Quantifying Vulnerability:
The Household Vulnerability Index (HVI) and Social Protection Policy

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The HVI Framework

Understanding the Impact of HIV and AIDS on Agric & Food Security
The Conceptual Framework

Understanding the Overall Outcome
Vulnerability and the Vulnerability Context

Measuring Vulnerability
The 17 Dimensions under 8 Categories

Quantifying Vulnerability
The Household Vulnerability Index (HVI) and the different levels of Vulnerability

POLICY ACTION
Well Targeted Social Protection Policy
(Social Protection is advocated for as a right)
What is an AIDS-Affected Household: Three sets of Circumstances

Impact of Chronic illness

Depending on the existing level of food security in the household, this can mean spending is switched from other household needs to healthcare or that assets are sold to raise extra cash.

Impact of Death

The research on this subject can often simplify the situation by focusing on changes that occur in a limited range of household activities before and after a death, and not considering the overall results for the food security of the household.

It takes time for the full impact of the loss of a household member to become apparent, as the household may be undergoing significant transformation at this point.
Impact of Supporting Orphans

What is an AIDS-Affected Household: Three sets of Circumstances

Again, with this context there can be a tendency to simplify the likely outcome by suggesting that taking in orphans adds to the burden of the household, with a limited income being stretched by having to support an additional dependent.

In reality, there can be a wide variety of outcomes depending on both the status of the orphan and the status of the hosting family.
The Overall impact on Households is on the livelihoods
The main Outcome is Increased Household Vulnerability

Two sets of factors external to the household but which exert a significant influence on their livelihoods, are “processes and structures” and the “vulnerability context”.

Vulnerability is often described as having two components: “external vulnerability”, which refers to exposure to shocks or hazards; and “internal vulnerability”, which refers to the capacity to cope with or withstand those shocks.
The use of “vulnerability” as an absolute status - for example by simply describing chronically ill or female-headed households or orphans as vulnerable groups should be avoided. It should especially not be used synonymously with need, as it should reflect the likelihood of a particular outcome arising for that group in the future.
The Household Vulnerability Index (HVI) is calculated to establish the different levels of vulnerability that the impact of HIV/AIDS on agriculture and food security has introduced in households.

The different Household Vulnerability Indices (HVI) reflect different degrees of vulnerability. Three levels of vulnerability are of special importance for social protection policy programme design.

Vulnerability level 1 = Coping level Households (CLH) – a household in a vulnerable situation but still able to cope
Vulnerability level 2 = Acute level households (ALH) – a household that has been hit so had that it badly needs assistance to the degree of an acute health care unit in a hospital. With some rapid-response type of assistance the family may be resuscitated.

Vulnerability level 3 = Emergency level Households (ELH) – the equivalent of an intensive care situation – almost a point of no return – but could be resuscitated only with the best possible expertise.
Dimensions of the HVI

A. Human Capital Dimensions

1. Changes in family labour size dependency ratio (family size and composition).

2. Mobility of household members

3. Changes in Household Demographic structure

B. Financial Capital Dimensions

4. Changes in household expenditure mix

5. Changes in investment choices (investment expenditure)

6. Impact on household productive assets

7. Accessibility to food

8. Impact on household food and nutrition security
C. Social Capital Dimensions

9. Support networks

D. Physical Capital Dimensions

10. Impact on household Market Access, income and expenditure patterns

11. Changes in the capital asset base (capital stocks)

12. Impact on household productive assets

E. Natural Capital Dimensions

13. Environmental degradation

F. Gender Dimensions

14. The implication on gender cut across the various dimensions in different degrees.

G. Production systems

15. Changes in optimal farm-household production systems and decisions

16. Impact on agricultural extension services
H. Consumption Patterns

17. Utilization of Food
The HVI is calculated using a model developed in a spreadsheet application. The model computes the sum of the weighted vulnerabilities across all dimensions to give the particular household’s total vulnerability $V_{hh i}$ to HIV and AIDS, that is:

$$\sum_{j=1}^{m} X_{wj} / \sum_{j=1}^{m} w_j = V_{hh i}$$
Social protection has three key elements – vulnerability, unacceptable levels of deprivation, and public action.

Initially, social protection was aimed simply at “raising the consumption of the poor through publicly-provided transfers”, but more recently the focus has shifted to “helping low-income households cope with income fluctuations as well” (Morduch and Sharma 2002).

Formal safety nets are often short-term in nature and are designed to re-distribute resources to poor people to reduce chronic poverty or to protect them against risks to their livelihoods e.g. risks posed by disease, loss of employment, drought, conflict, financial crises, or macroeconomic adjustment.
“Social protection” is a newer term that incorporates safety net programmes but also includes a role for “renewed state involvement”, emphasizes a “longer-term development approach”, includes “social assistance and insurance, and is often “advocated for as a right rather than a reactive form of relief”.

Social protection policy, thus, addresses not only programmes aimed at reducing the impact of shocks and coping with their aftermath, but also interventions designed to prevent shocks and destitution in the first place (IFPRI, 2004).