

The Impact of HIV and AIDS on Agriculture and Food Security: *Focus on household vulnerability*

A Case study in Limpopo Province, South Africa

P.Chaminuka, L.K. Debusho, F. Anim & S.Nqangweni
University of Limpopo and University of Pretoria

Definition in context

- Household vulnerability is the extent to which HIV/AIDS and other factors affect a household's food security status, and the household's ability or inability to withstand the shock caused by these factors

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Background

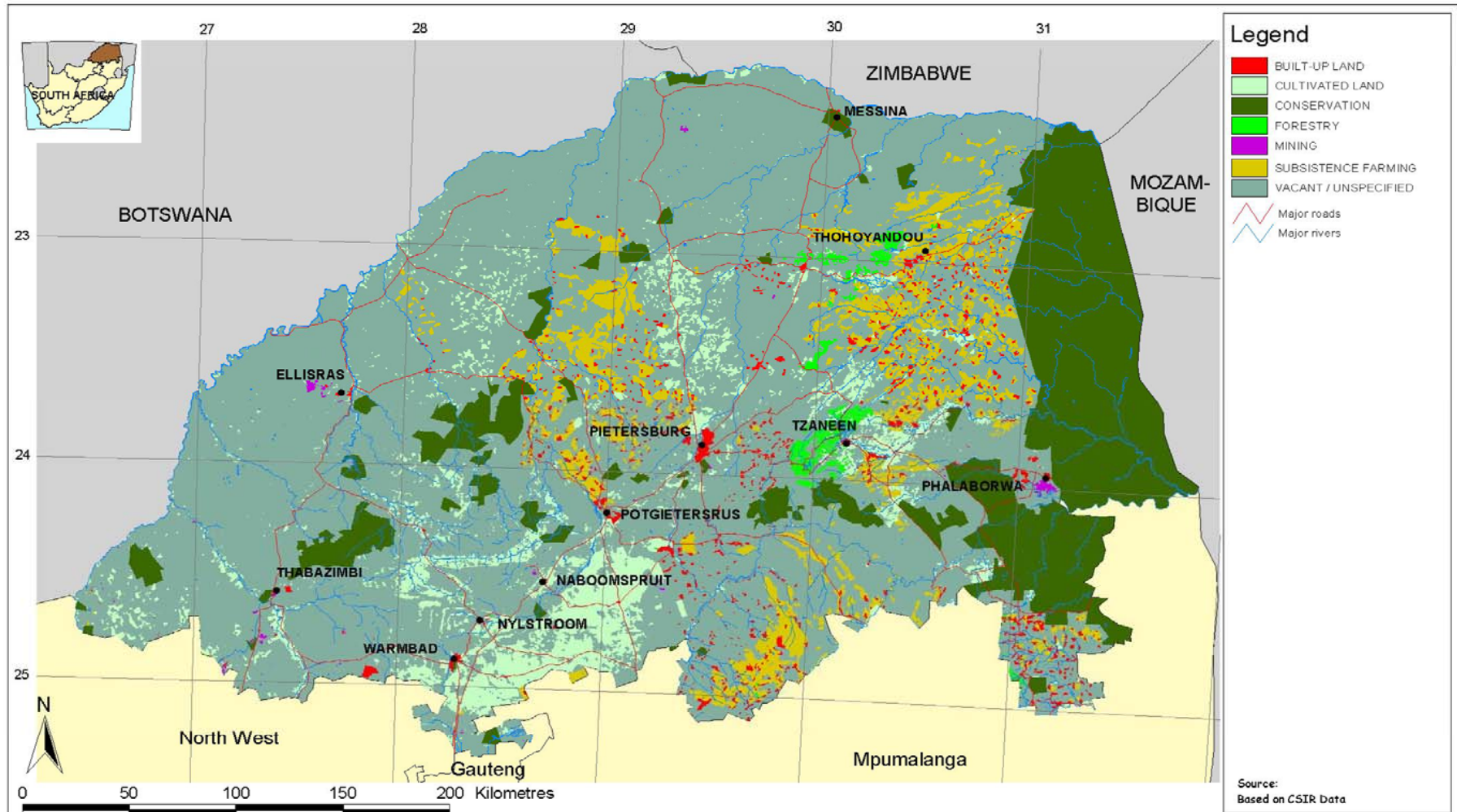
- One-third of the global population living with HIV is in sub-Saharan Africa.
- SA hosts about 5 million people living with HIV/AIDS, at least 250,000 die each year
- About 35% of South Africa's population is estimated to be vulnerable to food insecurity (de Klerk, *et al.*, 2004).
- Agriculture and related industries contributes about 13% to GDP and provide livelihoods to about 40% of population.

The Problem

- Lack of quantitative data on impacts, mostly descriptive in nature and reliant on cross sectional analysis.
- Existing data does not allow comparison with other states in the SADC region to facilitate collective action at regional level.
- Extent of impact not differentiated between groups of households

Research Objectives

- Investigate the impacts of the pandemic on agricultural production and household food security.
- Determine the vulnerability of households to food insecurity and estimate the extent to which HIV/AIDS affects the vulnerability of households.
- Describe mitigation and coping strategies adopted by households



GENERAL INFORMATION
 Gwen Breedlove(UP):
 gbreedlo@postino.up.ac.za
 Fiona Fraser(DEAT):
 ffraser@ozone.pwv.gov.za

Environmental Potential Atlas for the Northern Province LAND USE

July 2000



STUDY AREA AND METHODOLOGY

- Area- Capricorn District, Limpopo Province, South Africa.
- Purposive selection of villages
- Seven Villages,
- Non affected- (100 hhlds)
- Affected (118 hhlds)
 - Morbidity
 - Mortality
 - Hybrid
- Stratification, 240 households
- Surveys, Focussed Group Discussions

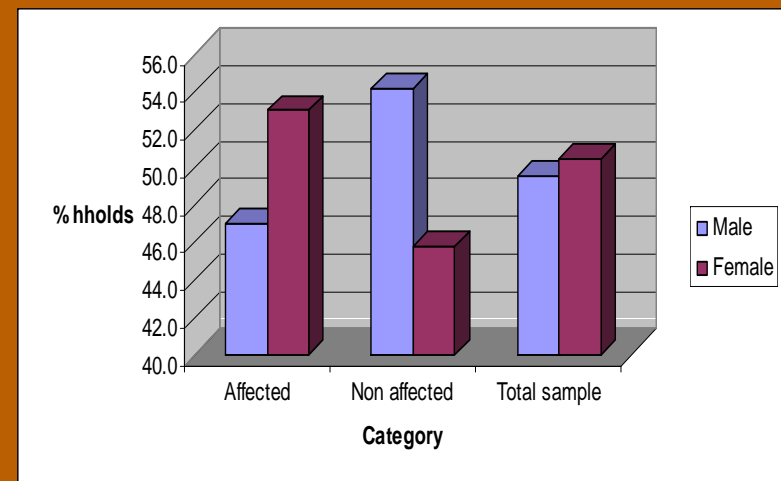
DATA ANALYSIS

- Descriptive statistics
- Multiple linear regression
- Multiple LOGIT
- ANOVA
- The Household vulnerability index (HVI) - to determine the extent to which different households are vulnerable to food insecurity.

HVI Computation

- Variables from the survey data grouped into different clusters corresponding to the impact areas of HIV/AIDS.
- Four main dimensions of the livelihood assets affected are
 - Human capital
 - financial capital
 - social capita and
 - physical capital

Research Findings



Findings continued

Key indicators mean	Household category		
	Not Affected	Illness	Death
Dependency ratio	0.44	0.45	0.45
Hours lost per household per day	0.34	6.24	7.13
Purchased Agricultural Inputs	R194.94	R135.28	R106.85
Labour input into agriculture	8.55 hours	7.87 hours	7.30 hours
Cultivated land area 2004	1.433 ha	1.103 ha	1.060 ha
Change in land under cultivation 2003-2004	0.025 ha	-0.173 ha	-0.446 ha
Maize produced in tonnes	0.487	0.410	0.362

Findings: HIV/AIDS and household income and expenditure

Average	Household category		
	Not Affected	Illness	Death
Income of the household per adult	R311	R306	R245
Medical expenditure per household/yr	R306	R1114	R2290
Food Expenditure	R4538	R4179	R3955
Education expenditure	R761	R623	R440

HOUSEHOLD VULNERABILITY ANALYSIS

- The aggregated levels of vulnerability used in the analysis are;
 - **Coping Households (CHH)** – a household in vulnerable situation but still able to cope
 - **Acute Level households (ALH)** – a household that has been hit so hard that it badly needs assistance to the degree of an acute health care unit in hospital. With some rapid-response type of assistance the family may be resuscitated.
 - **Emergency Level Households (ELH)** – the equivalent of an intensive care situation – almost a point of no return – but could be resuscitated only with the best possible expertise

Household Vulnerability Index

HVI level	HVI Range	Situation of Household	Freq	Percent
Vulnerability Level 1-C	0.0 – 33.3%	<i>Coping Households (CHH)</i>	63	28.9
Vulnerability Level 2-A	33.4 – 66.7%	<i>Acute Level households (ALH)</i>	153	70.2
Vulnerability Level 3-E	66.8 –100%	<i>Emergency Level Households (ELH)</i>	2	0.9
Total			218	100.0

Reasons for high vulnerability

- Social grants thinly spread
- Low maize yields – dry area
- High unemployment
- Few livestock
- Transitory and chronic household food insecurity

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Coping and Mitigation Strategies

- Hiring of labour
- Seeking remittances from non-resident members and relatives
- Food parcels
- Assistance from home based care groups
- Seeking social grants
- Selling cattle

Why HIV/AIDS within AHEAD?

- Cross cutting issue- huge social & economic implications
- Labour impact- Livestock systems, Land use possibilities, Increased dependency on natural resources
- Animal health expenditure second to human health expenditure
- Look at diseases such as TB beyond the wildlife/livestock interface- Concept of ONE HEALTH

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