvest.

BUT in the majority of cases, respondents and enumerators had to do calculations, resulting sometimes in error and contributing to both respondent and enumerator fatigue.
• From 2005 onwards, the question has been changed to allow respondent to state the actual frequency of harvest, e.g.,

2 x a day
3 x month
production for the whole season

Training consists of lectures, practice interviews, tests and exercises until the concepts are well understood.

The enumerator is given exercises until he/she answers the exercises correctly.
INQUIRIDOR(A):

“nos últimos 12 meses .... quais são os meses de colheita de **GRANDES** quantidades ...”

“.... quais são os meses de colheita de **MENORES** quantidades ...”

INQUIRIDA:

“... **grandes** quantidades em **Junho e Julho**”

“... **menores** quantidades em **Março, Abril e Maio**...”
Preenchimento de meses de **maior / menor** colheita.
Preenchimento de meses de maior / menor colheita

INQUIRIDOR(A):

“Durante os meses de **maior** colheita, **Junho** e **Julho**, quantos vezes por dia, semana ou mês fez colheita?”

Aqui estamos a deixar o agregado familiar indicar a frequência da colheita.

INQUIRIDA: “A minha irmã e eu fomos **3 vezes por semana**”
Como preencher “3 vezes por semana”

<table>
<thead>
<tr>
<th>107</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante os meses de maior colheita</td>
</tr>
<tr>
<td>(LEIA MESES)</td>
</tr>
<tr>
<td>quantas vezes por dia, semana ou mês fez colheita?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vezes</th>
<th>1 Dia</th>
<th>2 Sem</th>
<th>3 Mês</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

3 vezes ... por semana

**INQUIRIDOR(A):** “... maior colheita ... de cada uma das vezes que colheu, quanto é que tirou”
INQUIRIDO:
“Cada vez que colhei, tirei um cesto de mandioca fresca”

INQUIRIDOR(A):
“Quantos quilogramas, mais ou menos, de mandioca fresca em cada cesto?”

INQUIRIDA:
“Hmmm. 5 quilogramas”
Como preencher
“5 quilos de mandioca fresca”

“...nos meses de maior colheita, fui tirar
mandioca 3 vezes por dia...”
3a. Measuring Plot Area

1. Respondent-declared area data are collected for all plots.

2. In 25% of households, the area is also measured with GPS or Compass and Tape. The relationship between measured and declared area is determined using regression analysis.

3. The area for the remaining 75% of the households are adjusted using coefficients derived from the above analysis.
3b. Measuring Crop Area of Intercropped Plots

To estimate area of intercropped plots, we use the “jogo de feijões” or beans to show relative space occupied by each crop.
% growing OFSP  2005-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2.4</td>
</tr>
<tr>
<td>2006</td>
<td>4.8</td>
</tr>
<tr>
<td>2007</td>
<td>4.3</td>
</tr>
<tr>
<td>2008</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Production of Sweet Potato (000 ton)

Year

2005 2006 2007 2008
In TIA, plots are measured based on area planted during the first season. Sweet potato is planted extensively during the second season. It is an estimation/survey issue that DE will address.

<table>
<thead>
<tr>
<th>TIA</th>
<th>First Season</th>
<th>Second Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>9162</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>15990</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>17368</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>16230</td>
<td></td>
</tr>
</tbody>
</table>

Area planted to OFSP 2005-2008 (ha)

MUITO OBRIGADA