

Food Security In Mozambique

MSU- FOOD SECURITY III/MZ PROJECT



A Presentation to the US Government
Accountability Office (GAO)
Evaluation Team, November 14, 2007

**Presented
by:**

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Objectives

To share with the team key results from rural income analysis to inform the following questions:

- How much progress has been made in rural poverty reduction over the past decade?
- What changes have occurred in the composition of rural household income?
- Looking forward, what investments and strategies are most relevant for improving food security in the medium term?

Outline of the Presentation

- Brief overview of MSU Food Security Project objectives and areas of work
- Background on rural household income surveys (TIA)
- Food security and vulnerability context in Mozambique
- Changing patterns of rural household income and food security
- Implications for strategies to achieve food security

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Goal of MSU project in Mozambique

- To support public sector efforts to raise productivity and cut hunger for rural smallholder families through:
 - Expanding the availability of appropriate crop, livestock and natural-resource management technologies
 - Accelerating the uptake of those technologies by strengthening policy institutions and market information services
- Human and organizational capacity building approach

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Trabalho de Inquérito Agrícola TIA

National Agricultural Survey

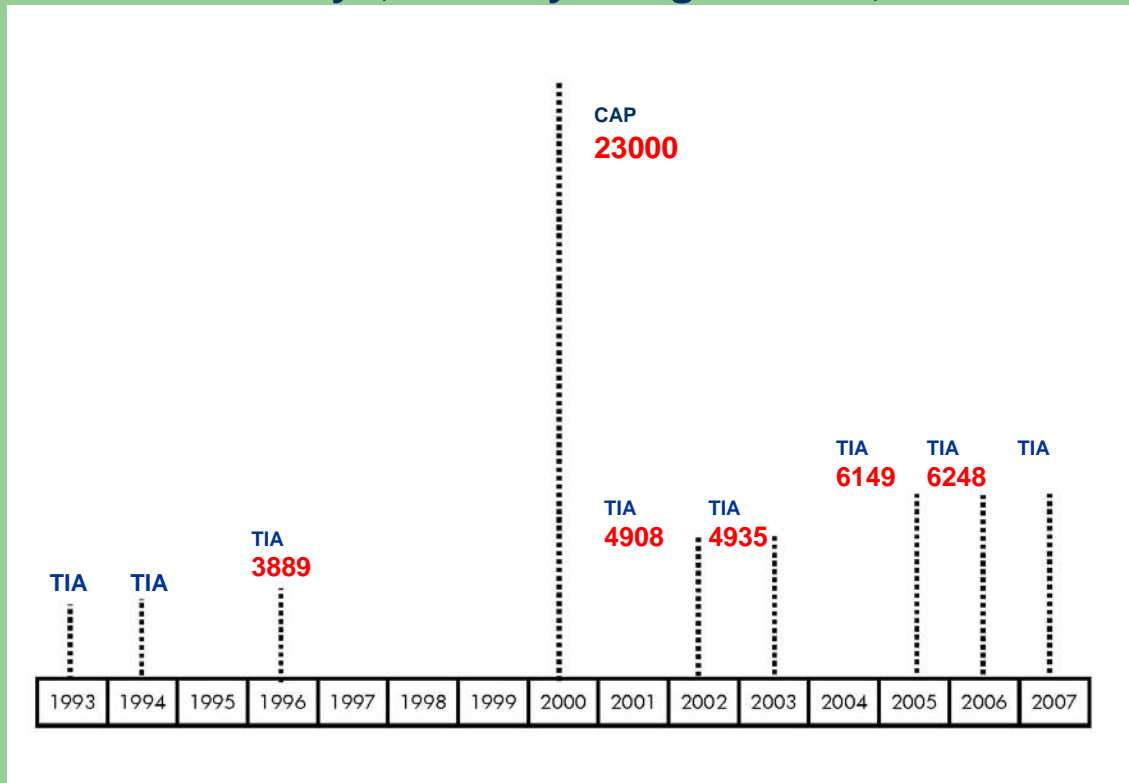


Content of TIA

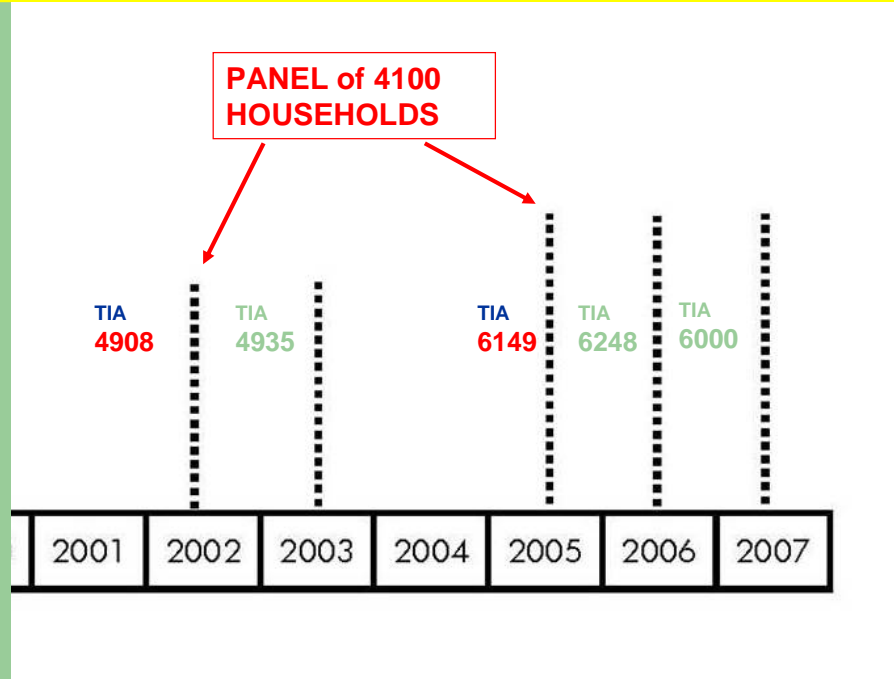


- Households demographics (labor)
- Agriculture production and marketing
- Land and other assets
- Livestock holdings
- Agricultural technology use
- Selected food security indicators
- Non-farm income sources (2002 and 2005)
- Adult mortality and morbidity (2002, 2003, and 2005)

National surveys, Ministry of Agriculture, 1993-2007



TIA 2002 and 2005 included detailed income modules





Current Coverage, TIA07

94 districts

6.000+ households interviewed

3.6 million households represented

TIA Data Users

- Government of Mozambique (MINAG, MPD, INE, SETSAN)
- Donor community
- USAID-funded PVOs (monitoring and evaluation)
- NEPAD CAADP (via ReSAKSS)
- Universities (Moz and elsewhere)
- Local think tanks and consultants

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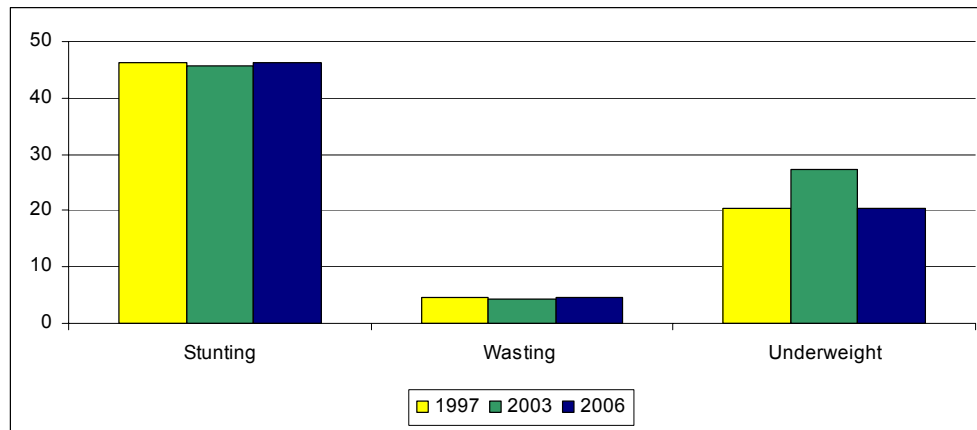
Food Security in Mozambique

- Availability
- Access
- Utilization



- Food Security Outcome: Sufficient food during all periods to meet household and individual dietary needs for a productive and healthy life
- Vulnerability to food insecurity → inadequate nutrition

Nutritional indicators: Children 6-59 mos. 1997 and 2003



Note: 1997 figures are urban and rural combined. 2003 and 2006 Rural children only.

Source: ORC Macro, Nutrition of Young Children and Mothers in Mozambique, 2006 and SETSAN Vulnerability Baseline 2006.

Factors underlying slow progress in meeting food security goals

- Poor availability and access to food
 - Vulnerable household production systems
 - Lack of household income to purchase food
- Health and nutrition
 - Contaminated water supplies leading to diarrhea, cholera, parasites
 - Nutrition-related health problems
 - HIV/AIDS, malaria and other diseases

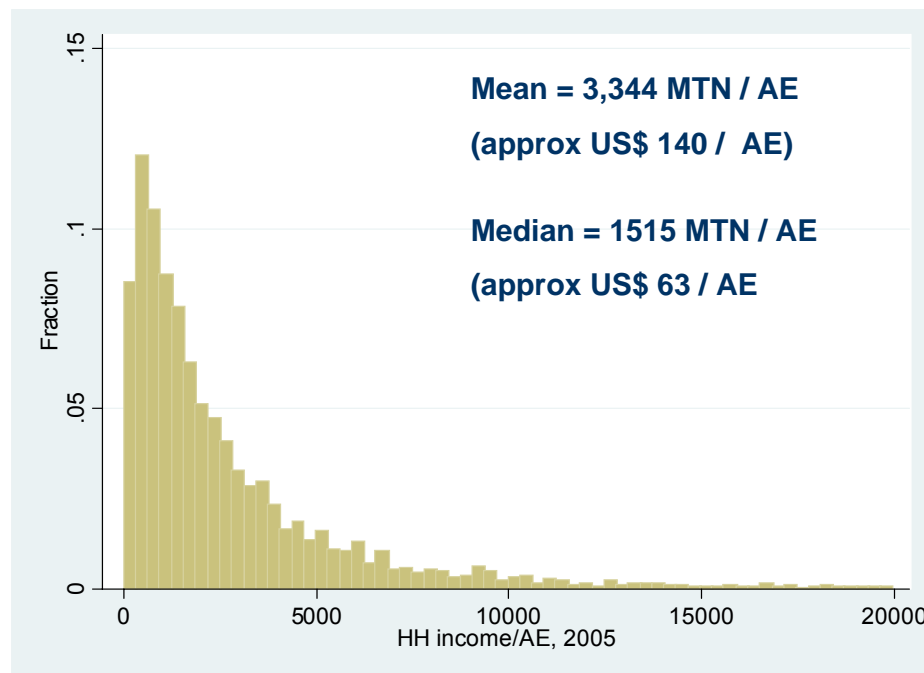
HIV/AIDS and Agriculture

- Impacts of adult deaths on rural households are varied
 - Death of male household head:
North/Center: crop income loss of 25%
South: non-farm income of 88%
 - Lower assets and lower labor availability in certain households
 - Lowered production of macronutrients in households with a recent male death
- Interventions need to vary according the constraints and opportunities of the affected households
- Is HIV/AIDS just a health problem? No funding for cross-cutting research (PEPFAR and IEHA gap)

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Distribution of Household Income per Adult equivalent (AE), 2005



Change in mean household income per adult equivalent 1996-2002 and 2002-5 (%)

Y Quintile	1996-2002	2002-2005
1 (low)	63	-22
2	37	-12
3 (med)	31	-2
4	38	11
5 (high)	88	26
TOTAL	65	15

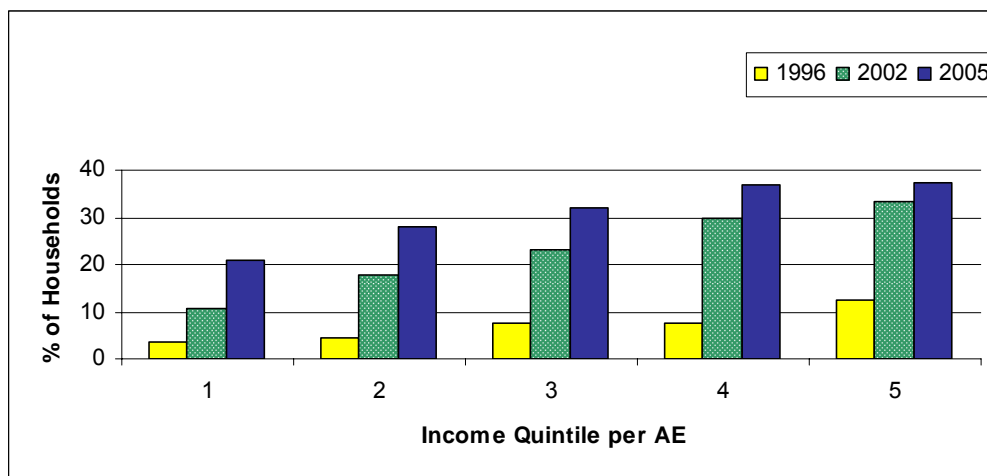
Source: TIA 96; TIA 02; TIA 05

Change (%) in median household income per adult equivalent 1996-2002 and 2002-5

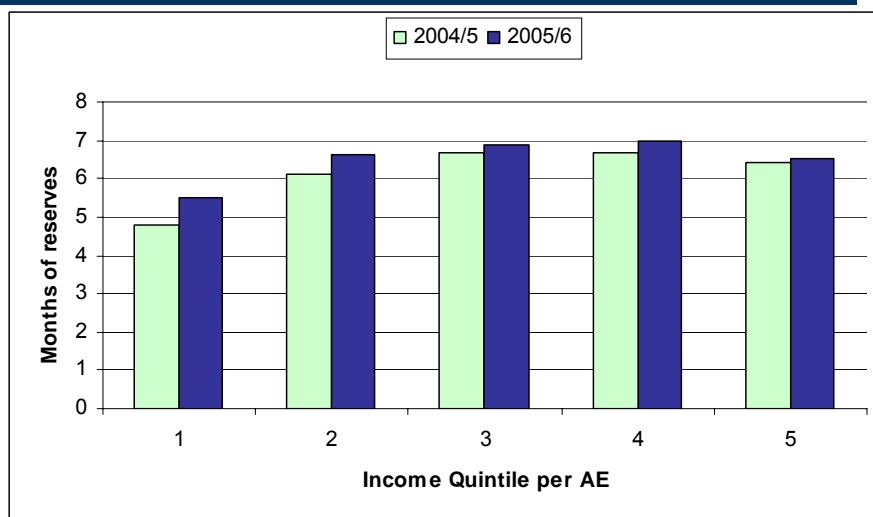
Y Quintile	1996-2002	2002-2005
1 (low)	66	-25
2	39	-14
3 (med)	30	-1
4	37	11
5 (high)	59	17
TOTAL	30	-1

Source: TIA 96; TIA 02; TIA 05

Bicycle Ownership 1996, 2002 and 2005



Months of household reserves of basic staple

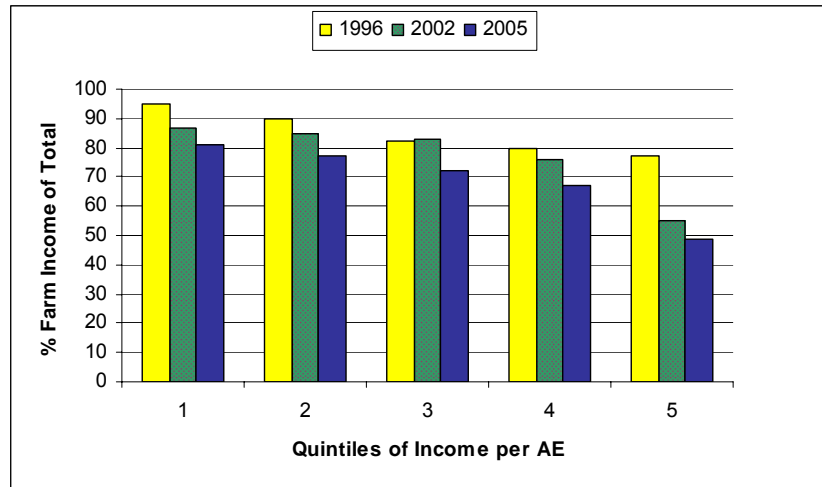


Food Security and Incomes: Households Experiencing Hunger (percent)

Y Quintile	2004/5	2005/6
1 (low)	52	47
2	41	41
3 (med)	37	38
4	35	32
5 (high)	28	29
TOTAL	39	37

Note: 2004/5 quintiles reported income; 2005/6 quintiles predicted income

Share of farm income in total net household income (%)



Household participation in crop markets 2005

Y quintile	Crop share in HH Y	% HH who retain food	% HH who sell food	% HH sell high value
1 (low)	0.72	93	33	19
2	0.70	98	49	28
3 (med)	0.66	98	52	33
4	0.61	96	56	38
5 (high)	0.46	95	54	40
TOTAL	0.63	96	49	32

Crop income share by crop market 2005

Y quintile	Mean Crop Income (MTN / AE)	% share of retained food crops	% share of sold food crops	% share of high value crops
1 (low)	250	86	9	5
2	650	84	10	7
3 (med)	1144	83	9	8
4	1945	83	8	9
5 (high)	4905	81	8	10
TOTAL	2114	83	9	8

Household use of improved crop production practices 2005

Y quintile	% buying improved seed	% row planting	% crop rotation	% access to credit
1 (low)	4.7	34	34	1.9
2	4.8	39	36	2.9
3 (med)	6.6	40	38	3.2
4	7.3	47	38	3.9
5 (high)	9.7	51	40	5.8
TOTAL	6.6	42	37	3.5

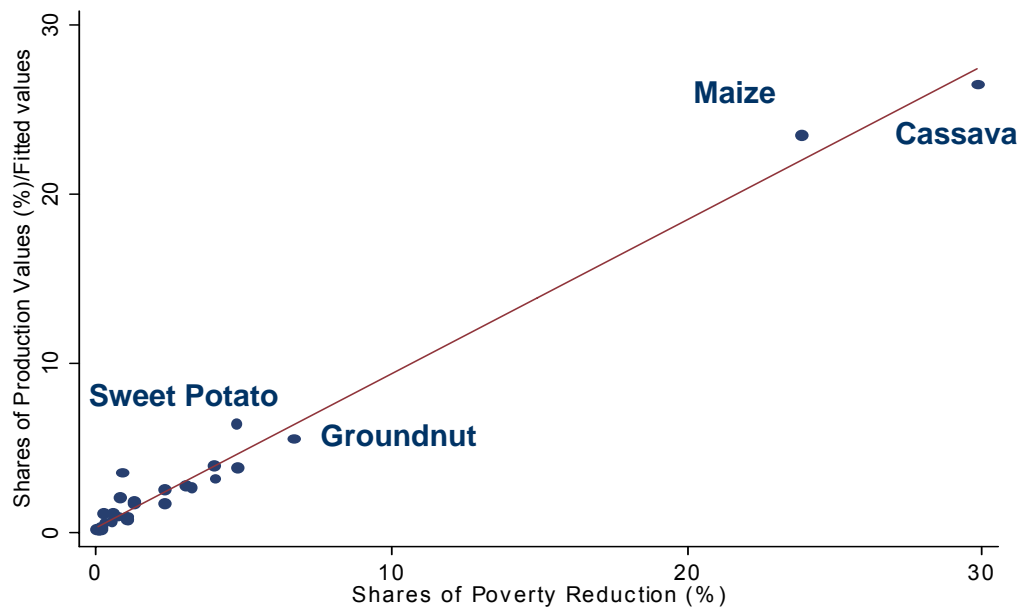
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Strategies to achieve food security

- Need to raise labor productivity in staple foods
 - Through increasing yields rather than area expansion
 - Reducing vulnerability to drought, disease and insect attack

Potential for poverty reduction through technology development

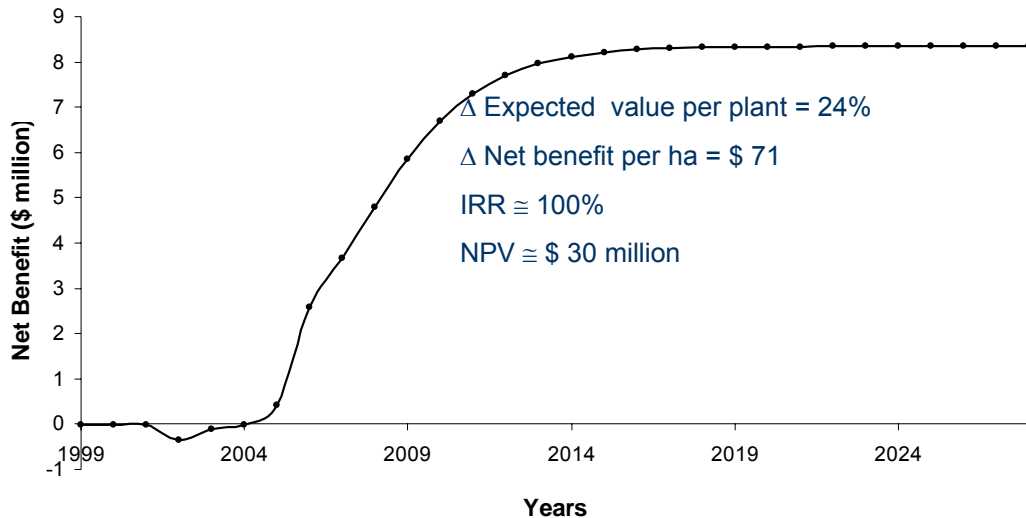


Source: Walker et al, Research Report no 3E. 2006

Strategies to achieve food security (continued)

- Increased availability of and access to improved technologies
 - Investment in agricultural research
 - Strengthening partnership between private sector, NGO's and public sector in technology development and transfer

Expected Economic impact of USAID-funded multiplication and distribution of CBSD-tolerant cassava variety in Nampula



Source: Walker et al, 2006

Strategies to achieve food security (continued)

- Increased productivity in food staples will provide a foundation for crop diversification and increased market participation
USAID-funded PVOs are playing an important role in facilitating this transition
- Continued off-farm income diversification is a necessary complement to increased value of crop production (shock absorber in drought)

Muito obrigado!

