In 2001 the Food and Agriculture Organization (FAO) of the United Nations predicted that the HIV epidemic would have far reaching effects on food security, household composition and community structures among small-scale farmers (FAO, 2001). Evidence of the predicted extensive hunger was found in all three of the regions in Namibia. Close to 90% of the households do not grow enough staple food to meet daily calorie needs. None of these households have other sources of income - whether livestock, crops, or cash - that make up for the shortfall in basic food production. Over 70% of the households produce half, or less than half, of the food they need to survive. This is clearly a famine, though it does not look like a famine. Whole communities are not affected. There are no mass movements of refugees in search of food. This starvation takes place in seemingly normal communities. The hungry are interspersed with unaffected households. To the outside observer there is no sign of hunger.

Using the basic household survey tool of the NHIES 2003/04, a total of 144 HIV affected households were surveyed in three regions of Northern Namibia (Kavango, Oshana and Oshikoto) during November 2004. Data was collected on household demographics, income and expenses. According to the FAO, Namibians derive 53% of their calorie needs from grains. In the areas of the study, pearl millet (omahangu) is the staple grain. Using the calorie requirements of adult males and females, as well as the calorie value of cooked omahangu porridge, it was possible to calculate the amount of threshed omahangu an average household from the sample needed to meet the FAO estimate of calorie needs. This came to 1705 kilograms of omahangu a day for the average household. The survey found that 86% of households did not produce the amount needed to meet roughly half of their calorie requirements via
omahangu production neither other crops, nor livestock filled the shortfall. Two thirds of the sample owned livestock, however the majority had numbers too small to allow for regular off-take and thus were unable to supplement to the diet. The only conclusion is that the majority of households surveyed are hungry for parts of every year.

A similar study carried out in 2003 in the Ohangwena Region found that almost 60% of HIV affected households studied had at least one day in the previous month where they did not have food (FAO, 2003). This study points to a loss of labour and knowledge of farming practices which in turn led to smaller fields being planted and lower crop yields. In 2000 an analysis of the epidemic on livestock production also pointed to the loss of both labour and knowledge as factors, which contribute to decreases in livestock numbers. Livestock assets are likely to be the first to be sold once a household’s medical expenses increase due to illness brought about by AIDS. Cultural practices also play a role, as widows do not always inherit livestock or croplands after a husband dies.

The HIV epidemic has dynamic impacts throughout the communal farming community. While national results show an overall decline in HIV prevalence, specific sites associated with the regions surveyed indicate a mixed pattern. Some sites are in decline, others on the rise and still others showing little change. These fluctuations could be the result of mortality, actual change in behaviour, failure to change behaviour, migration, or issues in the Sentinel Survey itself. Unfortunately, the Sentinel Survey does not measure behaviour. It is not clear if basic demographic information of women attending antenatal clinics is collected. This data would complement the Sentinel Survey, and enhance our understanding of the epidemic.

### Coping Strategies

Two different types of coping strategies were found in HIV/AIDS-affected households, namely

1. Household consolidation
2. Crop substitution

Household consolidation varies from region to region. Household consolidation occurs as female-headed households join together after male adults die, that is women band together to make up for the shortfall of labour. Not only do women take on tasks in agricultural production previously done by men, they also devote time to caring for other sick relatives. Well over half of the households studied have orphans, most of whom are under 15 years old. This too, is an additional burden on women. Some women chose moving into other households, with their children, in search of additional adults with whom they can share their burdens. Evidence for this practice was found in the Kavango and Oshana, although in Oshikoto there was no incidence of this practice.

The second coping strategy involves crop substitution. Some households are switching from omahangu to maize. The rationale for this switch is that maize requires less labour – particularly in terms of weeding – and has a better market value. Yet, this switch is more of a Devil’s Trade-off since maize is both a heavy feeder and it depletes the soil. Maize is not as drought tolerant as millet. Namibia is the most arid country in Sub-Saharan Africa and droughts are regular. Commercial producers of maize in Namibia expect one good crop in every three years. All the sites in this study fall well outside the maize growing area – an area with sufficient rainfall to produce a reliable crop. As a food, maize has fewer amino acids than omahangu, and does not provide an adequate nutritional substitute. This is crucial for HIV infected people, who need higher levels of nutrition. Of the 50 households in the sample that planted maize, 42 produced less than 150 kilograms. None of the households that grew maize sold any, thus the belief that this crop will bring income is false.
Households affected by the HIV epidemic come under stress. When those households depend largely on agricultural production for their livelihoods, the stress can be severe. Evidence indicates that the majority of affected households are not meeting their basic food requirements. Assisting these households will require effective means of identifying the food insecure, as well as targeted responses, over a long period, to provide a sustainable livelihood. We can classify households in the sample as being either in a state of collapse in terms of their farming operations, or those in a state of near-collapse. Collapsed communal farming households can be further divided into those that are in severe crisis, and those that are in crisis. Using these definitions strategies for assistance can be devised.

Severe Crisis Households: Those HIV-affected households defined as being in “severe crisis” produce less than 750 kg of omahangu per year and the majority, 78% of households sampled (113 households) fell into this category. Twenty-nine of these households have cattle, and 43 households have goats. Over half of those who own livestock do not have enough for regular off take for either consumption or sale. Given the very low levels of production, hunger is a constant feature of life. It should be remembered that 11 of these households produced no crop at all. This category of households is not coping. Consideration must be made as to whether or not it is best to support these households with assistance in agriculture, or to provide them with direct support via disability pay outs, pensions, support for orphans or a basic grant. Food for work programs may not be successful with these households because there may not be enough healthy adults who are able to work.

Crisis Households: These households produce between 751 and 1500 kg of omahangu per year and constituted 15% of the sample (23 households). Thirteen of these households had cattle, and 14 had goats. As with the severe crisis group, most livestock owners did not have enough animals for regular consumption or sale. Hunger too was a constant feature of these households, though perhaps slightly less frequent. s with the previous grouping, it is questionable whether intervention through agriculture is a viable solution. These households will require much of the transfer support noted for severe crisis households. Some may be able to revive their agricultural production, though they may require extensive assistance in doing so. A key consideration for both types of households is to ensure that children stay in school so that they will be better off in future. If nothing is done, the future generation would be less productive and poorer. This would be a short term solution which also has long term benefits.

Near Crisis Households: These households produce more than 1500 kg of omahangu per year and constituted 6% of the households interviewed. All of these owned cattle and goats. Some of these households were producing to an extent that they can sell surplus. These households will require monitoring to identify if, or when, their farm operations begin to collapse. Assistance should be geared towards preventing these households from collapse. Their agricultural operations need support to withstand the impacts of the epidemic.

Conclusion

Namibia needs to know more about the extent and depth of this salient famine. Namibia is a geographically vast country with a small, widely dispersed population. Within the country a number of different farming systems are practiced. Colonial-era divisions in infrastructure, access to markets, and access to services remain. Small-scale farmers in Namibia, operate within a wide range of farming systems, levels of access to markets and services, and socio-cultural levels. The NEPRU study focuses on one area with strong similarities across the three regions surveyed. Even so, variation emerged across the three regions. Variations in the levels of hunger seen as well as the responses by communal farmers in all regions of the country also need to be understood by policy makers.
References


http://www.fao.org/docrep/meeting/003/Y0310E.htm


Background

The newsletter is based on a study entitled The Impact of HIV and AIDS on Rural Agricultural Producers in Three Regions of Namibia by Dr. Ben Fuller and Deon van Zyl of the Namibian Economic Policy Research Unit. This study was commissioned by the Food and Natural Resources Policy Analysis Network (FANRPAN) in Botswana, Lesotho, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. In all countries studied, the threat of the HIV epidemic to household food security was confirmed regardless of the agro-ecological zone or farming system followed. The pervasive nature of the regular hunger found serves as a grim warning to policy makers on the depth and extent of this new type of food crisis.

Compiled By Dr. Ben Fuller and Deon van Zyl

The newsletter was extracted from a Country Report: The Impact of HIV and AIDS on Rural Agricultural Producers in three Regions of Namibia

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The NHIES 2003/04 is a comprehensive survey of over 10,000 households in Namibia. A number of different instruments are used to collect data. In the NEPRU survey, the base questionnaire (Form 1) was used.