



IDENTIFYING A TARGET FOR FOOD SECURITY IN SOUTH AFRICA

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Background/ Context to Study

- Food security monitoring and evaluation system needed
 - One element of this system is to develop benchmark against which improvements can be measured
- We are currently investigating:
 - *Conceptual and methodological* issues involved in determining food security targets
 - The potential use of a *food expenditure approach* to identify a preliminary household food security target
 - Available *data and information sources* that might be used in identifying the current state of food security
- Future research and policy support
 - Refine the benchmarks to better target food insecure household for interventions
 - Investigate options to enable low-income food insecure households to access nutritionally adequate food [examples: household own production, school & community gardens, food pricing dynamics, food supplements, social grants, etc...]

Purpose and Approach

- How many South African households can afford a nutritionally adequate food basket?
- To motivate the need for a household food security for South Africa
- To investigate the *conceptual and methodological* issues involved in determining food security targets
- To use a *food expenditure approach* to identify a preliminary household food security target
- HSRC experts panel agreed, is to ***start from a recommended nutrient intake*** for every South African to live a healthy life.

A food security target to guide food & nutrition security policy

- “Food security” is a policy priority in South Africa:
 - “Right to food” is entrenched in the Constitution (Section 27)
 - IF&NSS adopted in 2002- a inter-departmental policy framework to respond to food insecurity (DFS in DAFF)
 - Top priority of the 2009-2014 administration

Why a food security target?

- So, how many people in South Africa are food insecure?
- Given the evidence on FI, what are appropriate policy interventions?
- Unknown extent and degree of food insecurity in South Africa, compounded by the multi-faceted nature of food (in) security and lack of good quality data

Benefits of food security targets?

- A food security target has two immediate benefits:
 - It helps to focus pro-poor policy interventions
 - It raises the efficiency of fiscal spending aimed at assisting the poor to access enough food of the right quality

Challenging F & N S questions in context of halving poverty

- Poor people spend a higher share of their total income/expenditure on food
- “Food poverty” is a basic form of deprivation that many poor people face.
- What does government’s 2014 target for a 50% reduction of poverty mean in terms of “food poverty”?
- How might the 2014 target be translated into food security target?

The idea of a food security target

- A food security target is a well-defined and measurable goal to reduce the numbers of people who lack enough food of the right quality to live healthy lives.
- It requires a food consumption or nutrition norm against which to assess the food security status of a person, household or community.

Complex ingredients of food security targets

- **Household composition:** household size and the number of children (to account for economies of scale in consumption)
- **Wealth and livelihood strategy:** income and assets (land, livestock, labour etc.)
- **Geography:** rural/urban location and formal/informal settlements
- **Institutions:** markets, the state, social capital/networks
- **Time:** whether the food security condition is transitory or chronic
- **Risk:** shocks that are weather-related, health-related and so forth, commodity price movements

Mapping food security indicators

Indicator /measure	Focus	Examples
Food availability	National or household agro-food output/supply	Food balance sheets
<i>Food consumption/ Access</i>	Food demand or consumption at the household level (ways in which institutions regulate access to food)	Household expenditure models; food expenditure ratio; income elasticity
Composite food Security	Simultaneously captures each dimension in a single indicator	Poverty Hunger Index; Rose-Charlton Indicators; Food Security Gap Index

Example: Rose-Charlton method

Food expenditure

Nutritional intake

Food Poverty indicator (FP)

Low Energy Availability indicator (LEA)

$$FP \equiv \frac{HS}{FCP} < 1$$

HS = household spending on a nutritional diet

FCP = cost of a nutritionally adequate household food plan

$$LEA \equiv \frac{EA}{REA} < 1$$

EA = energy available from food supplies

REA = recommended energy intake

Lessons from previous studies

- *Content of food security indicators*: the predominant focus is on food consumption and access and less so on composite indicators.
- *Underlying data/survey*: describes the data collection instrument and gives a sense of the suitability of this tool for gather meaningful information on food security.
- *Food spending share*: a percentage indicating the weight of food expenditure in the overall household spending basket; for example- 'shortfall to afford a basic food-secure basket'.
- *Household food security status*: expresses the percentage of households below the food consumption/expenditure threshold.

Food expenditure approach

- Food expenditure data in IES 2005/06
 - Example of IES limitation: “zero food” expenditure for upper income deciles raises two issues: measurement error and non-response
 - Consequence, likely underreporting of food expenditure
- NAMC cost of basic food basket
 - Monetary value across major food groups (R344 per person per month in 2008)
 - Independent of clear nutrient intake indicators (kilocalories to produce energy levels)

Household food expenditure

- On average, based on IES 2005/06 the poorest 40% of households spend in the 30%-40% range of their total spending or income on food.
- Other nationally representative surveys find higher food spending shares among the poorest households: 71% in the BMR survey, 51% in the NFCS

Household food insecurity

- NFCS and GHS asked questions about experiences of hunger in households but report surprisingly different results
- The GHS, official StatsSA national statistical conducted annually uses a hunger scale module to gather information on adult and child hunger in households.
- GHS 2007 found that 12% of children and 10% of adults sometimes or always went hungry in that year (Aliber, 2009).
- National Food Consumption Survey (2005) reports that 51.6% of South African households experience hunger & 33% is at risk of hunger (Labadarios et al.,2009) at roughly similar average incomes to the GHS.

Hunger versus under-nutrition

- Hunger and under-nutrition are both outcomes of inadequate food intake but the meanings need to be clarified.
- Hunger is commonly understood to mean 'not eating enough food'.
- Under-nutrition, on the other hand, refers to the lack of essential micro-nutrients- like key vitamins, iron, zinc.
- Undernourished children- underweight and stunting.

Approach- cost nutritionally adequate food basket

- Identify 2 groups of the households based on this approach to ADEQ food expenditure within the household:
- ***Food spend > dietary energy food cost***: this shows the number and percentage of households with actual food spending above the estimated cost of dietary energy.
- ***Food spend < dietary energy food cost***: this shows the number and percentage of households whose actual food spending fell below the estimated cost of dietary energy.

Households reporting “zero” food expenditure by income deciles

Income Deciles	“Zero” food spending households	
	N	%
1	1,465	10.05
2	830	5.69
3	2,492	17.09
4	2,228	15.28
5	2,041	14
6	1,774	12.17
7	2,063	14.15
8	280	1.92
9	992	6.8
10	413	2.83
Total	14,578	

ADEQ Food Baskets based on Dietary Energy Cost, 2005 prices

Adult	Childr en	HH Siz e	ADEQ	Dietary Energy Cost Estimates				
				Average Dietary Energy =2,054kcal/p/d	Below Average Dietary Energy =1,553kcal/p/d			
1	0	1	1	262.66	262.66	189.25	189.25	
0	1	1	0.54	262.66	141.83	189.25	102.20	
1	1	2	1.45	262.66	380.86	189.25	274.41	
2	1	3	2.29	262.66	601.49	189.25	433.38	
2	2	4	2.69	262.66	706.55	189.25	509.08	
2	3	5	3.09	262.66	811.62	189.25	584.78	
3	2	5	3.49	262.66	916.68	189.25	660.48	

Estimates of food basket “dietary energy”

Food basket based on food groups and items	Total energy value (kj)		Kilocalories (4.18 MJ)	
	Per Month	Per Day	Per Month	Per Day
NAMC food basket	194,954.48	6,498.49	46,639.79	1,554.66
<i>Plus: Samp, Beef, Instant Coffee & Sugar</i>	<i>62,612.50</i>	<i>2,087.09</i>	<i>14,979.08</i>	<i>499.31</i>
NAMC Basket with alternative foods	257,566.98	8,585.57	61,618.87	2,053.97

Costing NAMC food basket based on actual 2000 and 2005 food prices

Food basket based on food groups and items	2000	2005
NAMC food basket (available prices)	83.64	189.25
<i>Plus: Samp, Beef, Instant Coffee & Sugar</i>	49.09	73.41
NAMC Basket with alternative foods	132.73	262.66

Number of households above and below 'basic' dietary

energy food costs, urban and rural

	Location	Food spend > dietary energy cost		Food spend < dietary energy cost	
		N	%	N	%
Below average dietary energy cost	All households	3 331 670	26.8	9 100 764	73.2
	Urban	2 679 563	33.08	5 420 440	66.92
	Rural	652 107	15.05	3 680 324	84.95
Average dietary energy cost	All households	2 293 886	18.45	10 138 548	81.55
	Urban	1 881 692	23.23	6 218 311	76.77
	Rural	412 194	9.51	3 920 237	90.49

Concluding insight & recommendation

- At the cost of the average dietary energy basket, which was R262 per person per month based on 2005 food prices
- 81% of households had total food expenditures below this dietary energy cost. [*closer to NFCS than GHS*]
- Future research and policy support
 - Refine the benchmarks to better target food insecure household for interventions
 - Investigate options to enable low-income food insecure households to access nutritionally adequate food [examples: household own production, school & community gardens, food pricing dynamics, food supplements, social grants, etc...]