

PHD Thesis, WITS University
March 2012

Impacts of HIV/AIDS mortality on food security and natural resource utilisation in rural South Africa

Julia Mambo
CSIR. Natural Resources and the Environment
JMambo@csir.co.za

ABSTRACT

AIDS mortality, its linkages as a determinant and consequence of food security and its impact on natural resource utilisation by mainly rural populations, has not been well researched, especially their effects on rural livelihoods. With the high epidemic prevalence and persistent food insecurity, natural resources are and will continue to play a key role as a buffer against stresses and shocks in rural livelihoods. Determining linkages between household food security, adult AIDS mortality, and how these affect natural resource utilisation at the village level was the objective of this research. The overarching goal of sustainable natural resource utilisation in Agincourt Demographic Surveillance Site (DSS) was determined through three research questions outlined as follows; What is the status of food security, AIDS mortality and Natural resource utilisation in Agincourt?; What is the relationship between dependence on natural resources as a source of food and or livelihood to resource degradation?; and What are the household and community drivers of household food security? Statistical analysis was used to evaluate the prevalence of food insecurity and the reliance on natural resources while remote sensing was used to assess resource availability and identification of possible natural resource degradation hotspots. More than half of the population in the DSS is food-secure, in 2004, with an even smaller hungry population in 2007. HIV/AIDS and non-HIV/AIDS adult mortality, analysed at village level are underlying drivers and determinants, affecting availability of income which is a direct driver of food insecurity. Availability of income, through social grants, remittances or wages, and delay or non-receipt of this income results in food insecurity in some households. Food production, affected and constrained by climate variability, is a less stable and less popular means of attaining food. More than half of the Agincourt population utilises natural resources to supplement dietary diversity and household income, although there is a significant reduction in households using natural resources in 2007 compared to 2004. Resource degradation is noted in the village commons especially between the highly food-insecure villages and are identified as environmental degradation hot spots. The identification of synergies among these factors in policy design and for interventions is essential for poverty alleviation, improved health and sustainable utilisation of natural resources and rural livelihoods.