

# **Brief 4: An Analysis of Household Income and Expenditure in Tanzania**

Produced by the Research and Analysis Working Group of the MKUKUTA Monitoring System, Ministry of Finance and Economic Affairs

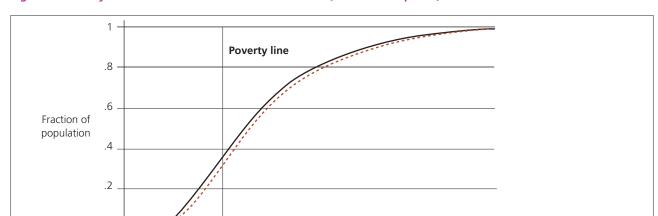
## POVERTY AND HUMAN DEVELOPMENT REPORT (PHDR) 2009

Chapter 2 of PHDR 2009 examined national progress in poverty reduction by comparing findings from the latest Household Budget Survey conducted in 2007 with the previous HBS in 2000/01. The analysis looked at household well-being from several different perspectives: household consumption levels, household expenditure patterns, asset ownership, and household occupation and place of residence.<sup>1</sup> This brief, the fourth in the series on PHDR 2009, summarises the principal findings of the analysis and assesses progress towards national poverty reduction targets.

#### **Household Consumption**

The level of household consumption changed little between 2000/01 and 2007. Nationally, household consumption per capita increased by only 5%, implying an average change of 0.8% annually. Figure 1 shows that the two distribution curves are very close together, illustrating that consumption levels have changed very little from 2000/01 to 2007. The data also show that almost 98% of Tanzanians have extremely low consumption levels, less than TShs 30,000 per month (at 2001 prices), which is equivalent to TShs 58,000 in 2007 prices. Moreover, approximately 80% consume less than TShs 20,000 per month (at 2001 prices) or TShs 38,600 in 2007 prices, which is equivalent to TShs 1,380 per day.

At the same time, consumption inequality remained at close to the same level – the poorest quintile of households experienced a small fall in consumption (-2%), while the least poor group experienced a slight increase (7%).



20000

----- 2007

30000

Figure 1: Poverty Incidence Curves for 2000/01 and 2007 (at 2001 Tshs prices)

10000

Source: Hoogeveen & Ruhinduka, 2009

Consumption per adult equivalent

- 2001

The analysis looks solely at the income-related aspects of household well-being, and does not consider important non-income aspects, such as health, education and water services.

Figure 1 illustrates the narrow range of consumption of the large majority of Tanzanian households indicating low levels of consumption inequality. This is reflected by the Gini coefficient of 0.35 in 2007, which shows that inequality in Tanzania is low from an international perspective and has hardly changed since 2000/01. With little overall growth in consumption and little change in the distribution, there has been little change in poverty rates.

#### **Poverty Rates**

Individuals are considered poor when their consumption is less than the 'basic needs poverty line'.<sup>2</sup> This indicator is based on the cost of a basket of food plus non-food items. Housing, consumer durables and telecommunications are not included, nor are health and education expenses. The poverty line basket was valued using prices collected in the 2000/01 survey. At that time the poverty line was TShs 7,253. Between 2000/01 and 2007, prices of goods and services in the basket increased by 93%, so the poverty line in 2007 is TShs 13,998.

Table 1 presents data on the percentage of the population below the basic needs poverty line or 'poverty headcount' by area of residence.

Table 1: Population Share and Poverty Headcount, by Area of Residence, 2000/01 and 2007

Area of Residence	Populat	tion share	Poverty headcount		
	2000/01	2007	2000/01	2007	
Dar es Salaam	5.8	7.5	17.6	16.4	
Other urban	13.8	17.7	25.8	24.1	
Rural	80.4	74.5	38.7	37.6	
Tanzania Mainland	100.0	100.0	35.7	33.6	

Sources: HBS 2007 and Hoogeveen et al., 2009

Between 2000/01 and 2007, the poverty headcount in Tanzania Mainland fell by just over 2 percentage points from 35.7% in 2000/01 to 33.6% in 2007. The reduction in poverty rates by area of residence is even smaller: 1.2 percentage points in Dar es Salaam, 1.7 percentage points in other urban areas and 1.1 percentage points in rural areas.<sup>3</sup> The decline in the poverty headcount is not statistically significant at the 95% level of confidence. This holds for each residence strata and for the Tanzania Mainland overall, indicating that poverty did not decline over the period.

Because the population continued to grow, the absolute number of poor Tanzanians increased by 1.3 million between 2000/01 and 2007.<sup>4</sup> Based on the projected population of 38.3 million in Mainland Tanzania in 2007, the total number of poor people is estimated to be 12.9 million.

Poverty lines are calculated on consumption per adult equivalent per 28 days.

The reason why the overall poverty headcount falls by more than the fall in each of the residence strata is due to the increase in the share of the population that resides in urban areas. Some of this increase is due to population increases and migration from rural to urban areas, but some of it is due to the use of different sampling frames by the two household budget surveys. Had the population weights in 2000/01 been more in line with the 2002 census then the decline in poverty would have been approximately half a percentage point less.

<sup>4</sup> Based on population projections in Economic Survey 2007 (Table 33). For 2000/01 the average was taken of the population in 2000 and 2001.

45 40.8 38.<del>7</del> 37.6 38.6 40 35.7 33.6 35 28.7 28.1 25.8 24.1 30 % of 25 Households 17.6 16.4 20 15 10 5 n Mainland Tanzania Dar es Salaam Other urban areas Rural areas Area of residence 1991/92 2000/01

Figure 2: Percentage of Households Living in Poverty in Mainland Tanzania, 1991/92 to 2007, by Area of Residence

Source: HBS 2007

#### **Progress Towards National Poverty Reduction Targets**

MKUKUTA's target is to reduce the number of Tanzanians living in poverty by 50% from 1990 to 2010, and Millennium Development Goal 1 (MDG1) aims to achieve this reduction by 2015. In 1991/92 the poverty head count was 38.6%, so the objective is to reduce poverty to 19.3%.

The MKUKUTA target to halve poverty by 2010 is out of reach, and achieving MDG1 is extremely ambitious even though a relatively large proportion of households have consumption levels not far below the basic needs poverty line. If it were possible to move these households across the poverty line, the MDG objective might be achieved. However, to achieve this goal, consumption levels must increase significantly. An annual real consumption growth of 3.2% per capita will be needed, compared with the 0.8% which has been achieved from 2000/01 to 2007. This is not impossible but will require unprecedented real consumption growth in Tanzania between now and 2015. Since Tanzania's level of income inequality is currently low, even by international standards, redistribution of income is not likely to be effective in achieving significant reductions in poverty. Continued high rates of economic growth over the long term will be required.

#### **Household Expenditure Patterns**

Another way to assess household well-being is by assessing changes in household expenditure patterns, including changes in the proportion of total expenditure that a household uses for food. Typically, a drop in the food share in total household consumption is associated with an improvement in the level of household well-being. Data from the HBS indicate that the food share in total consumption declined from 62% to 59% from 2000/01 to 2007. Further analysis shows that, between 2000/01 and 2007, there was a decline in the share of food in total consumption at all levels of income/consumption. This downward shift occurred in each of the three residence strata, though much more strongly among urban households, especially those in Dar es Salaam. These results suggest that the well-being of Tanzanian households may have improved.

#### **Asset Ownership**

Beyond household consumption and expenditure patterns, asset ownership is an important measure of household well-being.

#### **Consumer Durables and Quality of Housing**

In particular, data from HBS 2007 show increases in ownership of specific consumer durables and improvements in housing conditions across all wealth quintiles, and in both rural and urban areas. This was largely the result of falling prices for these assets which enabled Tanzanians to buy more for less money. In part, this reflects the positive change to a more liberalised market environment in Tanzania.

Table 2 presents ownership levels for six selected items. Ownership of (mobile) telephones boomed. By 2007, a quarter of all households owned at least one telephone, and in Dar es Salaam, two-thirds of households owned a telephone. This is consistent with increases of household expenditure on telecommunications. Ownership of mosquito nets doubled<sup>5</sup>, and ownership of radios and bicycles increased considerably. Ownership of televisions increased over three-fold, though ownership is largely confined to the least poor households and urban areas, notably Dar es Salaam.

Table 2: Percent of Households Owning Consumer Durables, by Wealth Quintile and Residence, 2000/01 and 2007

Wealth Quintile	Radio		Telephone (any)		Television	
	2000/01	2007	2000/01	2007	2000/01	2007
Poorest	35.7	47.9	0.1	6.5	0.2	0.7
2 <sup>nd</sup>	43.2	60.8	0.1	11.3	0.3	1.5
3 <sup>rd</sup>	53.4	68.9	0.4	21.8	1.4	4.9
4 <sup>th</sup>	57.3	72.4	0.8	34.5	2.0	9.7
Least Poor	70.7	79.8	4.7	50.5	8.9	24.4
Area of Residence						
Dar es Salaam	79.6	79.1	9.8	66.6	20.1	40.3
Other urban	71.5	73.3	2.9	43.3	7.0	15.8
Rural areas	45.7	62.2	0.2	14.3	0.2	1.8
Tanzania Mainland	51.9	66.2	1.2	25.0	2.6	8.2

Table 2: continued

Wealth Quintile	Mosquito Nets		Motor vehicle		Bicycle	
	2000/01	2007	2000/01	2007	2000/01	2007
Poorest	23.0	58.0	0.2	0.0	29.8	34.6
2 <sup>nd</sup>	29.4	61.7	0.2	0.3	37.0	43.2
3 <sup>rd</sup>	35.9	68.7	0.5	0.2	41.0	42.5
4 <sup>th</sup>	41.4	74.6	1.6	0.8	34.1	44.7
Least Poor	56.7	80.5	3.8	4.2	39.0	37.0
Area of Residence						
Dar es Salaam	79.6	92.6	5.9	4.8	11.6	12.9
Other urban	66.3	84.1	2.2	2.2	34.3	35.9
Rural areas	27.9	61.3	0.7	0.3	38.4	45.4
Tanzania Mainland	37.1	68.9	1.3	1.1	36.0	40.5

Sources: HBS 2007, Hoogeveen et al., 2009

<sup>&</sup>lt;sup>5</sup> See also Brief 2 which reports significant improvements in coverage of insecticide-treated nets.

Table 3 shows that housing conditions also improved across all wealth quintiles and all residence strata, particularly in rural areas, reflected in increased percentages of households with non-earth flooring and durable walls and roofs.

Table 3: Percent of Households with Improved Housing Construction, by Wealth Quintile and Residence, 2000/01 and 2007

Wealth Quintile	Non-earth floor		Durable walls*		Durable roof**	
	2000/01	2007	2000/01	2007	2000/01	2007
Poorest	10.4	11.3	13.0	19.0	24.7	35.2
2 <sup>nd</sup>	12.6	16.4	15.4	23.2	29.0	45.7
3 <sup>rd</sup>	20.9	29.6	23.3	31.9	41.7	54.8
4 <sup>th</sup>	31.5	40.9	29.1	41.3	52.8	65.8
Least Poor	50.0	60.8	42.6	54.9	69.8	76.6
Area of Residence						
Dar es Salaam	92.4	90.3	88.5	89.9	98.2	97.1
Other urban	61.0	61.9	38.3	50.6	83.7	84.6
Rural areas	12.5	15.6	16.7	21.9	31.2	42.0
Tanzania Mainland	25.2	31.8	24.7	34.1	43.6	55.6

Notes: \* Concrete, cement, stone; \*\* Concrete, cement, metal sheets, asbestos sheets, tiles

Sources: HBS 2007, Hoogeveen et al., 2009

Analysis of the HBS data shows that asset prices fell in real terms for those assets which show large increases in ownership, including radios, mosquito nets and watches. Whereas ownership levels declined for durable items that became relatively more expensive, such as books, cupboards, donkeys, land, houses and livestock. The consequence of these shifts between asset categories is that the overall value of assets owned by households did not change much between 2000/01 and 2007. Indeed, the total value of all assets owned declined slightly, whether expressed in 2000/01 prices or 2007 prices.

#### **Productive Assets**

The low level of productive asset ownership among rural households is striking; only 10% of rural households own a plough, and 41% own livestock other than poultry. Moreover, and contrary to the observed increase in ownership of consumer durables, data show a slightly smaller percentage of households owned productive assets in 2007 than in 2000/01. This also holds if the sample is restricted to households primarily engaged in farming.

#### **Household Occupation and Place of Residence**

Poverty remains an overwhelmingly rural phenomenon, particularly among crop-dependent households. The majority of Tanzanians remain engaged in agriculture but it is the least remunerative sector in the economy. The poverty rate for rural households (37.6%) is more than twice the rate for Dar es Salaam (16.4%). The combination of the large portion of the population engaged in agriculture and high poverty rates explains why three-quarters of the poor in Tanzania are dependent on agriculture (Table 4). Of the 12.9 million people who live in poverty in Mainland Tanzania, 10.7 million or 83% of the total reside in rural areas.

Table 4: Households in Poverty by Main Activity of Head of Household, 2000/01 and 2007

Activity of Head of Household	2000/01		2007		
	Headcount ratio	% of the poor	Headcount ratio	% of the poor	
Farming / livestock / fishing / forest	39.9	80.8	38.7	74.2	
Government employee	15.3	1.8	10.8	1.6	
Parastatal employee / other	8.1	0.3	10.9	0.7	
Employee – other	20.2	3.0	20.6	3.3	
Self employed / family helper	28.5	7.9	21.4	10.6	
Student	-	-	17.9	0.0	
Not active / home maker	43.1	6.2	46.2	9.6	
Total	35.7	100.0	33.4	100.0	

Sources: HBS 2007; Hoogeveen et al., 2009

Within agriculture there is little variation in poverty by type of crop grown. Among households whose main source of cash income is from the sale of food crops, 40% are poor, whereas 39% of households dependent on the sale of cash crops are poor. Those dependent on the sale of livestock and livestock products have a lower rate of poverty (around 30%).

Closer inspection of the distribution of income sheds light on the reason for such high poverty among people whose principal source of income is agriculture. Data in Table 5 reveals that total agricultural income is remarkably equally distributed across the five wealth quintiles. In 2007, the poorest households earned 15.9% of all agricultural income, whereas the least poor earned 20.3%. The difference in total income comes from the fact that better-off households earn a substantial fraction of their income outside agriculture, either as wages/salaries or through non-agricultural self-employment. The least poor 20% of households, earn 48% of all wage income and 46% of all income from self-employment. The poorest 20% of households on the other hand earn only 5% of all wage income and 4% of all income from self-employment.

Table 5: Distribution of Household Monthly Income by Source of Income, by Poverty/Wealth Quintile and Area of Residence, 2000/01 and 2007

Wealth Quintile	Salaries, wages, etc		Agricultural production		Self-employment	
	2000/01	2007	2000/01	2007	2000/01	2007
Poorest	3.9	4.7	12.7	15.9	5.6	3.9
2 <sup>nd</sup>	5.8	9.7	27.9	20.2	9.2	8.9
3 <sup>rd</sup>	12.5	13.3	20.0	21.9	13.8	18.4
4 <sup>th</sup>	18.3	24.3	16.8	21.7	24.9	22.5
Least Poor	59.5	48.0	22.7	20.3	46.4	46.3
Area of Residence						
Dar es Salaam	31.9	28.8	1.1	0.8	18.0	16.1
Other urban	30.4	35.6	8.9	10.8	36.4	37.8
Rural areas	37.7	35.6	89.9	88.4	45.6	46.1
Tanzania Mainland	100.0	100.0	100.0	100.0	100.0	100.0

Source: Hoogeveen et al., 2009

Households are diversifying out of agriculture seeking to improve their well-being. Indeed, diversification of income-generating activities is occurring across all wealth quintiles. As shown in Table 6, almost half of the poorest households and least poor households (46% and 48% respectively) have earnings from self-employment. However, there are large differences in the amount earned. The least poor households earn approximately eleven times more in non-farm self-employment than do the poorest households, and the incomes of the less poor have risen substantially in real terms, while incomes of the poorest have stagnated. It would appear that the less poor households are diversifying to take advantage of economic opportunities, while the poorest households are diversifying out of desperation and for survival. Data by residence indicates that rural households have made gains from non-farm self-employment between 2000/01 and 2007, but mean monthly incomes in rural households (Tshs 32,305) are still much lower than incomes among urban households (Tshs 108,053 for Dar es Salaam; Tshs 98,063 for Other Urban Areas).

Table 6: Percent of Households with Income from Non-farm Self-employment and Mean Monthly Income, 2000/01 and 2007 (in 2000/01 prices)

Wealth Quintile		2000/01	2007	% change	
	Percentage of households	Mean Monthly Income	Percentage of households	Mean Monthly Income	2000/01 to 2007
Poorest	36.2	10,853	46.0	10,891	0.4
2nd	43.5	14,662	51.7	22,253	51.8
3rd	43.9	21,912	54.3	43,894	100.3
4th	49.7	34,896	53.9	54,221	55.4
Least Poor	49.5	65,292	48.2	125,135	91.7
Area of Residence					
Dar es Salaam	46.9	81,850	51.0	108,053	32.0
Other urban	55.4	59,891	46.6	98,063	63.7
Rural	42.3	19,178	52.1	32,305	68.4
Tanzania Mainland	44.6	31,209	50.8	50,999	63.4

Source: Hoogeveen et al., 2009

#### **Key Policy Implications**

Findings from this analysis of household income and expenditure have strong implications for the development of the next phase of MKUKUTA. Tanzania faces a huge challenge to achieve MDG1 by 2015 but, encouragingly, from a policy perspective, a significant proportion of households have consumption levels not far below the poverty line.

Given that the majority of Tanzanians will continue to reside in rural areas and derive much of their livelihoods from agriculture, it is imperative that agricultural productivity is raised, not only directly to increase the incomes of rural households predominantly dependent on agriculture, but also to accelerate development of productive non-farm activities within the rural economy. Furthermore, since capabilities to identify and implement non-farm incomegenerating activities take time to develop, programmes have to be developed to nurture and sustain household capabilities for successful diversification.

#### References

Hoogeveen, J. & Ruhinduka, R. (2009). *Poverty reduction in Tanzania since 2001: Good intentions, few results.* Paper commissioned by the Research and Analysis Working Group (unpublished).

### The PHDR 2009 Brief Series

Brief 1 The Status of Economic Growth and Poverty Reduction in Tanzania

 Brief 2
 Progress Towards Improved Quality of Life and Social Well-being for All Tanzanians

 Brief 3
 Progress Towards Good Governance and Increased Accountability in Tanzania

Brief 4 An Analysis of Household Income and Expenditure in Tanzania
Brief 5 The Role of the State in a Developing Market Economy

The Poverty and Human Development Report 2009 and accompanying brief series are available in electronic copy, and the printed report can be obtained from: The Povert Eradication and Empowerment Division, Ministry of Finance and Economic Affairs, Dar es Salaam.

# The Poverty Eradication Division Ministry of Planning and Economic Affairs

E-mail: mkukutamonitoring@gmail.com www.povertymonitoring.go.tz

#### Research on Poverty Alleviation, REPOA

P.O Box 33223, Dar es Salaam, Tanzania Plot 157 Migombani Street, Regent Estate

Tel: + 255 (0) (22) 270 00 83 • Fax:+ 255 (0) (22) 270 57 38

Email: repoa@repoa.or.tz www.repoa.or.tz

