



Using the Household Vulnerability Index to Quantify Impacts of HIV and AIDS on Agriculture and Food Security

Regional Synthesis

by

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Introduction

The fight against HIV and AIDS in the SADC region and Africa in general has intensified in the past decade. A lot of resources have been directed towards mitigating the impact of the pandemic on rural livelihoods. In Zimbabwe, a number of local and international Non Governmental Organizations (NGOs), U N agencies and other Community Based Organizations have been taking the leading role in this endeavor. Although the prevalence rate for the country has been reduced to 20.1%¹, little progress has been made on reducing the impacts of the virus on the livelihoods of those already affected.

Among the common package of intervention strategies currently being used by the Civil Society Organizations in the region include direct food aid, seed packs, promotion of conservation farming and other labour saving technologies, income generating projects, promotion of microfinance enterprises, etc. These strategies have the potential to reduce the adverse effects of HIV and AIDS if they are efficiently targeted. At present, there is no universal, well coordinated and acceptable approach to targeting of interventions by Civil Society Organizations in the SADC region. In the past different methods of targeting community interventions have been employed. These include targeting of Orphan and Vulnerable Children (OVC), female headed households, households with ill members, etc. Although this kind of targeting is welcome in that it helps alleviate some of the impacts of the disease on specific portions of the society, it is not wholistic enough to have a significant impact on the livelihoods of the rural communities as a whole. Studies have shown that HIV and AIDS has a broader livelihoods effect and hence an approach that integrates all the rural livelihoods system in its targeting is likely to have far much greater success in reducing or even reversing the impacts of the pandemic on rural communities.

Household Vulnerability (HVI) Index and HIV & AIDS responses

In 2004, FANRPAN, through an impact study conducted in 7 SADC countries, identified the need to put a quantitative measure to household vulnerability in the presence of HIV and AIDS as pivotal to effective intervention in the HIV and AIDS crisis. Conceptually, a household with better material wealth should be better equipped to cope with HIV and AIDS, yet the level of coping depends on the quantity and quality of such wealth, knowledge about the disease; and other complex societal variables. To date, a comparable approach of quantifying vulnerability known as the Household Vulnerability Index (HVI) has been developed. The HVI was developed by investigating the different dimensions through which households are prone to impacts, applying appropriate weights and scales to each of the impact areas and deriving a household index. The approach has been field tested in three SADC countries, i.e., Lesotho, Swaziland and Zimbabwe.

¹ WHO, 2006

Benefits arising from the use of HVI- The HVI sheds new light on the degrees and levels of household vulnerability introduced by the HIV and AIDS pandemic on household agriculture and food security. Through this approach, households are categorized into three levels of vulnerability, i.e., coping, acute and emergency and then based on these levels development response packages are designed to assist the most vulnerable households fight their external and internal vulnerability. Data collected for the HVI is also a usable indicator for monitoring how assisted households graduate or deteriorate from one level of vulnerability to another. The use of the HVI allows for the tracing of origins of vulnerability thereby shedding light on the package of responses required to move households from one level of vulnerability to another. The HVI provides a tool that can be used by programming and implementing partners to efficiently monitor the effectiveness of their intervention programmes. The tool can also be used to introduce the quantitative mainstreaming of the impact of HIV and AIDS in vulnerability assessments.

Reception of HVI among partners- The HVI model has been widely received in Zimbabwe and Lesotho and indications are that several partners would want to incorporate it in their interventions. There was a general consensus among stakeholders in Zimbabwe as regards the usefulness of the HVI model. The Civil Society Organisations and UN agencies felt that the HVI could improve targeting of interventions meant to reduce the effects of HIV and AIDS. They also indicated that the index has the potential to assist in assessing the effectiveness of HIV and AIDS interventions since it makes it possible to quantify improvements in household livelihoods after an intervention. ZimVAC also felt that the index could go a long way in improving its quality of vulnerability assessments. Certain organizations such as Food Security Network of Zimbabwe (FOSENET), World Vision, World Food Programme, and Food and Agriculture Organisation (FAO) came up in full support of the index and were willing to put it to test within their programmes.

FOSENET has just commissioned a study that intends assess the impacts of HIV and AIDS on agriculture and food security in two districts in Zimbabwe. The study will use the HVI model in its approach. The organization is already working with FANRPAN through their consultants Development Data Consultants who will provide research advice throughout the study on how to use the HVI.

World Vision also felt that the model can improve their food security and livelihoods programmes in the five SADC countries where they operate. Meetings have since been held between World Vision, its partners in Zimbabwe i.e. Care International and Catholic Relief Services (CRS), and FANRPAN to find ways of collaborating in using the HVI. A budget has already been set aside to start using the HVI in WV programs. This initiative will go a long way in improving the HVI and its use in the region.

World Food Programme (WFP) has also indicated that they would want to be part of the process of developing and improving on the HVI. They have also indicated that they would want to test the HVI model using their existing datasets.

FAO whose mandate in the region is to provide a forum where all nations meet as equals to negotiate agreements and debate policy, has been very instrumental in promoting the HVI in Zimbabwe. The organization allowed FANRPAN to participate in the ACWG meetings in Zimbabwe and to make presentations in these meetings. The organization has also published the HVI presentation in its monthly journal article. FAO, in partnership with the Centre for Applied Social Studies at the University of Zimbabwe are currently conducting a study to assess the effectiveness of HIV and AIDS interventions and determinants of their uptake by rural communities in Zimbabwe. In this study FAO has indicated that they would want to use the HVI concept to think through the study. FAO could find the HVI quite useful in their programmes they implement in the region.

Other partners in the SADC region that would find the HVI useful

Several other partners in the SADC region would find the HVI quite useful in their programmes. These include:

Non Governmental Organizations (NGO)- NGOs implementing HIV and AIDS impact mitigation programmes do not use a universally acceptable approach to targeting and monitoring of their programmes. The HVI provides a basis upon which organizations can effectively target and monitor the effectiveness of those programmes. The model also provides an efficient way of deriving appropriate response packages for identified communities.

Famine Early Warning Systems Network (FEWSNET) – This is an international network whose mandate is to strengthen the abilities of African countries and regional organizations to manage risk of food insecurity through the provision of timely and analytical early warning and vulnerability information. The network uses the livelihood framework to food security analysis. It is in this analysis where FEWSNET can use the HVI to come up with refined results that efficiently identify food secure and insecure households, zones, countries or regions. This is important for decision making especially emergency relief planning purposes.

International Food Policy Research Institute (IFPRI) – IFPRI has the potential to adapt and use the HVI in their programmes. IFPRI is a regional research institute whose mission is to provide policy solutions that cut hunger and malnutrition through contributing to capacity strengthening of people and institutions in developing countries conducting research on food policies; and actively engaging in policy communication, making research results available to all those in a position to apply or use them, and carrying out dialogues with those users to link research and policy action. The organization is in a well positioned to incorporate the HVI in its research activities and produce results that would inform policies and responses packages in the countries where they have presence. IFPRI has a strong research team such that the organization could collaborate with FANRPAN in adapting and hence perfecting the HVI in the process.

Regional Vulnerability Action Committee (RVAC)- these committees are responsible for conducting vulnerability assessment in all the SADC countries. Of late there has been a disgruntlement from the civil society organizations in the region on the lack a significant consideration of HIV and AIDS as a factor that affects food security. The HVI provides a method by which the RVAC can quantitatively include impacts of HIV and AIDS in its analysis. In this way the RVAC would be able to determine the extent to which HIV and AIDS is affecting food security in the SADC region.

Field Testing of the Household Vulnerability Index Model

HVI Analysis

Lesotho- The HVI was field tested with data from four districts, i.e., Berea, Mokhotlong, Maseru and Quthing. This data was collected in the 2004 impact study. A sample of 225 households was used for this purpose. A summary of study findings reveals that Maseru district contributed a larger part of households, which were in the coping level of vulnerability and was followed by Berea. In the case of acute level households, Mokhotlong was on the lead with the highest proportion of households, followed by Berea, which is not considerably different from Maseru. Quthing district had the lowest proportions of households that fell under both coping and acute levels of vulnerability. All districts did not have households, which were classified under emergency level households. Probably Maseru and Berea were better off in terms of vulnerability as they had relatively larger proportions of households who could cope with the situation of being affected by HIV and AIDS, whereas Mokhotlong district was worse off in this regard.

Swaziland- The HVI was field tested with data in two districts, i.e., Gege and Luyengo. A sample of 30 households was used for this purpose. In Swaziland the results show that, for both Gege and Luyengo, the majority of the households were in the coping level, while the rest (smaller proportion) were in the acute state. A significantly higher proportion of households were in the coping level in Gege than in Luyengo ($P < 0.05$). Percentage households classified under emergency level stood at 13.3% in both study areas. While the majority of the households needed assistance but could still cope (CLH) with respect to the physical capital dimension in Gege, the reverse was true in the case of Luyengo. The latter area (Luyengo) had a higher proportion of its households in the acute level than the proportion in the coping level. This difference between the two areas was statistically significant ($P < 0.05$).

Zimbabwe- The HVI was field tested with data in two districts, i.e., Seke and Marange. A sample of 236 households was utilized for the study. Vulnerability in the two study areas was found to be very high though results showed that most of the vulnerability was emanating from different livelihoods aspects. There was marked variability in the HVIs across sampled households reflecting different degrees of vulnerability across households. The average vulnerability for Seke was 0.49 whilst that of Mutare was 0.53. The average HVI for Seke fall within the coping level range while that of Mutare is in the acute level indicating that Mutare seems to be in a worse situation by comparison. The

average HVI across all households was found to be 0.51, indicating that on average most households fell in the acute level of vulnerability and hence requires some kind of assistance. On aggregate, 60% of the households were found to be in the acute level while 40% are still coping.

Tracking vulnerability among sampled households

Lesotho- Low maize production and livestock index for households affected by HIV and AIDS, which were included in the 2004 study, rendered these households highly vulnerable to the impact of the disease. This is due to the importance of livestock and maize production for the rural livelihoods and food security in Lesotho. Dimensions that contributed more to households' vulnerability are: physical capital, human capital and financial capital, with human capital being on the lead, followed by physical capital and financial capital respectively. Higher vulnerability under physical capital was measured by the impact on changes in household productive capital asset base, through livestock index, and changes in household investment choices through livestock sales were impacted more. For human capital, the area that was impacted more by HIV and AIDS was gender implications, which include female and/or child headed households and households' disintegration due to HIV and AIDS. In the case of financial capital, changes in household income and consumption were more impacted by HIV and AIDS through increased medical and decreased food expenses, and decreased households' crop sales.

Zimbabwe- The study established that though different households had identical vulnerability levels, the vulnerability was caused by different impacts. Vulnerability among households in Seke emanated from financial and social capitals of a household. Most important were impacts on access to credit loans, cash cropping and social support from NGOs. Households with better access to credit, sold part of their surplus produce as well as those who are receiving some form of support from NGOs are less vulnerable while those characterized as highly vulnerable do not have access to credit facilities, do not produce for the market or have difficulties in marketing of their crops and are receiving no support from NGOs. For households in Marange communal area vulnerability observed was attributable to financial and natural capitals. Again, vulnerability was coming from the unavailability of access to credit loans. On the other hand HIV and AIDS affects a household's ability to manage its natural resources and this makes it more vulnerable.

Lessons Leant

Lesson 1- The HVI managed to assess vulnerability of households, both at pre-testing and during field testing. This showed that the model is useful in identifying vulnerability levels for households if applied in the appropriate manner. However, in Zimbabwe, challenges in application of the model were posed by the hyperinflationary environment that made it difficult to use some indicators such as total regular household income, input costs, revenue from crop or livestock sales, etc. Such indicators are difficult to compare when

converting them to a universal currency, especially to enable for comparisons with results from other countries. Currently, there exist three currency conversion rates operational in the Zimbabwean economy, i.e., the UN, official and parallel market exchange rates.

Lesson 2- The use of the HVI enabled a deeper understanding of the impact of HIV and AIDS on agriculture and food security within specific countries. The model provided an advanced analysis of the vulnerability of HIV and AIDS affected households and was able to categorize the households according to three vulnerability levels. The categorization of households provides a way of targeting especially where there are limited resources. CSOs can decide to prioritize emergency level households as those that first receive assistance followed by acute and then by coping level households. Where there are specific mitigation programmes such as labour saving technologies the HVI brings out that group of households that have problems of labour and these should be targeted. The model may also be used to monitor effectiveness of intervention programmes and can also give an indication of the exit period of donors in communities. In this respect the model also gives an indication of how assisted households can be weaned off.

Lesson 3- Analysis has showed that most of the sampled households in Zimbabwe were in coping and acute level and non at emergency level. But there are extreme upper cases of these categories for acute and coping level households respectively. Households with such HVIs will always be a challenge when it comes to developing their response packages because they are almost acute and emergency level households. There might be a need to come up with more categories of vulnerability which will help in developing more appropriate or refined response packages for intervention programmes.

Lesson 4- HVI analysis is best conducted with data that would have been collected using the HVI field tools. Use of any other data sets which were initially collected for purposes other than the HVI presents challenges in analysis. For example the use of secondary data (data from 2004 study) in pre-testing of the model resulted in the use of surrogate variables in some cases, hence the possibility of having measurement error in variables used for computation of HVI.

Recommendations on Relief or Development packages for Policymakers

The study in the three countries brought to the fore the need to address pertinent policy issues. It was observed that sampled vulnerable households faced a lack of the following; access to credit, limited participation in natural resource management, receive limited support from civil society organisations, unable to produce for the market and in some cases are child headed. The following strategies are thus recommended to address the aforementioned issues:

Improving access to rural financial markets- Intervention programmes for vulnerable households with limited access to credit should be aimed at enhancing their financial

assets. There is a need to enhance access to rural financial credit markets by affected households. Several strategies could be used and these include:

- Promotion of internal savings and lending schemes
- Provision of inputs such as fertilizer and seed on credits on condition that farmers will pay back after harvest
- Promotion of microfinance projects so that households could start generating income for themselves
- Financial institutions should develop tailor made credit packages for the rural farmer such as micro- credits.

Promotion of income generating projects- Vulnerable households in the study can no longer afford to invest in natural resource management and turn to the forest for survival. Instead of involving themselves in unsustainable coping mechanisms such as collecting firewood for re-sale provisionally sustainable income generating projects could improve on their livelihoods. The income generating projects will provide the much needed income to acquire food and clothes, pay for education, meet medical expenses and invest into the land in the form of improved soil fertility, etc.

Increased support from civil society organisations- There is limited Ngo support in all the areas of study. In some cases CSOs were providing HBC services without complimentary food assistance. It is essential for interventions in such areas to provide holistic packages that take cognizance of all livelihoods aspects. There is also a need for governments to create an enabling environment conducive for increased support from funding partners. This enhances support given to target communities.

Enhance household productivity- If households were able to produce for the market there will be opportunities to earn income and then enhance their livelihoods. A number of factors determine whether affected households grow crops for the market but of interest to the two study areas are inadequate water or rainfall, shortages of draft power and labour and non affordability of fertilizers and seeds. A number of recommendations solve most of these problem and these include:

- Establishment of irrigation schemes that will allow for an all round production season
- Promotion of labour saving technologies such as conservation farming
- Promoting the cultivation of Open Pollinated Varieties (OPVs) that will allow households the opportunity of retaining seed for the next season.

Enhance social support policies for OVC- social policy should be informed by the current state of OVC that came out of the study. It is important to note that most child headed households fell under the acute level category. Without requisite support such households may deteriorate to emergency level or even disintegrate. Hence the need for targeting child-headed households as a particular special group.

Recommendations for HVI use

Observation 1: *There exists a need for an effective universal targeting system used by CSOs in their HIV and AIDS intervention programmes*

Recommendation 1: The HVI provides a simple but effective approach to targeting of intervention programmes. CSOs in the region should consider the use of the model in targeting and also monitoring the effectiveness of their intervention programmes. The HVI would also assist CSOs in determining the point of entry and exit of any intended programme.

Observation 2: *VACs barely attempt to mainstream HIV and AIDS in their vulnerability assessments*

Recommendation 2: HIV and AIDS is a major issue hampering developmental efforts in the SADC region. Hence any approach to address livelihoods of households should consider mainstreaming HIV and AIDS otherwise the approach fails to yield positive results. VACs within the region should ensure that HIV and AIDS are mainstreamed as an important aspect that affects households' vulnerability to food security. If this happens recommendations that will come out of their assessments will be robust and likely to succeed if implemented. The HVI provides the right approach to mainstreaming HIV and AIDS into these assessments and can be adopted for this purpose.

Observation 3: *Researchers make no effort to quantify vulnerability of households when conducting HIV and AIDS impact studies resorting to just mentioning the impacts and classifying households according to gender issues such as OVC, female headed, etc.*

Recommendation 3: There is value addition that could come of research work that provides practical solutions to developmental problems. Researchers working on different areas such as HIV and AIDS, agriculture, food security, health, etc may utilize the model to come up with practical solutions in their studies. In the process such research could help improve on the model which will be a positive development to both the academic and development world.

Observation 4: *Not all stakeholders participated in the HVI meetings and presentations that were made throughout the study.*

Recommendation 4: There is need for FANRPAN to continue with the promotion of the HVI model in the region. The strategies thereof can be different but at least FANRPAN has to continue to be active within the Parliamentary Portfolios of Health and Agriculture in the region. The organization could use regional SADC gatherings to promote the HVI to all SADC countries.

Observation 5: *CSO fear that though the model is a very useful tool that could improve their targeting systems, few funding partners are prepared to finance an initial targeting process before the onset of every programme.*

Recommendation 5: The model will not be useful without the support from the policy makers in the SADC region and funding partners who provide the financial resources for its application. Efforts should be made to ensure that there is a continued dialogue especially with the responsible policy makers so that there is unwavering government support in the promotion of the model use in government and other development partners' programmes. Efforts should be made to address how the CSOs can mobilize resources for HVI application.

Observation 6: *A number of CSOs and other UN agencies have already expressed an interest in collaborating with FANRPAN in using the HVI model in their respective programmes or studies.*

Recommendation 6: There is a genuine need to build on these opportunities to form strategic partnership with organizations willing to take the HVI to another level. This will act as one of the strategies for promoting the widely use of the HVI in the development community. The partnerships will provide an opportunity to apply the HVI on a wider spectrum and maybe in different environments. This is important as it then assists in evaluating the universality of the model.