

The Level and Structure of Rural Household Income in Mozambique



Presented at the Workshop

"Evaluating Options for Agricultural Growth and Poverty Reduction in Mozambique, Focusing on Specific Interventions" (translated name)

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Contents of the Presentation

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- Methodology: The National Agricultural Survey (TIA) and the estimation of income and its components
- Some key characteristics of rural households
- The levels of income and their structure
- Strategies to increase income and food security

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Objectives

Share the results of the analyses of rural income in response to the following questions:

- What were the changes in the composition of income among households in 2002 and 2005?
- Based on the analyses, what types of investments are relevant for the improvement of income and food security?

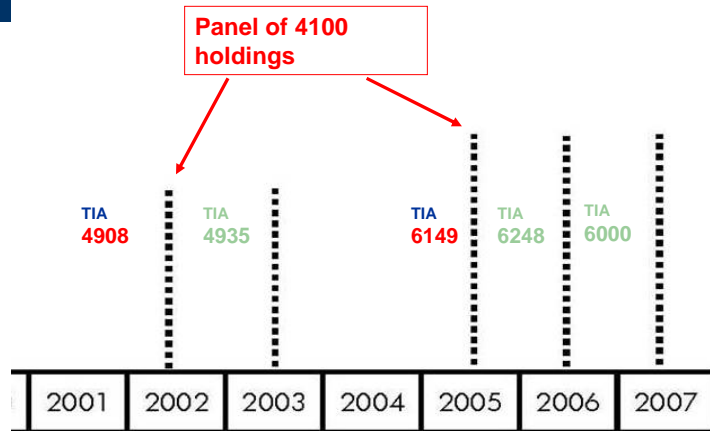
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Methodology (1) – Data sources

- Principal sources of data: TIA 2002, TIA 2005 and SIMA
 - TIA 02 designed as a survey of rural economies
 - TIA 05 designed to represent the 2005 population and include a complete panel of the 2002 households

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Figure 1. TIA 2002 and 2005 included modules on income sources



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TIA Data

- Selected themes:
 - Demography (including mortality)
 - Crop production and commercialization
 - Land and other assets
 - Livestock
 - Agricultural technology and adoption
 - Selected indicators of household food security
 - Agricultural and non-agricultural income (2002, 2005)

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Methodology (2) – Data analysis

- Definition of total liquid income
 - Value of crop production minus paid-out inputs, sales of animals, meat, eggs, sales of vegetables and fruits and net non-agricultural income
- Rural price deflator –
 - Based on a fixed basket of food items for each poverty zoned defined in the 2002/2003 IAF e SIMA retail prices for 2001/02 and 2004/2005
- Sampling adjustments and correction for attrition bias

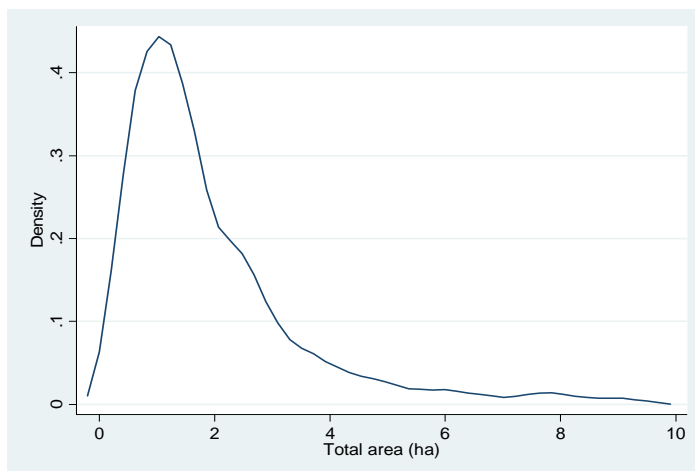
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Selected household characteristics

- Ownership of productive assets
- Use of improved inputs and access to public goods

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F- 2: Distribution of small and medium land holdings



Source: Boughton et al. 2007. Market Participation by Rural Households in a Low-Income Country: An Asset-Based Approach Applied to Mozambique

T-1. Use of improved technologies (TIA 2002 and TIA 2005)

Income quintiles 2002 and 2005	Animal Traction		Chemical Fertilizers	
	2002	2005	2002	2005
1 (Lowest)	8.4	6.2	1.5	1.7
2	10.3	7.6	3.1	3.0
3 (Median)	9.1	7.6	2.3	4.0
4	9.7	9.0	4.2	3.1
5 (Highest)	18.6	16.1	7.5	6.7
Total	11.2	9.3	3.7	3.7

Fonte: Mather et al (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

T- 2. Use of improved technologies, % of households (TIA 2002 and TIA 2005)

Income quintiles 2002 and 2005	Non-manual irrigation		Improved varieties
	2002	2005	2005
1 (Lowest)	0.4	0.4	4.7
2	1.1	0.7	4.8
3 (Median)	1.7	1.1	6.6
4	0.7	1.3	7.3
5 (Highest)	2.2	2.0	9.7
Total	1.2	1.1	6.6

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

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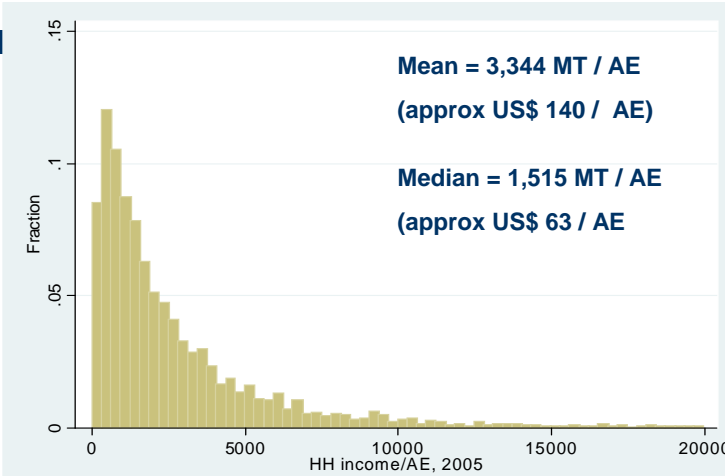
T- 3. Access to public goods, % of households (TIA 2002 and TIA 2005)

Income quintiles 2002 and 2005	Price information		Extension	
	2002	2005	2002	2005
1 (Lowest)	24.0	28.0	8.7	10.5
2	29.5	36.6	12.3	11.0
3 (Median)	36.8	42.3	14.1	14.6
4	41.6	46.2	15.8	18.8
5 (Highest)	40.7	48.4	16.8	18.8
Total	34.5	40.3	13.5	14.8

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

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F- 3: Distribution of household incomes (per adult equivalent), 2005



Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

T- 4 Percent change in MEAN household net income per adult equivalent 2002 and 2005 (panel)

Income quintiles	2002 MT/AE	2005 MT/AE	% change
1 (Lowest)	445	347	-22
2	1,053	924	-12
3 (Median)	1,766	1,739	-2
4	2,855	3,178	11
5 (Highest)	8,420	10,573	26
TOTAL	2,908	3,351	15

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

T - 5 Contribution of agriculture and livestock to total net household income (%)

Income quintiles 2002 and 2005	Agricultural income	
	2002	2005
1 (Lowest)	87.1	80.7
2	84.9	77.3
3 (Median)	83.2	72.1
4	76.4	66.7
5 (Highest)	55.3	49.4
Total	77.4	69.3

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

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T - 6 Market participation, 2005

Income quintiles	% of income from crop production	% HH that retained food crop production	% HH that sold food crops	% HH that sold high-value crops
1 (Lowest)	72	93	33	19
2	70	98	49	28
3 (Median)	66	98	52	33
4	61	96	56	38
5 (Highest)	46	95	54	40
TOTAL	63	96	49	32

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005

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T - 7. Composition of crop income, 2005

Income quintiles	Mean crop income (MT / AE)	% food crops prod'n retained for home consumption	% Sales of food crop production	% sales of high-value crops
1 (Lowest)	250	86	9	5
2	650	84	10	7
3 (Median)	1144	83	9	8
4	1945	83	8	9
5 (Highest)	4905	81	8	10
TOTAL	2114	83	9	8

Fonte: Mather *et al* (forthcoming) Household income and asset dynamics in rural Mozambique, 2002-2005 17

T – 8 Poverty dynamics, 2002 – 2005, selected provinces

Province	Poverty categories (incidence)				Total
	Stayed poor	Escaped from poverty	Became poor	Stayed non-poor	
Nampula	52.0	14.0	19.3	14.8	100.0
Zambezia	51.9	17.6	17.0	13.5	100.0
Manica	60.0	14.7	9.7	15.6	100.0
Sofala	38.8	28.4	11.2	21.6	100.0
National	52.2	17.8	14.7	15.3	100.0

Fonte: Cunguara, Benedito (2007). Pathways out of poverty in rural Mozambique.

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Strategies to increase household income and food security (1)

- Increase the availability and access to improved technologies through:
 - Investment in agricultural research
 - Basic food crops
 - Cash crops
 - Strengthening the partnerships among the private sector, NGOs and the public sector in the development and transfer of technologies
 - Seed sector
 - Technology adapted to socio-economic conditions and agro-ecological zones

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Strategies to increase household income and food security (2)

- Establish and promote agricultural markets
 - Product markets (food and cash crops)
 - Input markets
 - Rural financial markets
- Gain better understanding of the access mechanisms and accumulation of productive assets by rural households
 - Recognize the links between basic food crop incomes, food security needs and the possibilities for acquiring new technologies and products

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Muito obrigado!

