

Post Independence Land Reform In Zimbabwe

CONTROVERSIES AND IMPACT ON THE ECONOMY

Medicine Masiwa

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POST-INDEPENDENCE LAND REFORM IN ZIMBABWE:

Controversies and Impact on the Economy

Edited by

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Chapter Nine

Land Reform and the Challenge of HIV/AIDS in Zimbabwe

Philemon Kwaramba

Introduction

Traditionally health and agriculture have received separate research and policy attention in Zimbabwe. The Medical Research Council of Zimbabwe (MRCZ) and the Agricultural Research Council (ARC), though under the same umbrella organisation-Research Council of Zimbabwe (RCZ), rarely conduct joint research programmes. It is then not surprising that agro-health literature for Zimbabwe is scarce. The advent of HIV/AIDS and the strong link the disease has with agricultural development including land reform calls for a paradigm shift towards joint policy analysis and strategies backed by joint research programmes. In this context, this chapter explores the link between HIV/AIDS (a health issue) and land reform (an agrarian issue).

By its nature, the HIV/AIDS epidemic poses serious threats and challenges to resettlement farming systems under models A1 and A2 in Zimbabwe. Transmission is chiefly heterosexual and the incurable disease kills after a fairly long time. These aspects of the sickness imply that productive members of the household are lost together with their remittances, agricultural knowledge and experience. This life-shortening illness also seriously compromises household long-term agricultural plans and adverse alterations to cropping and livestock-rearing patterns can not be ruled out among affected households. Furthermore, as the infected members succumb to the disease, they gradually get incapacitated thereby seriously compromising labour availability for agriculture. Patient attention and tending needs also rise forcing caregivers to occasionally set-aside agricultural tasks. Financial costs incurred whilst pursuing various healer options as well as meeting funeral needs adversely affect investment in desired new agricultural technology. If both parents are infected, imposed role-play changes often result with elderly and kids taking over fairly complex farming tasks. The success of such forced role take-overs remains uncertain. Various coping strategies exist at both household and community levels and their limitations need analysis for potential and subsequent consideration by policy makers targeting land reform in Zimbabwe.

Condensed land reform development for Zimbabwe are outlined as:

- *1980-1990*: Land redistribution was based on the "willing-buyer-willing seller" concept with substantial donor funding. This covered all feasible enterprises across the agro-ecological zones I to V. The reform process was conducted at a very slow pace and a small number of farm families benefited. The HIV/AIDS challenge was then "unknown" to the majority Zimbabweans and its impact on agriculture, land reform in particular, was hardly noticeable. It then made "sense" not to have a matching HIV/AIDS response programme.
- *1990-2000*: Legislative amendments to speed-up land reform were made by the Zimbabwe Parliament to include compulsory acquisition and matching compensation levels for improvements on the acquired farms. This was due to observed slow pace of the "willing-buyer-willing seller" land reform strategy. There was local and international resistance and most donors pulled out. The 1998 Donor Conference on Land Reform yielded almost nothing tangible. Again a small number of farm-families were resettled under both de-congestion (A1 model) and commercial farmer settlement (A2 model). The HIV/AIDS challenge was now clear to the majority Zimbabweans and its impact on agriculture quite visible. Proposals were made through late 1990 workshops covering HIV/AIDS and agriculture to sharpen coping strategies. It then made sense to have matching HIV/AIDS response programmes for land reform areas. Despite mounting evidence that the HIV/AIDS impact on agriculture was gaining momentum, no explicit response came from the policy makers, MLARR, ZFU and ICFU included.
- *Year 2000 and beyond*: The Fast Track Resettlement Programme was instituted in response to resistance by established farmers enabled by further legislative amendments to contain new settler eviction and shortening of notice period for the previous farmer. The government vigorously pursued both "A1" and "A2" schemes. This involved a bigger number of farm-families. There was much less donor involvement and an input supply revolving programme was mooted. The HIV/AIDS impact is now quite severe. Still there is no explicit programme to address HIV/AIDS challenges among resettled farmers under both models which is quite worrisome.

In all the three major land reform development stages, there was no corresponding HIV/AIDS management plan developed to mitigate the socio-economic impact among the newly located farm-families. This certainly could be disastrous.

The 1997 study conducted by the Zimbabwe Farmers Union (ZFU) through funding from a German NGO Friedrich Ebert Stiftung (FES) noted the following among communal agricultural production systems:

- ZFU, main farmer representative organisation, rarely put HIV/AIDS on its agenda.
- The worst affected crops were: maize (staple food crop); cotton and sunflowers
- The impact was more severe on marketed output than crop area and harvested quantities
- Crops that were reportedly no longer grown by most affected households were given as: cotton; soybean and sunflower all quite labour-demanding.

- Livestock no longer reared were given by the majority affected households as: goats; cattle and pigs all demanding labour. Inputs could be beyond reach for many.
- The sale of agricultural produce was the dominant coping strategy among the majority affected households.

Despite these danger-warning signals almost 5 years ago, no serious steps have been taken in communal farming areas including resettlement areas. If ZFU had mounted responsive programmes, lessons and experience would have benefited the new farming systems under models A1 and A2.

The Incidence of HIV/AIDS

According to statistics obtained from the UNAIDS, NAC and NACP, Sub-Saharan Africa people living with HIV/AIDS numbered 28.1 million in the year 2000 and were projected to rise to 40 million in the year 2001. Newly infected persons estimates were set at 3.4 million for 2000 and 5 million for 2001 whilst deaths due to HIV/AIDS were projected to 2.3 million (2000) and 3 million (2001).

According to statistics obtained from the NAC, NACP and ZimCDC, Zimbabwean people living with HIV/AIDS numbered 1.8 million in the year 2000 and were projected to rise to 2.1 million in the year 2001. Newly infected persons estimates were set at 1.3 million. Deaths due to HIV/AIDS were projected to 124 000 (2000) and 131 000 (2001).

Furthermore for Zimbabwe, the greatest number of HIV/AIDS cases nation-wide is found in the 20-39 years age group posing threats to labour quantity and quality. The country has two peak-age groups namely the 0-4 years (implying more care time need and time taken away from agriculture) and the 30-39 years age (labour and resource support loss) categories. In the 15 -29 years age category, 5 times more women are infected than men and this seriously compromise access to dominant women labour in agricultural systems including land reform. The lowest number of HIV/AIDS cases is in the 5-14 years age category and this presents a window of opportunity for intervention to mitigate the adverse impact. Land reform areas do not have active and explicit intervention programmes. Responsive institutions are yet to be developed.

Zimbabwean cumulative AIDS cases were estimated at 655 000 for the year 2000 and 977 500 for the year 2001 (NAC; ZimCDC). Orphans were projected at 543 000 in the year 2000, 726 000 in the year 2001 and over 900 000 in the year 2002. Despite these negative trends, multi-sectoral intervention committees remain dormant in Zimbabwe. The HIV/AIDS and agriculture including land reform remain separated. Envisaged long-term negative fertility trends could dent the crucial land reform programme for both models A1 and A2.

Simple Impact Models:

This section gives simplified models which were used in agro-impact capturing for communal agricultural systems under the 1997 ZFU/FES study.

Labour Force Loss (LBF)(%):

$$\text{LBF Loss (\%)} = (\text{LBF}_{\text{bid}} - \text{LBF}_{\text{aid}}) / \text{LBF}_{\text{bid}} \times 100\%$$

Where:

LBF_{bid} = Labour force before HIV/AIDS illness and death

LBF_{aid} = Labour force after HIV/AIDS illness and death

% = decline expressed as a percentage

Assumptions made:

- Health personnel can easily identify AIDS-case households.
- Analysts can easily identify productive labour under land reform programmes
- Respondents can fairly recall labour changes due to HIV/AIDS.
- LBF_{bid} greater than LBF_{aid}
- LBF_{bid} and LBF_{aid} are all greater than zero

Results are given under table 2

Average livestock population (LP) decline per household:

$$\text{LP decline (\%)} = (\text{LP}_{\text{bid}} - \text{LP}_{\text{aid}}) / \text{LP}_{\text{bid}} \times 100\%$$

Where:

LP_{bid} = Livestock population before HIV/AIDS illness and death

LP_{aid} = Livestock population after HIV/AIDS illness and death

% = decline expressed as a percentage

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes in livestock population
- LP_{bid} greater than LP_{aid}
- LP_{bid} ; LP_{aid} are all greater than zero.
- Assumed a normal season with regards to rainfall patterns

Results are given under table 3.

Average land area (LA) decline per household:

$$\text{LA decline (\%)} = (\text{LA}_{\text{bid}} - \text{LA}_{\text{aid}}) / \text{LA}_{\text{bid}} \times 100\%$$

Where:

LA_{bid} = Land area before HIV/AIDS illness and death

LA_{aid} = Land area after HIV/AIDS illness and death

% = decline expressed as a percentage

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes in crop area
- LA_{bid} greater than LA_{aid}
- LA_{bid} ; LA_{aid} are all greater than zero.

- Assumed a normal season with regards to rainfall patterns

Results are given under table 3.

Average yield decline (Y) decline per household:

$$Y \text{ decline (\%)} = (Y_{bid} - Y_{aid}) / Y_{bid} \times 100\%$$

Where:

Y_{bid} = Yield before HIV/AIDS illness and death

Y_{aid} = Yield after HIV/AIDS illness and death

% = decline expressed as a percentage

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes yields
- Y_{bid} greater than Y_{aid}
- Y_{bid} ; Y_{aid} are all greater than zero.
- Assumed a normal season with regards to rainfall patterns

Results are given under table 3.

Average marketed output decline (MKtY) decline per household:

$$MKtY \text{ decline (\%)} = (MKtY_{bid} - MKtY_{aid}) / MKtY_{bid} \times 100\% ..$$

Where:

$MKtY_{bid}$ = Marketed output before HIV/AIDS illness and death

$MKtY_{aid}$ = Marketed output after HIV/AIDS illness and death

% = decline expressed as a percentage

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes marketed output
- $MKtY_{bid}$ greater than $MKtY_{aid}$
- $MKtY_{bid}$; $MKtY_{aid}$ are all greater than zero.
- Assumed a normal season with regards to rainfall patterns

Results are given under table 3.

Additional investment (Alnv) in Z\$ per household:

$$Alnv \text{ (Z\$)} = \text{Sum} (Inv_{HAi} - Inv_{nHAj}); i, j = 1 .. k$$

Where:

Inv_{HAi} = Investment made by HIV/AIDS infected members before illness/death

Inv_{nHAj} = Investment made by none-HIV/AIDS infected members before illness / death.

i, j = agricultural investment items purchased per category

k = number of items purchased per member

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes in purchased assets and their values
- Respondents free to verify facts through records or consulting other members of the household.
- Inv_{HAI} greater than Inv_{nHAj}
- Inv_{HAI} ; Inv_{nHAj} are all greater than zero.
- Assumed a normal season with regards to rainfall patterns
- More generic assumptions made are given under Annex 4.

Results are given under table 6.

Additional off-farm remittances (OFR) in Z\$ per household:

Additional OFR (Z\$) = Sum ($OFR_{HAI} - OFR_{nHAj}$); $i, j = 1 \dots k$

Where:

OFR_{HAI} = Off-remittances made by HIV/AIDS infected members before illness and/or death

OFR_{nHAj} = Off-farm remittances made by none-HIV/AIDS infected members before illness and/or death.

i, j = reflects sources of off-farm income by category

k = number of sources per member

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate changes in remittance values.
- Respondents free to verify facts through records or consulting other members of the household.
- OFR_{HAI} greater than OFR_{nHAj}
- OFR_{HAI} ; OFR_{nHAj} are all greater than zero.
- Assumed a normal season with regards to rainfall patterns

Results are given under table 6.

Economic Costs of Illness (Summation Model):

Let:

F_c = total financial costs of health care for the period before death (Z\$)

F_d = financial costs of drugs, herbs etc (Z\$)

F_f = financial costs related to fees (consultations, hospitalisation etc) Z\$

F_u = financial costs related to funeral expenses (Z\$)

F_t = financial costs of travelling (Z\$)

F_s = financial costs of subsistence (Z\$)

F_o = other financial costs

$F_c = \text{Sum} (F_d + F_f + F_u + F_t + F_s + F_o)$

Let:

T_m = total time costs (inclusive of burial) Z\$

T_s = time costs of the sick person/days of foregone production

T_c = time costs of care-givers/days of foregone production

T_f = funeral time (duration at homestead of deceased, for all remaining members of that household)

w = daily wage rate

n = number of illness episodes

a = age coefficient (1.0 for 15 years +; 0.5 for 5-14 years and 0 for over 75 years and under 5 years of age.

s = related to the sick individual(s)

c = related to the care givers.

$$T_m = \text{Sum } (T_s * a * w + T_c * a * w + T_f * a * w)$$

Let:

F_u = funeral costs upon death (Z\$)

C_d = contributions from relatives, neighbours, well-wishers etc

D_h = demands honoured upon death (in-laws; debts etc)

T_r = transport costs ferrying the body

F_d = food expenses including value of stock slaughtered

G_b = grave building expenses

O_{th} = others expenses

$$F_u = \text{Sum } (C_d + D_h + T_r + F_d + G_b + O_{th})$$

Economic costs of Illness (E):

$$E = \text{Sum } (F_c + T_m + F_u)$$

The summation model was extracted from Kwaramba PK (1997).

Assumptions made:

- HIV/AIDS-case households can be easily identified after consulting local health personnel
- Respondents recall fairly accurate absenteeism time, time spent on care-giving, number of care-givers and costs incurred up to death as well as funeral expenses.
- Respondents free to verify facts through records or consulting other members of the household.
- All parameters making up F_c , F_u , T_m and E greater than zero.
- Assumed a normal season with regards to rainfall patterns

Results are given under table 6.

Institutional model for HIV/AIDS mitigation among land reform localities:

The ideal model will have the following elements:

- Structure/Institutions involved or to be created

- Resources available or to be mobilised
- Activities and assumptions
- Outputs
- Policy and Legal Support Systems
- Performance Monitoring & Evaluation Systems

Assumptions made:

- MLARR and MoH&CW reach a common understanding of the HIV/AIDS impact on agriculture among resettled farmers.
- MLARR and MoH&CW agree on effective mitigating approaches
- MLARR and MoH&CW agree on joint projects and programmes
- MLARR and MoH&CW agree on activities
- MLARR and MoH&CW agree on resource requirements and combine efforts in mobilisation
- MLARR and MoH&CW agree on joint or complimentary project outputs among resettled farmers
- MLARR and MoH&CW agree on complimentary policy and legal support systems
- MLARR and MoH&CW agree on effective monitoring and evaluation systems
- MLARR and MoH&CW will adopt the model as is or with minor modifications

An institutional model developed by the author based on this framework and using related parameters is given under table 12.

HIV/AIDS Impact on Agriculture:

Table1: HIV/AIDS Impact on agriculture and implications:

Possible Impact	Implications
Decrease in agricultural labour force	<ul style="list-style-type: none"> • Decrease in area cultivated; covered at weeding, pruning; mulching stages resulting in yield declines • Increase in fallow land returning to bush • Shift towards less labour-intensive crops & animal production systems • Decrease in women's productive activities due to their role as care-providers • Missed planting seasons • Delayed harvests common & related losses increase • Hiring-in and -out labour tendencies common
Chronic illness/Death of household member	<ul style="list-style-type: none"> • Health-care expenditure increases • Funeral costs at a time financial resources are depleted
Increase in number of orphaned children	<ul style="list-style-type: none"> • Child-headed households resulting in reduced school attendance or withdrawal from the same
Acute Decline in Household Income	<ul style="list-style-type: none"> • Sale of land • Decrease in farm income sources & % of farm output marketed • Liquidation of savings; slaughtering of livestock to

	<ul style="list-style-type: none"> provide income for health care and funerals • Decrease in women's contribution to household income • Decline in purchased items including food • Increased need for cash income sometimes resulting in sex work
Decrease in credit availability and use	<ul style="list-style-type: none"> • Increase in interest rates as shortages bite the money market • More frequent loan defaults
Decrease in aggregate community income and assets	<ul style="list-style-type: none"> • Reduction in investment • Increase in community expenditure for formal and informal health care
Loss of agricultural knowledge, practices and skills and their transmission from generation to the next	<ul style="list-style-type: none"> • Decrease in the availability of skilled labour and essential agricultural knowledge for orphan-headed households • Loss of gender-specific agricultural knowledge
Decrease in access to natural resource, especially land	<ul style="list-style-type: none"> • Depletion of resources near homesteads (water, forests) • Decrease in biodiversity and the pool of genetic resources
Exacerbation of gender-based differences in access to resources	<ul style="list-style-type: none"> • Increase in gender inequality, resulting in a decrease in access to land, credit & knowledge, for women in general but particularly for widows
Change in social resources	<ul style="list-style-type: none"> • Less time available to participate in community-based organisations, associations and other support networks
Increase in social exclusion	<ul style="list-style-type: none"> • Increased stigma associated with HIV, thus increasing the difficulty of maintaining social and kin groups
Decrease in tangible household assets	<ul style="list-style-type: none"> • Poor household maintenance • Increase in sale of household goods, equipment and tools
Degradation of public services	<ul style="list-style-type: none"> • Reduction in the quality and quantity of public service provision • Less maintenance of communal irrigation systems, terraces and roads

Source: FAO Bulletin on HIV/AIDS and Food Security (2002).

Table 1 gives an indication of the possible impact of HIV/AIDS on agriculture. This could happen to various enterprises pursued by resettled farmers under both A1 and A2 land reform models in Zimbabwe. The extent of impact could also vary by NR and effectiveness of coping strategies in place.

Loss of agriculture labour in Africa:

According to table 2, Zimbabwe ranks joint second in projected labour loss among the selected nine African countries. This undesirable position has to be acknowledged by policy makers so that effective strategies are developed and

implemented for the new farmers under the new environments created through land reform.

Table 2: Projected Loss in Agriculture Labour force through AIDS (1985-2020)

Country	Labour Force Loss
Namibia	-26%
Botswana	-23%
Zimbabwe	-23%
Mozambique	-20%
South Africa	-20%
Kenya	-17%
Malawi	-14%
Uganda	-14%
Tanzania	-13%

Source: FAO Bulletin on HIV/AIDS and Food Security (2002)

As earlier noted, this projected loss in labour force for the agricultural sector, land reform areas included, has adverse implications on aspects such as:

- Land area and subsequently farm size utilisation
- Completion of key tasks at ideal stages of crop growth and livestock development in a manner that does not compromise agricultural productivity
- Income earning levels
- Poverty containment
- Standards of living optimised.

The absence of HIV/AIDS sound mitigating programmes among resettled farmers imply that that projected losses in labour force under table 2 may become reality. The proponents of the agrarian reform risk derogatory remarks if they do not address the HIV/AIDS impact effectively and model A2 farmers risk entering subsistence farming on the commercial farms.

Empirical evidence from Zimbabwe:

The empirical evidence of the socio-economic impact of HIV/AIDS on communal agriculture in Zimbabwe was generated through a 544-househol survey funded by FES for ZFU in 1997. The data was collected through questionnaires administered in two provinces namely Mashonaland West and Manicaland. It covered 4 districts, two from each province, Chegutu Rural and Hurungwe (Mashonaland West) and Makoni and Nyanga (Manicaland). Selected impact findings are covered under this sub-section:

Area; Harvest Declines:

Table 3 results show that the biggest percentage decline was registered on marketed maize followed by harvest tonnage. These have serious implications on food security, household income and raw material availability to feed into the agro-industry of Zimbabwe.

Table 3: Enterprise Declines Due to HIV/AIDS in Communal Areas:

Parameter	1997 down to	2002¹⁰⁰ Estimates
Maize; Cotton Area	34%	44%
Maize; Cotton Harvest Tonnage	54%	64%
Cattle; Goats Population	35%	45%
Marketed Maize Tonnage	61%	71%
Marketed Cotton Tonnage	47%	57%
Marketed Groundnuts Tonnage	37%	47%
Marketed Vegetables	49%	59%

Source: Kwaramba P K (1998); Author Projections Based Key Informant views

Year 2002 conservative projections with regards to decline by parameter are also given under the same table 3. These declines give indications on what is likely to happen if the land reform programmes do not take HIV/AIDS impact seriously. Survey indications on possible explanatory variable point towards:

- Labour shortages at critical operational stages
- Input shortages (seed; fertiliser; agro-chemicals)
- Decline in manure quantities for application as fertilisers (fewer livestock kept per household).
- Draft power animals sold for cash to meet AIDS patients' needs

It should also be observed that, in both cases, land area percentage declines were lower than harvested quantity percentage declines. This could indicate that remaining household members cope initially at planting but then succumb as workload increases on respective farms. The same can not be ruled out under land reform areas. Marketed quantities registered largest percentage declines and as earlier noted this has adverse implications on long-term agro-industrial development as raw material supply bottlenecks might emerge. Supply bottlenecks also contribute towards increased food inflation emanating from the current shortages.

Declines in land area utilisation ranging from 34 to 44% translate into 2.72 to 3.52 million hectares considering the target 8 million hectares set by GoZ (table 7). Assuming maize yield averaging 4 tonnes/hectare, this translates into 10.9 to 14.1 million tonnes of the commodity. Losses of such magnitude can not be tolerated in an agrarian economy like Zimbabwe.

The Zimbabwe land reform programme needs strategic plans to address impending HIV/AIDS-induced enterprise declines. A serious re-think is needed at policy level so that resources are mobilised in time. The land reform areas appear more vulnerable because of shaky structures and the absence of mitigating institutions. The impact could be more severe than table 3 contents and this "invites" blame and shame from opponents of land reform exercise and they will use HIV/AIDS as the scapegoat.

¹⁰⁰ Key informants (annex 1) estimated the worsening of the situation to between 10 and 20% for each impact parameter. This paper uses 10% to project current impact trend assuming a normal rain season.

Impact on resettlement versus communal irrigation systems:

The FES/ZFU study also had an element of comparing impacts between dry-land resettlement and communal irrigation systems. Table 4 summarises the comparative results.

Table 4: Resettlement & Communal Irrigation Systems

	Resettlement	Communal Irrigation
Variable	% Decline	% Decline
Maize Area	28%	30%
Maize Harvest	39%	61%
Cotton Area	-	63%
Cotton Harvest	-	83%
Sunflower Area	21%	-
Sunflower Harvest	24%	-
Vegetable Garden Area	*	57%
Vegetable Garden Harvest	6%	63%
Groundnuts Area	*	-
Groundnuts Harvest	73%	-

Key: * - an increase was recorded - not known

Source: FES/ZFU Data Extracts (1997)

The HIV/AIDS impact was more severe under communal irrigation schemes than dry-land resettlement areas. Possible explanations centred on the fact that communal irrigation systems practise intensive farming with 2-3 crops per year. Hence severe percentage declines could have emanated from:

- Relatively higher labour needs
- Relatively higher fertiliser and seed use tendencies.
- More relative application of agro-chemicals to manage challenges that follow intensive farming
- Criticality of experience and knowledge in managing 2-3 crops per season including irrigation scheduling and negotiation for water access at ideal stages.
- Financial muscle to fund input procurement weakened

The Zimbabwe land reform programme has irrigation elements and these percentage declines give danger warning signals to farm households that find themselves affected by HIV/AIDS. Percentage declines could be of the same magnitude if not worse and we might have disaster in the making if there are effective response programmes.

Differential impact across Natural Regions:

As shown by table 5, average land area declines were almost similar as given: NR2 - 29%; NR3 - 26% and NR4 - 27%. Still on the same table, average harvest quantity declines were as follows: NR2 - 59%; NR3 - 44% and NR4 - 66%. The overall declines ranked (smallest to highest): 1 NR3; 2 NR2 and 3 NR4. Generally the impact tends to be more severe as we move down NR2 to NR4.

Table 5: Declines by NR

Variable	NR 2	NR 3	NR 4
Maize Area	26%	29%	31%
Maize Harvest	49%	51%	61%
Cotton Area	28%	29%	*
Cotton Harvest	63%	48%	72%
Groundnuts Area	32%	20%	22%
Groundnuts Harvest	66%	32%	64%

Source: FES/ZFU Data Extracts (1997)

Farm sizes under the Zimbabwe land reform programme depend on NRs. Mitigating strategies and planning systems have to note this trend if they are to be effective. These findings also call for the strengthening of coping strategies in marginal rainfall areas.

Indications of performance and investment:

Annexes 1 and 2 give yield performance by per crop whilst annexes 3 and 4 give an indication of investment in agriculture using communal irrigation schemes and small scale commercial farming areas as proxies of performance when the HIV/AIDS impact is less severe. If there are no effective coping mechanisms these fairly impressive results will disappear due to HIV/AIDS constraints earlier highlighted. Part of the investment may benefit the A2 farmers or may be hired by nearby A1 farmers. Maintenance also programmes tend to be adversely affected by the HIV/AIDS pandemic. Some of the assets may be sold under desperate conditions, to meet costs associated with the HIV/AIDS epidemic. Land reform agriculture will also be victimised indirectly.

Captured Economic Impact:

The economic impact was captured through tracing the HIV/AIDS impact on parameters such as investment in agriculture, additional time costs, additional overall costs and loss of off-farm remittances to agriculture. FES/ZFU empirical results for 1997 and 2002 value projections are given under table 6.

Table 6: Additional Costs (HIV/AIDS effect) Projections: Communal Areas

Differential Parameter	1997 ¹⁰¹ Empirical Per Household	2002 Per Household Projected ¹⁰²	2002 Per Household Projected ¹⁰³	2002 Per Household Projected ¹⁰⁴
Investment in Agric	Z\$1 546.00	Z\$4 724.00	Z\$25 767.00	Z\$51 534.00
Additional Cost	Z\$1 241.00	Z\$3 792.00	Z\$20 683.00	Z\$41 346.00
Additional Time Cost	Z\$727.00	Z\$2 299.00	Z\$12 117.00	Z\$24 233.00
Loss of off-farm remittance to Agric: one death	Z\$3 100.00	Z\$9 472.00	Z\$51 667.00	Z\$103 334.00
Loss of off-farm remittance to Agric: two deaths	Z\$4 705	Z\$14 376.00	Z\$78 417.00	Z\$156 834.00

Source: Kwaramba P K (1998): Author Projections based on US\$: Z\$ Exchange Trends (1997 to 2002).

It should be noted that financial values given under table 6 are the difference between AIDS-case and non-AIDS case per household¹⁰⁵. Projections to 2002 were based on US\$:Z\$ exchange rate developments, although conducting the same study now would be more ideal.

2002 additional costs based on 131 000 AIDS deaths were projected to Z\$5.4 billion/year of which Z\$3.2 billion/year representing 59% of all costs were attributable to time costs. Additional value of investment into agriculture based on the same projection formula came to Z\$6.8 billion/year. Using the same formula additional loss of off-farm remittances was projected to Z\$13.6 billion/year. Combined projected loss to agriculture aggregates to Z\$25.8 billion/year at estimated 2002 economic performance level.

This represents 3% of GDP whose estimated value amounts to Z\$926.2 billion (Barclays Bank Economic Bulletin December 2001). The projected loss also represents 6% of national aggregate expenditure for the year 2002 and 10% of national revenue estimates for the same year. The same projected loss due to HIV/AIDS represents 156% of the year 2002 entire budgetary allocation for the Ministry of Lands, Agriculture and Rural Resettlement. The same parameter is more than 4 times funds set aside for the entire land reform programme whose estimates for the year 2002 amount to Z\$6 billion. The same loss can fund irrigation investment covering 172 000 hectares at Z\$150 000 per hectare.

It is quite possible that the net losses through HIV/AIDS could be greater than gains from the entire land reform programme. This is expected in year one but should change for better in year 2 onwards. If policy makers are not careful, the net losses

¹⁰¹ US\$1: Z\$18.00

¹⁰² Officially US\$1: Z\$56.925

¹⁰³ Goods Rate: US\$1: Z\$300.00

¹⁰⁴ Parallel Market Rate: US\$1: 600

¹⁰⁵ Refer to the FES/ZFU (1997) Report for more details.

may be prolonged by the adverse HIV/AIDS impact. This will signify declines of Zimbabwe agriculture and loss in ranking among major food producers in Africa.

Assuming 400 000 farming households enter the Zimbabwe land reform programme, table 6 projections coupled with 51% HIV/AIDS incidence rate (Kwaramba, 1997), costs and loss projections can be made specifically for the land redistribution exercise (table 7). 51% works out to 204 000 farming households.

Table 7: Additional cost projections for the Land Reform Programme

Parameter	2002 Projection per Household	Aggregate Value for the Land Reform Programme
Investment in Agriculture	Z\$51 534.00	Z\$10.5 billion
Additional Costs of Care	Z\$41 346.00	Z\$8.4 billion ¹⁰⁶
Sub-total	-	Z\$18.9 billion
Loss of remittances: one death/household ¹⁰⁷	Z\$103 334.00	Z\$17.5 billion
Loss of remittances: two or more deaths/household ¹⁰⁸	Z\$156 834.00	Z\$5.4 billion
Sub-total	-	Z\$22.9 billion
Grand Total	-	Z\$41.8 billion

Source: Author's Projections based on 400 000 farm-families under land reform and table 6 data.

The potential HIV/AIDS-induced losses to land reform agriculture represents 4.5% of GDP whose earlier estimated value amounts to Z\$926.2 billion (Barclays Bank Economic Bulletin December 2001). The same parameter is almost 7 times funds set aside for the entire land reform programme whose estimates for the year 2002 amount to Z\$6 billion. The same loss can fund irrigation investment covering almost 280 000 hectares at Z\$150 000 per hectare.

The projected Z\$41.8 billion threat to land reform agriculture due to HIV/AIDS is barely minimal. Time costs will be much higher as the population per household will be higher than communal area set-ups and the expertise involved has much higher daily labour rates. Furthermore land reform assets will be of much higher value than in communal areas studied by ZFU under FES sponsorship in 1997. We are also talking about investments over millions of Z\$ per household and loan which are in the same ranges. Effective mitigating strategies are needed as a matter of urgency if meaningful gains are to be reaped from the land redistribution exercise.

It has been earlier noted that communal agriculture is exposed to the tune of Z\$25.8 billion due to HIV/AIDS. The agrarian reform is exposed to the tune of Z\$41.8 billion due to the same pandemic. The combined threat to indigenous agriculture aggregates to Z\$67.6 billion. ZFU and ICFU should take serious steps in addressing the HIV/AIDS challenges to agriculture and save this agrarian economy from HIV/AIDS-induced collapse.

¹⁰⁶ Z\$4.9 billion estimated to be time (opportunity) costs alone.

¹⁰⁷ 83% of households had one AIDS-case/household (projected to 169 320 households)

¹⁰⁸ 17% of households had two or more AIDS-cases/household (projected to 34 680 households)

Possible response:

The FAO HIV/AIDS programme lists eight possible agricultural sector responses to the impact and implications which the author feels do apply to the land reform programme in Zimbabwe as well. These are outlined below:

- *Labour-saving technology*: Remaining household members may resort to low-input agriculture, the use of lighter ploughs and tools by women and elderly kids, minimum tillage, inter-cropping and use of improved varieties that require less labour for weeding.
- *Knowledge preservation & transmission*: This calls for institutions such as extension services and schools to ensure that agricultural skills and knowledge are transmitted across generations.
- *Rural institutions and capacity building*: All rural service providers - for education, health, agricultural extension, credit and finance, women's association, nutrition groups, irrigation committees and terrace maintenance associations - need to be strengthened. These should cooperate with local informal networks that provide most assistance to AIDS-affected households.
- *Gender equality*: Efforts must be made to reduce gender-based differences in access to and control of resources as well as livelihood assets - in particular inequalities in access to land, credit, employment, education and information.
- *Improving nutrition*: Possible strategies would include: nutritional home gardens, use of improved crop management and plant varieties with higher yields, emphasis on staple crops, use of small ruminants for consumption, sale and manure, education and labour exchange programmes.
- *Social and economic safety nets*: Communities have developed a range of strategies to cope with the impacts of HIV/AIDS, most of which are traditionally based and coupled with extended family support. Efforts must be made to strengthen community-based initiatives, especially safety nets that are essential for food security.
- *Monitoring and evaluation*: Response strategies need to be appropriately monitored and evaluated to assist in the design and implementation of more effective programmes to alleviate the impact of HIV/AIDS on rural livelihoods and food security. In addition, participatory monitoring systems should be developed so that the people themselves can measure progress.
- *Mainstreaming HIV/AIDS*: The experience of all partners, from all sectors, in addressing the HIV/AIDS epidemic must be built upon in order to develop an effective agricultural strategy. Advocacy is necessary to increase political commitment and influence national policies.

These responses can go a long way in mitigating the HIV/AIDS impact among resettled farmers. However their success depends on supportive policies, strategies and implementing institutions. Currently these elements are missing under the Zimbabwe land reform programme. Land area declines in utilisation, uncompleted field tasks and reverting to subsistence agriculture are distinct possibilities. This will be shameful to a government that has invested so much to ensure equitable resource distribution. Food security also suffers. Labour capacity and quality deteriorates as extension staff and farm workers succumb to the disease leaving the tasks to children/orphans. The burden of caring for sick would also be borne by resettled farmers as urban-based sick spent last days at the farms. The sale of

productive assets to care for sick diverting funds away from development under A1 and A2 models could be common.

Zimbabwe Land Reform Vulnerability to HIV/AIDS:

Various Ministry of Lands, Agriculture and Rural Resettlement (MLARR) consultations indicated that close to 400 000 farm-families have been resettled between 1980 and 2002 under the willing-buyer-willing-seller scenario; compulsory acquisition and the fast-track land reform programme. Both resultant models A1 (whose main thrust is de-congestion) and A2 (whose main thrust centres around black economic empowerment through indigenisation of commercial farming) are vulnerable to the HIV/AIDS pandemic. Traditionally policy discussions were biased towards inputs (crop packs; extension support) and output markets whilst the HIV/AIDS impact has been consistently ignored.

Kwaramba P K (1997) observed that communities implicitly noted two vulnerability parameters for affected households:

- Demographic: sexually active remaining household members; very young; very old
- Socio-economic: those with weak asset bases; the isolated; suspected of bringing misfortunes to neighbours; indebted households; those whose parents had no savings; those with "new" decision-makers who are crooks; whose terminal benefits/policy yields were abused by relatives.

These also apply to Zimbabwe's land reform programme as well as mitigating policies and responsive projects should take them into account.

Under the fast-track land reform programme 2000-2001, the MLARR received model A2 applications numbering 100 351¹⁰⁹ and successful candidates numbered 54 592. The remaining 45 759 were referred to the A1 model. In essence over 100 000 farmers were injected into the Zimbabwe agrarian system. They will join either the Indigenous Commercial Farmers Union (ICFU) or the Zimbabwe Farmers Union (ZFU) or both or even create a new farmers union. The sad story is that all have a weak agenda on their tables. They do not take the impending adverse impact of HIV/AIDS seriously. Following stiff resistance in various forms, enabling pieces of legislative instruments as well as amendments covering acquisition, protection from eviction for new farmers and shortening of notice period have seen the Parliament of Zimbabwe working over night on a couple of occasions. Land surveyors' physical verification and valuation criteria as well as resource mobilisation for compensation have also moved fast. Limits on farm sizes (table 10.9) have been gazetted and land taxation is looming. However the HIV/AIDS subject does not feature anywhere among the key policies and strategies. It should be noted that this disease might critically detract farming programmes, their performance and policy thrusts. Poor performance imply less output and less raw material feeding into the agro-industry and consequently less income to farm-families. The land tax revenue might not be that much and re-investment constraints limit agricultural growth. When agro-industries receive less local raw material and resort to importation, economic competitiveness is seriously compromised.

¹⁰⁹ More applications still being considered

The dominant farmer age category was estimated to be the 25 years to 59 years. Among the successful land reform applicants are professionals: engineers; bankers; financial analysts; agriculturalists; planners; entrepreneurs; miners; artisans; teachers; doctors among many other professions. All are armed with serious farming zeal and hope for success under either model A1 or A2 as they can secure resources needed for to fund agriculture. Both men and women will enter the new farming systems. With regards to marital status: the married; single; widowed; divorced were equally considered. Relatives and unrelated will have to interact as farm neighbours. The new farmers are supposed to stay at their farms or appoint full-time qualified farm managers most of whom are in the sexually active age group. The HIV/AIDS epidemic will not spare these new farmers. Furthermore the infected will carry the virus into these resettlement areas and spread it more if there are no effective preventive programmes. The visitors into and out also ship the viral infection into areas under discussion. Farm-families with diseased relatives have to carry the burden with them into their farming systems and care-needs will interfere with farming operations.

It is critical to note that 20% of total land and 25% of national farming area (table 8) is under threat if no effective intervention strategies are developed and implemented to curb the HIV/AIDS spread. It should be noted that quite a significant proportion of land is in the hands of diverse farmers of the vulnerable 25-59 years age category. The HIV/AIDS impact is determinant to the agro-success on these farms. Joint agro-health programmes and institutions, which are currently missing, need urgent government attention if land reform is to succeed.

Table 8: Target share for land when land reform "ends":

Category	Size (million Ha)	Proportion (%)
Large Scale Commercial Farms	6.0	15
Small Scale Commercial Farms	1.7	4
Communal Farming Area	16.4	41
Resettlement (A1;A2)	8.0	20
Parks & Urban Land	6.0	15
State Land	1.5	4
Total	39.6	99

Source: Information & Publicity (GoZ)

Neither key informant consultation nor available literature pointed towards prior consideration of HIV/AIDS before these ceilings were decided on farm size limit (table 9). The 8 million hectares targeted for the entire land reform programme in Zimbabwe might be put to waste if the HIV/AIDS challenge is not managed effectively. The impact and implications might put the nation to shame as enterprise decline seriously and highly "qualified" farmers perform dismally. Zimbabwe cannot afford to give negative lessons to the international community.

Table 9: Farm size ceilings by GoZ:

Natural Region (NR)	Maximum Size (Ha)
I	250
II (a)	350
II (b)	400
III	500
IV	1500
V	2500
Average	917

Source: Information & Publicity (GoZ)

Empirical evidence derived from studies conducted by ZFU and FES in 1997 revealed devastating effects of HIV/AIDS on small holder agriculture. CFU has evidence of the adverse impact of HIV/AIDS on commercial agriculture despite the presence of mitigating programmes. Setting-up farm sizes might make substantial ecological sense but the answer could be totally different if HIV/AIDS is brought into the equation. The missing matching coping strategies and resources need urgent attention by policy makers.

Limiting farm sizes (table 9) tends to encourage maximum resource utilisation. National output and agricultural productivity also improve per commodity. These limits also mean more farmers across all zonal categories whilst NR I; II; III will have higher number of farmers. HIV/AIDS-induced vulnerability does not disappear. Labour skills and experience among the 20-59 years age category will still be under threat. The relevance of limiting farm sizes might disappear as farmers fail to perform in line with set limits. They might fail to fully utilise the plots, small farms, medium farms and even large ones due to the HIV/AIDS impact.

The National AIDS Council, through National AIDS Trust Fund supported by the legislated 3% AIDS levy, mobilises resources for the HIV/AIDS pandemic management in Zimbabwe. Table 10 highlights key disbursements made by the organisation from January to July 2002.

Table 10: NAC Disbursement of Funds: January-July 2002.

Ministry/Department	Share (million Z\$)	Proportion (%)
MoH&CW	500.0	54
SDF/BEAM Project	100.0	11
AIDS & TB Programme	40.0	5
National Blood Transfusion	19.3	2
National Blood Transfusion Service	19.3	2
Ministry: Education; Sport & Culture	20.0	2
Sub-Total for GoZ	698.6	76
45 District AACs (5 million Z\$ each)	225.0	24
Grand Total	923.6	100

Source: NAC Public Notice (Extracts from Various Press Releases August 2002)

Further analysis of table 10 data shows that the GoZ is the key beneficiary as it gets more than three quarters of the NAC funds. More than 50% goes explicitly to the MoH&CW and more than 63% goes to all health -care management organisations. None went explicitly to the MLARR and none went explicitly to the land reform programme. The agricultural organisations appear contented with the scenario of surrendering the HIV/AIDS challenges to the MoH&CW. This has to change. It is vital to note that, of the Z\$924 million disbursed to various locally-initiated AIDS Action Committees (AACs) from January to July 2002, none went explicitly to agriculture and none explicitly went to the Land Reform programme. The 2% remaining did not go to farming and/or the land reform programme. Accessing part of the 25% disbursed to District AACs will not be easy as agriculture and land reform may be accorded low priority. MLARR and farmers unions must send proposals for NAC consideration covering HIV/AIDS programmes in their respective constituents. Future disbursements should consider agriculture and the land reform areas as well.

Additional vulnerability factors which apply to several aspects of the land reform programme in Zimbabwe include:

- Economic stress may promote development of commercial sex tendencies (A1 and A2 strangers staying together; affairs tend to develop quickly/easily)
- Most have cash and cars
- Gap in preventive programmes targeting A1 and A2 and the void left by CFU programmes on HIV/AIDS
- Effective AIDS management institutions and corresponding projects yet to be developed.
- Polygamous tendencies.

Institutions and Indications of their Effectiveness:

(a) HIV/AIDS Management by Farmers Unions: Are Resettled Farmers Covered (table 11)?

Table 11: Farmers' Unions Role in HIV/AIDS management

Parameter	CFU	ZFU	ICFU	Resettled (A1;A2)	Others ¹¹⁰
HIV/AIDS Projects	Yes	Not quite	Not known	Must be there	None
Activities	<ul style="list-style-type: none"> • Research • Orphanages • Awareness • Prevention • Home-based care 	<ul style="list-style-type: none"> • One impact study • Attends NACP meetings • Assume MoH&CW will do rest 	<ul style="list-style-type: none"> • Assume MoH&CW is responsible • No active projects 	Needs: <ul style="list-style-type: none"> • Impact studies • Mitigatory projects • Prevention • Awareness 	Opinion: MoH&CW; Medical Aid Societies will be responsible

¹¹⁰ Farmers Development Trust (FDT); Agricultural Research & Extension (AREX); Livestock Development Trust (LDT); Agricultural & Rural Development Authority (ARDA); Veterinary Services among others.

	<ul style="list-style-type: none"> Covering Mashonaland Areas: commercial; communal; resettlement areas. 				
Resources	<ul style="list-style-type: none"> Farmers contribute Donors Yet to approach NAC 	<ul style="list-style-type: none"> Donors Yet to approach NAC 	<ul style="list-style-type: none"> Medical aid to cover MoH&C W through its NACP activities 	<ul style="list-style-type: none"> Must approach NAC 	As above
Outlook	<ul style="list-style-type: none"> Not clear; might slow down until land reform is "clear" to them? Donors scaling down 	<ul style="list-style-type: none"> To create structures To prepare proposals for NAC; ZIMRE fund; donors 	<ul style="list-style-type: none"> To table HIV/AIDS on their agenda Needs responsive structures Develop proposals for NAC funding 	<ul style="list-style-type: none"> Needs effective structures To develop proposals for NAC Effective coping strategies needed Likely to be more challenging because of too many unknown variables 	<ul style="list-style-type: none"> Develop interest Mitigatory projects Liaise with NAC

Source: Author's Compilation after Consulting Key Informants

CFU:

The CFU (ZAN AIDS Directory 2001) appears to be the most organised farmers' union tackling HIV/AIDS in Zimbabwean agricultural systems. It started HIV/AIDS projects as far back as 1986 and was reported to have targeted commercial farms,

¹¹¹ Unfamiliar; unrelated neighbours and varying cultures. Unclear structure to address HIV/AIDS problem.

communal areas as well as resettlement farming systems. This union appears to have heard the message early and embarked on HIV/AIDS mitigatory projects earlier than the other unions. It is also affiliated to the Zimbabwe AIDS Network (ZAN) where it gets literature up-dates on demographic trends and sound coping strategies. CFU's main activities include:

- HIV/AIDS and STI Prevention targeting high risk behaviour
- Awareness campaigns among farm workers and communities
- Advocacy for rights, policies and resources
- Counselling the affected and the infected
- Home-based care support
- Self-help projects for remaining household members

The CFU programmes on HIV/AIDS will obviously be affected by the 13 times growth in commercial farmer numbers following A2 model injection of close to 60 000 new farmers. It is not clear whether the CFU's HIV/AIDS Programmes will be extended to the newly established commercial farmers. It is also not clear whether the new commercial farmers under the Zimbabwe's land reform programme will contribute resources as was the case with the previous 4 500 farmers. Chances are quite high that a void will be left as CFU scales down HIV/AIDS operations and will be devastating to the land reform programme. By the time replacement programme needs are considered by the new farmers, the pandemic might have severely dented land reform in Zimbabwe.

ICFU, ZFU:

Both the Indigenous Commercial Farmers Union (ICFU) and the Zimbabwe Farmers Union (ZFU) appear dormant when it comes to HIV/AIDS and agriculture including land reform programme. They appear to have surrendered the challenge to the MoH&CW, insurance companies, medical aid societies and charitable organisations. They seem to have taken the position that abundant labour, as many are unemployed in Zimbabwe, can always fill the gap left by the deceased due to HIV/AIDS.

New Farmers Union for A1 and A2 models (model under table 12):

It is not clear whether beneficiaries of the fast-track land reform programme will join the existing unions (CFU; ICFU; ZFU) or will decide to form a separate union. This issue is affected by the history in resource utilisation by the old institutions. The A1 and A2 farmers may also decide to create own HIV/AIDS response institutions so that they manage their own resources according to priorities they generate internally. What is critical remains effective tackling of HIV/AIDS among the resettlement areas where the impact might be more severe due to the organisational disruptions that follow relocation coupled with the absence of effective mitigatory institutions.

Table 12: Possible Joint HIV/AIDS Mitigation Institutional Set-up

<p>Joint MLARR & MoH&CW institutions:</p> <ul style="list-style-type: none"> • Remove stigma from MLARR & foster collaboration with MoH&CW • Farmers unions; health centres; EHTs; veterinary centres, extension workers to compare notes & share HIV/AIDS impact mitigating ideas • Constituency information centres, input distribution points, clubs, religious associations to share the mitigating ideas when distributing seed and fertilisers. 		
<p>Joint Resource Mobilisation:</p> <ul style="list-style-type: none"> • MoH&CW: WHO: GAP: CDC: USAID: UNAIDS • MLARR: FAO: ISNAR: UNDP: WFP • Both: GoZ Treasury; Banks: NAC; Charity; Medical aid societies; Insurance companies etc 		
<p>Activities in Health: Capacity & Infrastructure Strengthening:</p> <ul style="list-style-type: none"> • Laboratory support • Information system • Monitoring & Evaluation • Training • Others covering surveillance; primary prevention; care & treatment 		
<p>Health/ Surveillance:</p> <ul style="list-style-type: none"> • HIV/STI/TB Surveillance • Behavioural surveys • Programme monitoring 	<p>Health/ Primary Prevention:</p> <ul style="list-style-type: none"> • Voluntary counselling & testing • Preventing mother-to-child transmission • Blood safety • STI Prevention and Care • Youths Intervention • Public-private partnerships • Behavioural change communications • Preventing HIV transmission in drug-using populations 	<p>Health/ Care and Treatment:</p> <ul style="list-style-type: none"> • Prevention and treatment of opportunistic infections • TB prevention and care • Palliative care • Appropriate use of ARVs.
<p>Activities Agriculture: AREX, Farmers Unions</p> <ul style="list-style-type: none"> • HIV/AIDS Impact studies • Mitigating & Coping strategies developed • Feedback from farmers to joint 	<p>AREX, Farmers Unions:</p> <ul style="list-style-type: none"> • Women & orphans capacity building • Extension approach adjusted to cover schools/children • Knowledge & experience transmission adjusted • <i>Zunde</i> strengthened 	<p>AREX, Farmers Unions:</p> <ul style="list-style-type: none"> • Off-farm income invested into agriculture • Avoidance of pensions /savings abuse • Asset sales & abuse discouraged • Asset leases/hire encouraged • Customised medical aid

<ul style="list-style-type: none"> policy makers Community networks' degree of resistance noted & strengthened Mini-dissemination workshops conducted on impact & mitigation 	<ul style="list-style-type: none"> <i>Nhimbe</i> revival Clubs and information centres utilised fully Chiefs & Headmen taking custody of orphans? Land reform orphan care programme strengthened 	<ul style="list-style-type: none"> for land reform farmers & their workers Mitigating exploitations by middle persons Input abuse stopped Extortion checked Ensuring access to credit; right varieties & effective extension support
<p>Joint Monitoring & Evaluations:</p> <ul style="list-style-type: none"> HIV/AIDS trends; effects of preventive projects; institution strengthening progress Success of mitigating projects; projects progressing as planned; land reform targets being met. 		

Source: Adapted from the CDC/Global AIDS Programme (GAP) Public Health Approach; Author's views after consultations.

(b) NGOs:

ZAN's 2001 AIDS Directory lists 95 implementing organisations. 21 funding or facilitating organisations and 5 private organisations actively working on mitigatory programmes in Zimbabwe. These NGOs run combined annual budgets exceeding Z\$959 million and US\$481 000.00 budgets (for 2001). UNAIDS alone has about US\$6 million set aside for the same according to the same directory. It is surprising to note that out of these 121 organisations, only one deals explicitly with HIV/AIDS impact on agriculture. This reflects level of neglect on HIV/AIDS's impact on agriculture including the land reform programmes. Resource utilisation is likely to follow same pattern.

Furthermore, only 12 of the 121 AIDS NGOs had income-generating projects as one of their key activities. These projects include market gardening and poultry business, elements of agriculture which are possible under the land reform programme.

As earlier highlighted resources, which include equipment and training staff, **will be** needed to fund social research: community training & Training of Trainers (TOT); counselling; awareness campaigns; peer education; advocacy; proposal development; information & communication among others. These are still vital to the farming communities but activities should be extended to strengthening of coping strategies (agriculture) as well as funding responses earlier given. Orphan-care farmer support and impact studies on resettlement agriculture are also critical. Few NGOs have these components and Farming Community Trust of Zimbabwe (FCTZ), Red Barna and Save the Children (UK) are just but a few.

The National AIDS Council (NAC) disbursed Z\$924 million to 65 organisations and none targeted AIDS and agriculture or AIDS and land reform. The farmers' unions should be more active and negotiate funding to manage the HIV/AIDS impact on agriculture and prevent disasters among resettlement farmers.

(c) Medical institutions and affiliates:

The MoH&CW, through the NACP, has been co-ordinating HIV/AIDS in Zimbabwe including farming areas. NACP has multi-sectoral committees whose membership transmits vital information either way. NACP dissemination of information on HIV/AIDS dangers and prevention does not by-pass land reform areas. Every clinic¹¹² has campaign posters against HIV/AIDS and radio as well as television advertisements serve the same purpose without discriminating resettlement areas of Zimbabwe.

However the link between MoH&CW and MLARR in tackling the HIV/AIDS impact on agriculture is very weak. It is even weaker under the land reform areas because facilities such as clinics, schools and roads still need further development. Order is yet to prevail under land reform locations but the HIV/AIDS impact will not wait.

The Medical Research Council of Zimbabwe (MRCZ), Agricultural Research Council (ARC) as well as university faculties of medicine and agriculture should conduct research on the HIV/AIDS effect on agriculture under the new land reform areas so that effective joint policies can be generated to prevent the programme from collapsing. The National AIDS Council, medical aid societies, insurance companies and keen international organisations should assist with resources for this exercise. The study will also explore ways in which chiefs/headmen; traditional medical practitioners and church organisations can contribute towards strengthening HIV/AIDS coping strategies among resettled farmers.

The possibility of accessing more resources for implementing resultant projects from farmer levies; international community; private sector; National Social Security Authority (NSSA); interested foundations; charitable organisations (Rotary Club; Lotto) deserves further analysis. Thorough policy analysis to ensure sustainable HIV/AIDS mitigating programmes among the land reform areas is quite important.

(d) Private Sector Efforts:

Explicit private sector efforts in channelling resources to contain the impact of HIV/AIDS on agriculture and land reform in particular have been minimal. Agro-industrial companies' efforts have been restricted to their premises. Resource channelling to halt resultant declines in agricultural fields and in land reform locations has been limited. There are more than 10 commercial banks, more than 5 merchant banks, more than 5 finance houses, more than 3 parastatals and more than 5 agricultural co-operatives which can allocate a portion of their resources to fund HIV/AIDS mitigating programmes in Zimbabwe. None had an explicit budget line item to fund the management of HIV/AIDS among farmers and for the land reform programme.

The agro-industrial response was observed through David Whitehead and Astra Holdings (AIDS Directory 2001). Their chief focus, restricted to own industrial premises, centred on awareness; peer education and prevention through visits by health personnel. They have nothing to do with land reform areas, it appears.

¹¹² Mostly new and may not be fully functional; may be far apart.

(e) Input Supply Schemes:

The country's crop pack programme whose emphasis centres on supplying fertiliser and seed to needy farmers including those newly resettled deserves special assessment taking into account the impact of HIV/AIDS. HIV/AIDS related costs may force farmers to sell the inputs for urgent treatment of the sick. Labour declines may lead to under-utilisation of these resources.

Effective mitigating programmes become critical and should cover the distributing institutions as well as the recipient farming community covered under the Zimbabwe land reform programme. Facilitating institutions include the Grain Marketing Board (GMB); AgriBank's Agricultural Development Assistance Fund (ADAF); Cottco; Livestock Development Trust (LDT); Farmers Development Trust (FDT); Agricultural and Rural Development Authority (ARDA) and ARES.

Policies guarding against abuse should be developed and supported by legislative instruments as well as safety nets for those unfortunate farmers who may experience tremendous financial pressure due to HIV/AIDS.

(f) Farm workers:

The official GoZ position is that farm workers will not be victims of the land reform programme. New owners will employ them or they will be allocated their own pieces of land under model A1 or A2.

The Farming Community Trust of Zimbabwe (FCTZ)'s 2002 report gives an account of near-destitution among properties served with Section 8 notices to vacate premises within 90 days. Their income expectations were reduced as they feared retrenchments, poor packages or less negotiable employment contracts. This scenario of HIV/AIDS amidst looming poverty and destitution might fuel the pandemic's impact. Commercial sex tendencies may rise further spreading the deadly HIV virus. FCTZ (2002) report also covered possible coping strategies. 53% pointed towards piece jobs, 4% pointed towards gold panning and fishing whilst 33% said there is nothing they could do. Whilst it is disturbing that 90% had no interest in either A1 or A2, it becomes critical to educate the farm workers and empower them to be their own masters. They also need to note the dangers of HIV/AIDS when they re-locate to their plots under the current land reform programme.

Best Practices & Gaps:

Many developmental issues nowadays are analysed in the context of "best practices" and "gaps" so that appropriate remedial actions become apparent to policy makers. Best practices are promoted whilst gaps are corrected or dropped completely. Campaigns against gaps are also common.

Best Practices:

- Strong HIV/AIDS management systems: VCT; MTCTP; STI treatment; Opportunistic infections treatment; ARV therapy; HBC; Hospices; preventive & awareness campaigns
- GoZ declared HIV/AIDS a national disaster to facilitate effective resource mobilisation for containing the pandemic.
- The NAC Trust was created for resource custody

- NAC policy on giving priority to proposals from grass roots through DAACs appears noble.
- NAC half-yearly publication of beneficiaries of disbursements raises awareness country-wide.
- MoH&CW constant reminder about the dangers of HIV/AIDS; statistical up-dates and forecasts.
- ZAN's national HIV/AIDS directory of NGOs which gives activities, budgets and locations so that duplications are avoided.
- MoH&CW success in accessing resources through the Global Fund for HIV/AIDS, TB and Malaria.
- HIV/AIDS resources abundant country-wide: videos; pamphlets; manuals and posters
- Collective efforts across society to address HIV/AIDS challenges
- HIV/AIDS impact studies and dissemination of findings
- HIV/AIDS programme activities accorded priority in foreign currency allocation
- International NGOs bringing foreign currency to Zimbabwe.
- Efforts by NACP to create multi-sectoral committees on HIV/AIDS

Gaps in Agriculture and Land Reform:

- HIV/AIDS stigma still high in agriculture and presumably among resettled farmers
- Recommendations through dissemination workshops not transformed into effective mitigating projects by players in the agricultural sector (except CFU), no difference under land reform programme.
- Low profile to zero HIV/AIDS projects and activities under ZFU; ICFU
- No HIV/AIDS impact mitigatory plans for A1; A2 models; No matching institutions.
- MLARR "delegates" MoH&CW to address AIDS issues
- No explicit budgets under MLARR for HIV/AIDS; priority given to the problem also low
- No extension worker HIV/AIDS control programmes
- AIDS NGOs have no explicit budgets for agriculture; none explicit budgets for land reform areas
- Looking at NAC disbursements, none explicit to agriculture; none explicit to land reform areas.
- 12 out of 121 HIV/AIDS-NGOs listed in the 2001 ZAN directory has something to do with agriculture, hopefully extendable to the land reform programme.
- DAACs' Terms of Reference (TORs) not explicit but presumed to not be explicit on agriculture and land reform.
- Limited press indications on the impact of HIV/AIDS on agriculture and land reform
- HIV/AIDS implications are also rare.
- Resource centres rarely have explicit information on HIV/AIDS impact on agriculture and land reform.
- Limited collective efforts among farmers unions and NGOs to address HIV/AIDS impact on agriculture and land reform.

The Way forward:

The impact of HIV/AIDS on the land reform programme in Zimbabwe is likely to be quite serious denting the nation's quest for sustainable economic development.

MLARR, farmers unions and NGOs should make more noise to raise awareness on the impending catastrophe.

A decision has to be made quickly by MLARR whether a new farmers union to serve the interests of the new farmer is relevant. However HIV/AIDS management structures under land reform locations are urgently needed. These will:

- Promote best practices
- Manage gaps
- Sound implementation of activities (research; policy debates and improvement; self-help projects as mitigating measures; resource mobilisation & management; shaping coping strategies and creation of effective agro-health institutions.

The bottom line centres on resource mobilisation, effective formulation of coping strategies and their implementation. Effective facilitatory institutions are also mandatory.

HIV/AIDS and Land Reform in Zimbabwe: Policy Recommendations:

This chapter makes the following policy recommendations:

- Government and private sector financial resource mobilisation efforts targeting land reform should also consider safety nets to cushion agriculture from the adverse effects of the HIV/AIDS pandemic.
- Financial institutions should also develop instruments that will under-write the risk to land reform agriculture caused by HIV/AIDS.
- MLARR, ZFU, ICFU should be more proactive in addressing HIV/AIDS adverse impacts on land reform localities.
- MLARR and MoH&CW should embark on joint and sustainable HIV/AIDS impact mitigating programmes among resettled farmers.
- MRCZ, RCZ and ARC should initiate HIV/AIDS impact studies among resettled farming community
- NAC to explicitly fund mitigating projects targeting agricultural responses by resettled communities.
- Effective coping strategies developed should be *implemented*.
- Land reform institutions should strengthen capacity to address challenges posed the HIV/AIDS pandemic among resettled communities.
- Community-based coping strategies such as *Nhimbe* and *Zunde raMambo* also need strengthening.

References

Agricultural Policy Management and Marketing Information System (APMMIS) May 2002: "Market Highlights" Volume 4 Issue 4 20 May 2002.

Barclays Bank (Zimbabwe) Economic Bulletin for December 2001.

Bennell Paul, Karim Hyde and Nicola Swanson (February 2002); "The Impact of the HIV/AIDS Epidemic on the Education Sector in Sub-Saharan Africa" Centre for International Education; University of Sussex; UK.

CFU (1998); "Farm Orphans: Who is Coping?" An Exploratory Study of Commercial Farm Workers' Response to Orphanwood & Foster Care in Zimbabwe.

CSO (September 2001); "Zimbabwe Agriculture Production on Communal Land Irrigation Schemes 2000" CSO Harare.

CSO (October 2001); "Zimbabwe Agriculture Production on Small Scale Commercial Farms 2000" CSO Harare.

FAO (1994); "What has AIDS to do with Agriculture?" Rome.

FAO (1995); "The effects of HIV/AIDS on farming systems in Eastern Africa" FAO Farm Management & Production Economics. Rome.

FAO (May 2002); "Comprehensive Africa Agriculture Development Programme -- AADP" Draft document for New Partnership for Africa's Development (NEPAD) framework.

FAO HIV/AIDS Programme Pamphlets (2002); "HIV/AIDS , Food Security and Rural Livelihoods" Rome. Italy

FAO & UNAIDS (1999); "Sustainable Agricultural/Rural Development & Vulnerability to the AIDS Epidemic" UNAIDS, Switzerland.

Farm Community Trust of Zimbabwe(May 2002); "Assessment of the Impact of Land Reform Programme on Commercial Farm Workers Livelihoods" FCTZ Publication.

FES/ZFU (1997); Data Sets on AIDS and Communal Agriculture Study conducted in 1997.

GoZ (undated); "Zimbabwe's Agricultural Policy Framework 1995-2020" Ministry of Agriculture.

The Herald 21 September 2002 Issue: "Over 600 000 Zimbabweans have full-blown AIDS".

The Herald, Harare, Zimbabwe, Saturday 28th September 2002 issue: "*Commercial Farmers Wasting Time*".

The Herald, Harare, Zimbabwe, Saturday 28th September 2002 issue: "HIV threatens families".

Information and Publicity (GoZ) (2002); Department of Information and Publicity

Kwaramba P. K. (December 1997); "The socio-economic impact of HIV/AIDS on Communal Agricultural Systems in Zimbabwe" FES Economic Advisory Services Working Paper number 19.

Kwaramba P. K. (June 1998); "The socio-economic impact of HIV/AIDS on Communal Agricultural Production Systems: Empirical Evidence from Zimbabwe" Paper prepared for the First Regional Conference for Eastern and Southern Africa on "Responding to HIV/AIDS: Development needs of African Smallholder Agriculture" June 08-12, 1998; Harare (Zimbabwe).

S Laver (2002); "HIV/AIDS The Behaviour Change Challenge" ZimCDC/UZ Medical School.

Ministry of Lands and Agriculture: "The Agricultural Sector of Zimbabwe: Statistical Bulletin 2001".

MoH&CW (2000); "HIV/AIDS, STIs and TB Fact Sheet 2000 June" Planning, Monitoring; Evaluation and Research Unit. National AIDS Co-ordination Programme.

NAC (2002); "Your National AIDS Trust Fund at Work: Disbursements for the Period January to July 2002" Several August 2002 Herald Issues.

SAFAIDS News (June 2002) Volume 10 number 2: "Country Focus: Zimbabwe".

SAFAIDS News (June 2002) Volume 10 number 2: "National HIV/AIDS Best Practices Conference, Malawi".

SAFAIDS News (June 2002) Volume 10 number 2: "Impending Disaster: Food Shortages in the Advent of HIV/AIDS".

Treatment Action Campaign (TAC) and COSATU (2002): "Treat the People: National HIV/AIDS Treatment Congress" Proceedings of the 27-29 June 2002 Coastlands Conference Centre, Durban, RSA.

UNAIDS/WHO 2000 Revised Update: "Zimbabwe: Epidemiological Fact Sheets on HIV/AIDS & Sexually Transmitted Infections" Geneva Switzerland.

Whiteside Allan (1996); "Assessing & Responding to Susceptibility & Vulnerability in the Commercial Agriculture" CFU Presentation.

Zimbabwe AIDS Network (2001); "Zimbabwe HIV/AIDS Directory for 2001: Implementing organisations, Funding/Facilitating Organisations and Private Sector Organisations".

ZimCDC (February 2002); "Strengthening the National Responses to HIV/AIDS: The Role of CDC Global AIDS Programme in Zimbabwe: Country Case Study".

Annexes:**Annex 1: Crop Yields (kg/ha) in Communal Land Irrigation Systems:**

Crop	1996	1997	1998	1999	2000
Grain maize	3 664	3 549	3 040	2 810	2 439
Grain sorghum	-	-	1 083	919	855
Wheat	2 298	2 121	2 297	2 428	1 901
Tobacco	1 396	1 233	1 611	1 516	1 760
Cotton (unginned)	1 763	1 494	1 725	1 541	1 469
Groundnuts (unshelled)	1 372	2 814	1 808	2 304	2 021
Sunflower (threshed)	314	110	537	1 279	1 225
Soybeans (threshed)	1 955	800	1 333	2 833	788
Irish Potatoes	3 147	3 649	3 894	4 175	5 464
Tomatoes	11 004	10 027	12 833	14 530	10 574
Paprika	122	905	1 412	1 507	1 238

Source: CSO Harare.

Annex 2: Crop Yields (kg/ha) in Small Scale Commercial Farming Systems:

Crop	1996	1997	1998	1999	2000
Grain maize	1 529	1 430	1 202	1 483	1 678
Grain sorghum	727	830	567	741	709
Wheat	651	575	444	703	493
Tobacco	948	940	1 000	1 502	1 261
Cotton (unginned)	852	815	897	925	1 042
Groundnuts (unshelled)	669	889	538	779	1 025
Sunflower (threshed)	746	720	706	810	1 020
Soybeans (threshed)	671	473	556	841	816
Sugar cane	-	6 667	-	-	-

Source: CSO Harare.

Annex 3: Investment Indications on Small Scale Commercial Farming Systems:

Assets	1996	1997	1998	1999	2000
Working tractors number	1 058	1 163	1 165	1 157	1 219
Trailer number	970	955	905	937	1 006
Tractor ploughs number	1 334	1 317	1 349	1 302	1 375
Tractor cultivators number	588	590	589	603	604
Tractor planters number	424	413	407	413	422

Source: CSO Harare.

Annex 4: Draft Power Animals and Equipment on Small Scale Commercial Farming Systems:

Parameter	1996	1997	1998	1999	2000
Draft cattle number	34 062	33 843	33 731	32 392	32 243
Draft donkeys number	5 297	5 559	5 557	4 725	4 854
ploughs number	17 569	17 431	17 328	16 295	16 386
cultivators number	11 195	11 109	10 923	10 295	10 345
planters number	4 973	4 903	3 875	3 655	3 599
harrows number	9 292	9 257	9 275	8 646	8 584
scotchcarts numbers	9 572	9 643	9 606	8 935	8 810

Source: CSO Harare.



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