

***Do bicycles equal development in Mozambique*** by Joseph Hanlon and Teresa Smart (Oxford: James Currey, 2008) pp 61-62

## **IAF: Consumption and poverty lines**

A pair of surveys looked at family consumption (IAF, Inquérito aos Agregados Familiares) in both rural and urban areas in 1996-97 and 2002-03<sup>1</sup>. The headline figure of the number of people living below the poverty line falling from 69% to 54% is based on a comparison of the two IAFs.<sup>2</sup>

The key issue here is the definition of the poverty line, in a way that reflects very wide variations in prices and consumption patterns throughout the country. A different poverty line was defined in each of 13 different areas of the country. Research on the IAF used a 'basic needs approach' to define a food poverty line, based on the cost of the amounts of food in a typical diet needed to provide an average 2150 kilocalories per person per day, considered the 'minimum caloric requirements'.<sup>3</sup> For 1996-97 for each of the 13 areas, a 'food basket' was defined, which reflected what people near the poverty line actually consumed. Next, an essential non-food poverty line was established in each area by looking at the normal expenditure of people near the food poverty line. Spending by these people on clothing and other non-food items ranged from 18% of the total budget in rural areas and 32% in some urban areas.<sup>4</sup> Food and non-food were then combined to give a poverty line for each of the 13 areas. With those poverty lines, 69% of the population, 11.2 million people, were below the poverty line.

For the 2002-3 survey, the obvious choice was to use the same food basket and the same percentage non-food spending. If this is done, the share of people below the poverty line falls from 69% to 63%. Because of population increases, the number of people in poverty has actually increased from 11.2 million to 11.7 million.

But the authors of the report on the 2002-3 survey note that the cost of the food bundle had more than doubled in most parts of the country, and this was well above the official inflation rate of 77%. They further argue that, in reality, poor people will switch, for example substituting cheaper cassava for more expensive maize, in order to reduce their food costs. So they use the survey data from 2002-03 to see what people near the poverty line actually bought and ate. Combined with some quite complex statistical methods, they create 'flexible food bundles' which involve some degree of switching to cheaper foods. If this is used instead of the 'fixed food bundles', then the fall of the number of people below the poverty line is dramatic, from 69% to 54%.<sup>5</sup> Despite population increases, the number of impoverished people has decreased from 11.2 million to 10.0 million.

Thus two different definitions of a poverty line food basket give two different figures, of 11.7 million or 10 million people below the poverty line. Which is correct?

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<sup>1</sup> In 2002-3 households were interviewed three times in a week in order to get a good picture of

<sup>2</sup> The surveys were carried out by the then Ministry of Planning and Finance. The 1996-97 survey was analysed with the support of a team from the International Food Policy Research Institute in the USA; the 2002-03 survey was analysed with support of a team from Purdue University in the USA, funded by Denmark, Britain, and Switzerland. The second survey involved 8700 households throughout the country.

<sup>3</sup> Cláudio Massingarella et al, *Poverty and Well-being in Mozambique: The Second National Assessment (2002-2003)*, Maputo: Ministry of Planning and Finance, International Food Policy Research Institute, Purdue University, 2004., p6; Sergio Cassamo et al, *Understanding Poverty and Well-Being in Mozambique: The First National Assessment (1996-97)*, Maputo: Ministry of Planning and Finance, Eduardo Mondlane University, International Food Policy Research Institute, 1998, p 19

<sup>4</sup> This should reflect 'essential' non-food expenditure, but spending in rural Nampula is only one-quarter of that in urban Maputo province, which suggests some difference is what is seen as 'essential'.

<sup>5</sup> With the fixed food bundle, the decreases in poverty are entirely rural and mainly in Sofala and Tete provinces. With the flexible bundle, poverty falls in both rural and urban areas and in Zambezia as well as Sofala and Tete. Interestingly, with flexible bundle, poverty increases significantly in Maputo city and province.

Table 7.2  
**Poverty lines, MT & \$ per person per day<sup>6</sup>**

	MT per capita, 2003 prices			\$ per capita, 2003 prices		
	1996-97 (at 2003 prices)	2002-03 fixed basket	2002-03 flexible basket	1996-97 (at 2003 prices)	2002-03 fixed basket	2002-03 flexible basket
Nampula - rural	5.95	6.44	5.97	0.25	0.27	0.25
Nampula - urban	8.76	11.18	6.66	0.37	0.47	0.28
Manica & Tete - rural	8.34	8.34	6.93	0.35	0.35	0.29
Manica & Tete - urban	13.12	14.90	9.69	0.55	0.63	0.41
Maputo City	15.12	16.98	19.52	0.64	0.72	0.82
average rural (w/o Maputo)	8.28	7.75	6.90	0.35	0.33	0.29
average urban (w/o Maputo)	9.80	9.73	7.68	0.41	0.41	0.32

w/o Maputo = excluding Maputo city and province  
 1996-97 prices are adjusted for 77% inflation between the two surveys,

Table 7.2 gives a sample of five of the 13 regional poverty lines, ranging from one of the lowest to the highest, and includes the two provinces in Chapters 3 and 4. Two things are striking about the table – first the huge variation, with the poverty line in Maputo being more than three times the poverty line of some rural areas. The other is the way in which use of the flexible basket leads to the average rural poverty line (excluding Maputo province) falling from 8.3 MT per day (then 35¢, 17p) to 6.9 MT (then 29¢, 14p). If the poverty line is 17% lower than it was six years previously, it is hardly surprising that the number of people below the poverty line has fallen by a similar amount – even if their real income has not risen.

The use of the ‘flexible food bundle’ is highly controversial, with knowledgeable Mozambicans taking both sides. Between the two survey dates, maize prices rose significantly while cassava prices declined<sup>7</sup>, and the study team makes clear that ‘poor consumers opt to reduce maize flour consumption and increase cassava consumption’. In setting their food poverty line, they look only at calories and not at other nutrients.<sup>8</sup> The problem is that cassava is a much less nutritious food; it is a poverty food and the poorest eat proportionately more cassava and less

<sup>6</sup> 1996-7 from Sergio Cassamo et al, *Understanding Poverty and Well-Being in Mozambique: The First National Assessment (1996-97)*, Maputo: Ministry of Planning and Finance, Eduardo Mondlane University, International Food Policy Research Institute, 1998.

2002-3 from Cláudio Massingarella et al, *Poverty and Well-being in Mozambique: The Second National Assessment (2002-2003)*, Maputo: Ministry of Planning and Finance, International Good Policy Research Institute, Purdue University, 2004.

The consumer price index increased by 77% between the two surveys and this was used to correct 1996-7 prices to 2002-3 prices. Note that devaluation against the dollar was greater; meticais per dollar increased by 100%. This would have led to a much larger drop in the cost of the food basket, in \$s, with 1996-87 urban and rural poverty lines being 0.41 and 0.49. So instead of direct \$ conversions, we have instead converted first to 2002-3 prices then into 2002-3 \$s, which seems to give a fairer comparison.

<sup>7</sup> Duncan Boughton, et al, ‘Changes in Rural Household Income Patterns in Mozambique, 1996-2002, and Implications for Agriculture’s Contribution to Rural Poverty’, Research Report 61, Ministry of Agriculture & Rural Development and University of Michigan, Dec 2006, p 34

<sup>8</sup> Cláudio Massingarella et al, *Poverty and Well-being in Mozambique*., pp 6, 10

other grains.<sup>9</sup> This is probably one reason for the increase in chronic malnutrition shown in chart 7.2. Thus, although the flexible food bundle reflects what the poor are buying, it is not of the same nutritional quality – it is not the same poverty line but a lower one. Nutritionists and researchers we spoke with said that people do switch the food they buy, but they switch to lower quality food only reluctantly. One senior researcher angrily called it ‘cooking the data’.

Finally it is worth noting that the two provinces in chapters 3 and 4 show some of the biggest differences according to which data is used. With the same food basket as for 1996-7, the change is tiny and less than statistical error (1% and 2%) and less than the national average. Using the flexible basket leads to 16% and 19% of people being taken out of poverty in Nampula and Manica, respectively – both above the national average. Chronic malnutrition is decreasing in Manica, but is increasing in Nampula,<sup>10</sup> which is a major cassava area and in 2006 had outbreaks of Konzo (a form of paralysis caused by people eating too much cassava with cyanide, which happens only when there is severe hunger).

► CONCLUSION: The percentage of people below the poverty line fell from 69% to 63% between 1996-7 and 2002-3; and the number of people in poverty actually increased from 11.2 million to 11.7 million. The often quoted figure of a larger fall in the number in poverty is based on people switching from maize to less nutritious cassava, which is probably the cause of the increased malnutrition.

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<sup>9</sup> Instituto Nacional de Estatística, *Inquérito Aos Agregados Familiares Sobre Orçamento Familiar, Quadros Definitivos*, Maputo 2003. Quadro 3.9

<sup>10</sup> IDS 2003; SETSAN