Jumpstarting OFSP in school menus: Intricacies of a single market & indications of a baseline study

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Abstract: School feeding in Nigeria provides a variety of meals to pupils including OFSP, as a mean to fight against vitamin A deficiency. In addition, it provides income to caterers & farmers. Even though OFSP is highly accepted by pupils & stakeholders, developing other markets is necessary to absorb excess production and to prevent incidence of unsold roots. This study presents an overview of the school feeding program, pupils’ dietary diversity, projection for root supply to the schools, and development of other markets for OFSP.

Pupils eating OFSP during lunch (11am)

Introduction: School feeding OFSP

- Primary I to IV
- 8 public schools
- 3,360 students on 4,160
- Pottage with deboned fish & palm oil
- Weekly monitoring
- 60 caterers
- 3 – 5 root suppliers (bags of 60kg)
- 2 private schools embraced it
- 10 schools using 30% OFSP bread
- Continued demand for inclusion into menus
- Availability of roots: more farmers entered into production
- Possibility to scale UP

Dietary Diversity of the pupils

<table>
<thead>
<tr>
<th>Food groups</th>
<th>Combined</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>3.38</td>
<td>4.09</td>
<td>3.91</td>
<td>3.95</td>
<td>3.78</td>
<td>3.97</td>
<td>4.18</td>
<td>3.99</td>
<td>4.48</td>
<td>4.48</td>
</tr>
<tr>
<td>Roots &amp; Tubers</td>
<td>2.84</td>
<td>3.07</td>
<td>3.06</td>
<td>3.08</td>
<td>3.08</td>
<td>3.05</td>
<td>3.11</td>
<td>3.09</td>
<td>2.99</td>
<td>2.99</td>
</tr>
<tr>
<td>Proteinplant</td>
<td>3.47</td>
<td>3.31</td>
<td>3.55</td>
<td>3.36</td>
<td>3.01</td>
<td>3.47</td>
<td>3.33</td>
<td>3.17</td>
<td>4.52</td>
<td>4.52</td>
</tr>
<tr>
<td>Protein Animal</td>
<td>3.06</td>
<td>3.06</td>
<td>3.10</td>
<td>3.21</td>
<td>2.91</td>
<td>2.96</td>
<td>2.87</td>
<td>3.00</td>
<td>3.05</td>
<td>3.05</td>
</tr>
<tr>
<td>Fats &amp; Vegetables</td>
<td>3.33</td>
<td>3.06</td>
<td>3.41</td>
<td>3.52</td>
<td>3.4</td>
<td>3.09</td>
<td>3.27</td>
<td>3.25</td>
<td>3.17</td>
<td>3.17</td>
</tr>
<tr>
<td>Protein &amp; Sugar</td>
<td>4.02</td>
<td>3.66</td>
<td>4.47</td>
<td>4.05</td>
<td>3.9</td>
<td>4.1</td>
<td>3.89</td>
<td>4.28</td>
<td>4.28</td>
<td>4.28</td>
</tr>
</tbody>
</table>

- Low variation of different food group
- Fat, oil and sugar more consumed
- Roots and tubers not consumed as other food groups
- Not enough consumption of protein animal
- Age 9: lower variation compared to younger and older age
- Indication for use of OFSP
- Indication to sensitize all levels (parents-18% grow SP, teachers- 27% grow SP, and pupils)

Demand for OFSP by 8 schools

<table>
<thead>
<tr>
<th>School</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils</td>
<td>14,156</td>
<td>17,432</td>
<td>16,816</td>
<td>16,024</td>
<td>15,840</td>
<td>15,896</td>
<td>16,104</td>
<td>16,328</td>
<td>16,540</td>
<td>16,752</td>
</tr>
<tr>
<td>Income</td>
<td>$19,264</td>
<td>$24,966</td>
<td>$23,456</td>
<td>$22,032</td>
<td>$20,608</td>
<td>$20,144</td>
<td>$20,720</td>
<td>$21,304</td>
<td>$21,888</td>
<td>$22,472</td>
</tr>
<tr>
<td>Students</td>
<td>9,098</td>
<td>10,660</td>
<td>12,224</td>
<td>13,788</td>
<td>15,352</td>
<td>15,904</td>
<td>16,456</td>
<td>17,008</td>
<td>17,560</td>
<td>18,112</td>
</tr>
<tr>
<td>Income</td>
<td>$5,254</td>
<td>$6,600</td>
<td>$7,946</td>
<td>$9,292</td>
<td>$10,638</td>
<td>$12,084</td>
<td>$13,530</td>
<td>$14,976</td>
<td>$16,422</td>
<td>$17,868</td>
</tr>
</tbody>
</table>

What IF the lone mall is closed:

- Children affected: 7,098 to 56,836
- Lost of revenue to (35% of) farmers & Caterers
- Lost of business transactions (multiplier effect)
- Disappointments uncertainty for future collaborations (stakeholders)
- Responsibility for unsold roots
- Government: State & Federal

Good News: Potentials for OFSP

- Potentiality: 30% teachers & 18% parents as SP farmers
- Trainings: Processors & Producers
- Increasing interest from women, farmers & producers
- Rapid increase in awareness & acceptability
- New markets developing: private schools, processors, local markets & street sellers, hotels & consumers (women’s groups)
- Farmers: NEIGHBORS & other farmers
- 65% farmers (n=207), 88% growers (n=83)
- Financial institutions: willingness to provide credits to producers & processors of OFSP
- Other States