Consumption Patterns of Major Staples in Rural & Urban areas of Kenya

by

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Introduction

• Producers and consumers key partners in the Food security agenda

• **Key challenge:** Allowing acceptable output prices for producers while keeping prices low enough to enhance access by the poor households

• Costs (Production, Processing, marketing) usually passed to consumers

• **Objective:** To monitor trends and draw policy relevant lessons from observable consumption patterns

• Analyzed 2 cross-sectional expenditure surveys (2013 & 2015) – Rural

• A rapid urban consumer survey (2016)

• Major staples considered include Maize, Wheat, Rice, Plantain, Potato
Overall Consumption Pattern

Percent of household consuming per week

Quantities consumed per week (Kg)

Posho  Sifted flour  Rice  Wheat flour  Potato  Plantain

% Households

Kg Consumed

2013  2015

2013  2015
Posho consumption by income categories

Income quintile

<table>
<thead>
<tr>
<th>Income Quintile</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>86.6</td>
<td>80.2</td>
</tr>
<tr>
<td>2</td>
<td>86.3</td>
<td>78.2</td>
</tr>
<tr>
<td>3</td>
<td>83.9</td>
<td>77.9</td>
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<tr>
<td>4</td>
<td>84.7</td>
<td>78.6</td>
</tr>
<tr>
<td>Highest</td>
<td>87.5</td>
<td>74.4</td>
</tr>
</tbody>
</table>

Quantity (Kg/week)

<table>
<thead>
<tr>
<th>Income Quintile</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>65.0</td>
<td>70.0</td>
</tr>
<tr>
<td>2</td>
<td>70.0</td>
<td>75.0</td>
</tr>
<tr>
<td>3</td>
<td>77.9</td>
<td>80.0</td>
</tr>
<tr>
<td>4</td>
<td>78.6</td>
<td>85.0</td>
</tr>
<tr>
<td>Highest</td>
<td>87.5</td>
<td>90.0</td>
</tr>
</tbody>
</table>
Consumption of staples by income groups (2013 & 2015)
Consumption of staples by income groups (2013 & 2015)

- Sifted maize meal
- Rice
- Wheat flour
- Potato
- Plantain

Quantity (Kg/week)

Chart showing the consumption of staples by income groups for 2013 and 2015.
Consumption in selected counties

### Posho

![Bar graph showing consumption of Posho in selected counties for 2013 and 2015.](chart)

- **Siaya**: 90% in 2013, 80% in 2015
- **Kisumu**: 100% in 2013, 90% in 2015
- **Trans Nzoia**: 80% in 2013, 70% in 2015
- **Uasin Gishu**: 70% in 2013, 60% in 2015
- **Nandi**: 60% in 2013, 50% in 2015
- **Kakamega**: 50% in 2013, 40% in 2015
- **Bungoma**: 40% in 2013, 30% in 2015
- **Busia**: 30% in 2013, 20% in 2015

### Wheat flour

![Bar graph showing consumption of Wheat flour in selected counties for 2013 and 2015.](chart)

- **Siaya**: 80% in 2013, 70% in 2015
- **Kisumu**: 70% in 2013, 60% in 2015
- **Trans Nzoia**: 60% in 2013, 50% in 2015
- **Uasin Gishu**: 50% in 2013, 40% in 2015
- **Nandi**: 40% in 2013, 30% in 2015
- **Kakamega**: 30% in 2013, 20% in 2015
- **Bungoma**: 20% in 2013, 10% in 2015
- **Busia**: 10% in 2013, 0% in 2015
Consumption in selected counties

<table>
<thead>
<tr>
<th>County</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siaya</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kisumu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans Nzoia</td>
<td></td>
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</tr>
<tr>
<td>Uasin Gishu</td>
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<tr>
<td>Bungoma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Busia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Quantity (Kg/week)
Consumption in selected counties

Quantity consumed (Kg/week)

2013  2015
Key findings

- General decline in Posho maize meal and wheat flour consumption (Both quantity and % of households consuming)
  - Posho consumption decline higher among high income households
  - Wheat consumption declined only among high income households, no significant change in quantities consumed

- General rise in consumption of Sifted maize meal, Rice, Plantain & Potato
  - Rice consumption rapidly rising across all income categories
  - Consumption of Sifted maize meal rising among maize producing counties
  - Potato consuming households rising across all income categories but with declining quantities consumed
  - Plantain consumption rapidly rising across all income groups and counties

- Maize still the dominant staple though declining in importance with other staples such as Rice, Potato and Plantain gaining importance
Urban consumption
Importance of maize meal to household

- Kibera: 93.8% (Very), 6.3% (Average)
- Kawangware: 76.5% (Very), 23.5% (Average)
- Overall: 84.8% (Very), 15.2% (Average)
Consumer preferences

<table>
<thead>
<tr>
<th></th>
<th>Kibera</th>
<th>Kawangware</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posho</td>
<td>50.0</td>
<td>23.5</td>
<td>36.4</td>
</tr>
<tr>
<td>Sifted</td>
<td></td>
<td>70.6</td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

Percent
Reasons for preference

- Good taste
- Healthy and nutritious
- Easy to cook
- Indigestion due to straight run flour
- Readily available
- Used to packet flour since childhood
- Fear of chemical additives in packet flour
- When the household has maize to mill

Percent

Good taste | Healthy and nutritious | Easy to cook | Indigestion due to straight run flour | Readily available | Used to packet flour since childhood | Fear of chemical additives in packet flour | When the household has maize to mill

Posho | Sifted
Other staples consumed

- Rice: 87.5%
- Wheat: 56.3%
- Matoke/Bananas: 21.9%
- Irish potatoes: 3.1%
- Sweet potatoes: 3.1%
Sources of Grain for Posho

<table>
<thead>
<tr>
<th>Percent</th>
<th>Kibera</th>
<th>Kawangware</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>37.5%</td>
<td>50.0%</td>
<td>41.7%</td>
</tr>
<tr>
<td>80%</td>
<td>25.0%</td>
<td>25.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>60%</td>
<td>37.5%</td>
<td>25.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
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</tbody>
</table>

- **Own grain**
- **Buys grain from miller and mills at posho mill**
- **Buy grain and take to miller**
Trends in maize grain & Flour Prices

Maize Grain - Loose
Maize Flour - Sifted
Maize grain - W/sale
Conclusions

- Maize still the dominant staple consumed by over 80% of households though declining in importance in household food consumption basket.

- General increase in consumption of rice, wheat, plantain & potatoes; substituting maize or food diversification???

- The prices of *posho* meal not significantly different from the prices of sifted maize meal.
  - Potentially encouraging consumption of sifted meal.

- Good taste, ease of cooking and availability are the major drivers of preference for sifted maize flour while Nutrition quality, health consciousness and ‘experience’ drive preference posho.
Policy implication

- Develop/review strategies to improve access and availability of alternative staples such as rice, potato & plantain given the increasing food diversification trends.

- Integrate other staples in the National and County food security programs such as Strategic Food Reserves.