



Overseas Development
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Using Clusters: Some findings from a longitudinal study of the impacts of HIV/AIDS on livelihoods in Zambia

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Acknowledgments

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- **Inhabitants of Mpongwe and Teta**

Overview of presentation

- Background
- Methodology: Clusters
- Zambian context – 1993 to 2005
- Findings
- Some concs & policy recommendations

Background

- Few longitudinal studies looking at impact of HIV/AIDS on livelihoods
- Zambia 1993 returned to same areas in 2005
 - ✓ First study looked at the impacts of HIV/AIDS on livelihoods
 - ✓ Re-study to understand what had happened in terms of adaptability and resilience to HIV/AIDS
- Used same methodology, same team members...
- Uniqueness of this study was use of clusters
- Cluster analysis able to show vulnerability *and* resilience

Methodology - overview

- Two locations:
 - ✓ Mpongwe - close to the Copperbelt towns
 - ✓ Teta - remote rural area.
- Large multidisciplinary teams - agronomists, nutritionists, social scientists, health staff - including members living in the local areas
- Ten days were spent in the communities collecting and analysing data – iterative process
- Participatory methods - community meetings, in-depth interviews and focus group discussions

Methodology - clusters

- “A group of people between which there are multiple resource exchanges, usually based on the factors of kinship, labour and food exchange, and/or common access to draught power”
- Short-cut means of obtaining richness of anthropological and ethnographic method
- Moves away from household as unit of analysis, highlights complexity and fluidity of individual’s lives
- Helps to understand how individuals and households adapted or disintegrated because of ill health and AIDS

Methodology - clusters

- Clusters can consist of various households, usually living in the same geographical area
- They range in size from about 5 people (single HH) to about 20 people (multiple HHs)
- Types of people within cluster:
 - Primary Producer, Secondary Producer, Single Female, Dependent Producer, Income Earner ..
- Allow relationships between individuals of different generations and gender, marital and kinship statuses to be identified and understood

Methodology - clusters

- In 1993 study respondents selected through social mapping and wealth ranking exercises
- People in each wealth category were interviewed and through them other members of their clusters were identified and interviewed
- Typology of clusters developed according to resilience and vulnerability - continuum from commercial (Cluster type 1) to resource-poor (type 4)
- The 2005 re-study traced original clusters to see whether had changed status within continuum and to understand what had caused the moves

KAMINSA'S FARM

THERESA BWALYA (MOTHER) BORN 1934.

STEVEN KAMINSA (LATE HUSBAND) (DIED 1987)

(ACTING HEAD OF THE VILLAGE.)

ELINA KAMINSA (DAUGHTER)
CEPHUS KATUTA (SON IN LAW / HUSBAND)

CHILDREN - CEPHUS KATUTA
- TONIE (TWIN) "
- STEVEN KATUTA
- ABRAHAM "
- RABBECA "
- JAZEL "
- REDBUM "

PRODUCTION

YEAR	HA	CROP	PROD.	SALES
2003/4	2 acres	MAIZE	16	NIL
	3 acres	SORGHUM	-	NIL (BATTED WITH MAIZE)
		BEAN	-	-
		CASSAVA	-	-
		SWEET POT.	-	-

FOOD SECURITY AND IGA

- FOOD INSECURE
- NOT CREDIT WORTHY
- HUSBAND IS A BUILDER (GRAINERIES HOUSES CHICKEN SHELTERS)
- ICILIMBA DURING LAND PREPARATION

HEALTH

- MALARIA FEVER
- HEADACHE
- COUGHS
- GENERALLY HEALTH FAMILY.

HILDAH KAMINSA (DAUGHTER)
MIKE TIMBANI (SON IN-LAW) (LENJE TRIBE)

CHILDREN - JOAN TIMBANI
- GETRUDE "
- SUZEN (TWIN) "
- CLIFORD "

PRODUCTION

YEAR	HA	CROP	PROD.	SALES
2003/4	2 acres	MAIZE	11	NIL
	1 "	SORGHUM	-	-
2004/5	2 ha	MAIZE		
	1 acre	SORGHUM		

FOOD SECURITY AND IGA

- BARELY SECURE (11.50kg MAIZE for 2 chickens)
 - NOT CREDIT WORTHY
 - ICILIMBA DURING LAND PREPARATION
 - WIFE SELLS EXOTIC VEG.
 - PIECE WORK LABOUR
 - MIKE HAS BUILDING AND THATENING SKILLS
 - HAS CHICKENS AND DUCKS
- ## HEALTH
- MALARIA (PANADOL - go to HOSPITAL FOR TREATMENT)
 - COUGHS
 - FEVERS
 - HEADACHES

THERESA BWALYA
CHILDREN - BOAS KAMINSA

- ELINA "
- BINGITA " (MUSANGASHI WITH HUSBAND)
- BLACKSON " (MOVED TO KITWE)
- ELIZA " (KITWE WITH HUSBAND)
- MARIA " (IBONDWE WITH HUSBAND)
- HILDER " (

(MOVED OUT TO IN LAWSLAND)

PRODUCTION

NIL HOSPITALISED DUE TO ~~AGRI~~ ASTHMA.

2004/5 - MAIZE & SORGHUM

- SHE HAS 8 CHICKENS
- HAS WILD OKRA
- FEEDS ON PUMPKIN LEAVES

HEALTH

- OLD AGE
- ASTHMA
- o Food is just about enough
- o Type 4B
- o AIDS not a factor - family conflict has led to split



Zambian context: 1993-2005

- National level changes:
 - ✓ privatisation of the mines
 - ✓ public-sector restructuring
 - ✓ market liberalisation and removal of maize subsidies
 - ✓ population movements - rural to urban
 - ✓ decentralised health system, health user fees
 - ✓ AIDS prevalence increasing (25% urban, 13% rural)
- Local level changes:
 - ✓ Mpongwe made a district centre
 - improved road access and communications.
 - population increase
 - maize basket for the Province
 - ✓ Teta remained remote rural area
 - some outward migration
 - return to farming systems less reliant on maize

Findings

“AIDS reduces household members, gives extra responsibilities due to nursing, it increases poverty, and it increases vulnerability on the entire household as resources become over stretched, the number of orphans increase and it is difficult to look after orphans as they expect special care” (from young women’s FGD, Mpongwe)

Findings: Mpongwe

- 123 mortalities amongst the 35 (165 HHs) clusters
- 52 deaths (42%) were likely AIDS-related
- an average of 1.5 AIDS deaths per cluster
- area become a full fledged impact site with people contracting AIDS locally and succumbing to it
- yet, increase in maize production, also increasing inequality
- Crop diversity decreased, less dietary diversity
- Livestock disease

Findings: Teta

- 14 of the 19 (53 HHs) clusters experienced deaths
- probably 10 AIDS related deaths
- an average of 0.72 AIDS deaths per cluster
- less reliance on maize, return to traditional crops and increase in off-farm activities
- increased food diversity...nutritional balance
- Livestock disease but limited impact
- AIDS remains peripheral, some deaths but limited evidence that AIDS is contracted and spread within the area

“AIDS is here but perhaps our blood is strong”
(women in Teta)

Summary of changes in cluster classification - Teta

Name	Old	New	Comments
1. Gertrude Chisenga	3	3b	#1 and #2 are separate clusters but they are kin related. Gertrude uses 50kg bags of fertilizer and hires pieceworkers. There is some labour exchange between Gertrude and sister Lister (who is in CS#2) and food exchange when necessary.
2. Watson Sosola	3	3b	Uses hand-hoe and pieceworkers. Purchases fertilizer. Would hire oxen if available
3. Loveness Nkandu Laston Mangane (Father) Binwell Nkandu (brother)	3	3b	After the 1993 study Binwell moved to establish his own village, and Loveness moved there and died there. The cluster remains as one but is now geographically separated. They still share some resources: the care of an orphan, Gift. Binwell provides labour for father. Binwell is SP2 after Harold.
8. Moses Chisenga (lost)	3		Not traced: relatives or former land
9. Miselo Tayali	3	4a	In 1993 was marginal cluster type 3, as had retired with lump sum. Now hand-hoe, family labour. 2002/3 & 2003/4 fertiliser from PAM; 2004 : reduced to 10kg fert.
10. Paul Ngosa	3	4a	No longer access to draft power; moved to m-in-law; garden important.
15. Alice Chibale	3	3a	Maintained status: oxen died but managed to replace, through remittances from town based children
17. Eliza Mwape	3	4b	SPs less food secure. Hire out as p/w. Care of orphans.
18. Patrick Muleba	3	3b	Lost oxen; ha under mz gone down; hire piecework, m/g for fertilizer, small-stock, fish pond and bee-keeping
4. Gosheni Chibuye Green Chibuye (father)	4a	4a	No fertilizer use, no hire of labour. Goshen in Lusaka; Green is PP
5. Emily Changwe Father to Boston Makumbi	4a	4a	Rabson upcoming PP. Garden production important.
6. Ruth Mwenge Uncle remains: Boston Makumbi	4a	3b	New cluster based on Uncle. Buys fertilizer and hires p/workers.
7. Eunice Chisenga Where she has gone with her husband 7b: Given Mwenda . 7a: Original land: Liness Bwiinga and Sabina remains 4a.	4a	3b and 4a	Cluster split: Eunice has moved to husband's place, where he is PP, he buys fert. And hires p/workers. At the original village: 7a Mother to Enuice (Liness) remains
11a. Nesta Kunda 11b. Annie Chibuye	4a	4b 4b	Cluster split: Nesta remains with Agnes. Agnes is younger sister (SP) does p/work. FHH cluster. Children send remittances. Mother's house burnt by her brother. Nesta's elder sister Annie has moved out with Nesta's mother to separate village, allocated by chief. No resource sharing between clusters
13. Bess Kalilamoyo	4a	4a	Pharis coming up as PP taking older from aging mother.
12. Charles Kamwengo Ruth Pombolakani	4b	4a	Previous cluster left area and sold the land
14. Adam Chisala	4b	4c	Died leaving widow
16. Felly Mwape Now Mike Ngosa	4b	3b	New PP

Findings: variables affecting impact

- The category of person(s) who had died in the cluster determines resilience of cluster
- Characteristics and stage of life-cycle of the Primary Producer ..
- Length and degree of incapacity during AIDS related illness
- Health status of surviving partner/spouse
- Overall cluster composition (e.g. nos. of female headed households, dependent producers)
- Livelihood and agricultural production opportunities

Findings: Resilience?

- Vulnerability high in Mpongwe but despite social tensions, surprising resilience too
- Land still available for cultivation, access to fertilizer subsidies if have down-payment, to piece work labour and maize marketing opportunities
- Teta protected by more diversified livelihoods, cropping systems & less input intensive farming system
- Potentialities within the matrilineal system have assisted people's adaptation to death and illness
- Inherently adaptable and flexible system
- 2 key aspects: weak marriage bonds and multiple residential options
- Individuals (often men) move around, re-marry, realign, changing shapes of cluster & increasing possibilities for sustainability

Some conclusions and policy recommendations ...

Clusters

- Vulnerability, in terms of gender, age, socio-economic status and agro-ecological location, can only be understood in the context of multiple resource flows and relationships among households
- Programmes working with “the poor” should target resource-poor clusters, rather than poor households
- A broad-based multi-faceted definition of vulnerability is needed, one that is not just AIDS-related, e.g. not all orphans are vulnerable, and not all vulnerable children are orphans
- There is much to be gained by exploring how clusters can be used in research as well as programmatic interventions

Some conclusions and policy recommendations ...

Livelihoods and vulnerability

- Social networks can provide resilience, nevertheless even better-off farmers continue to be gravely affected by the effects of AIDS, livestock disease and changes in the economic and policy environment
- National food security policy has focused on maize intensification, yet crop diversification remains important for household food and nutritional security
- Diversification within and outside agriculture contributes to resilience allowing farming systems to adjust to labour availability

Some conclusions and policy recommendations ...

Health and AIDS

- In contrast to 1993, AIDS is now a known disease, but the link between AIDS and HIV remains misunderstood - people see AIDS but they do not understand how it results from the HIV virus
- Traditional belief systems, e.g. relating to sexual cleansing and witchcraft, are deeply embedded, are affecting health seeking behaviour and outcomes
- Education about HIV/AIDS is using culturally inappropriate communication channels, particularly by failing to differentiate between HIV and AIDS
- Appropriate messages need to be targeted at appropriate people, e.g. older women are channels for transmitting cultural norms about sex and sexuality, they are neglected in prevention programmes
- HIV-protection messages based on the “happy couple” and use of condoms seen only as promoting promiscuity and are not appropriate for the rural cultural context



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Dedicated to the memory of
Simon Kandela Tunkanya