

Guidance Document on
Integration of Nutrition, HIV and Gender
in Vulnerability Assessment and Analysis

Version 1.0

October 2015



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EXECUTIVE SUMMARY

The Southern African Development Community (SADC) established the Regional Vulnerability Assessment Committee (RVAC) in 1999 in order to facilitate and support coordinated vulnerability assessment and analysis (VAA) in the region. VAA work has evolved, expanded and intensified over the past 15 years and notably since the launch of SADC's Regional Vulnerability Assessment and Analysis (RVAA) Programme in 2005. Besides facilitating formation of National Vulnerability Assessment Committee (NVAC) structures, the RVAA Programme has provided overall guidance on the food security information generated by NVACs. This has included support towards integration of longer-term development issues, such as climate change, urbanization, gender, HIV and nutrition – although these issues are yet to be fully incorporated in VAA. This gap led to the decision to develop a guidance document (GD) for integration of nutrition, HIV and gender in VAA based on global and regional guidance, experiences and lessons from selected countries. A Technical Working Group (TWG) on integration was established in October 2013 and has since then facilitated a consultative and participatory process among NVACs leading to the development of the GD.

The main purpose of the GD is to provide “a harmonized guidance framework for the integration of nutrition, HIV and gender information in VAA adaptable to specific country contexts to enhance the understanding, interpretation and use of vulnerability information across the SADC region”. In this GD, integration refers to the combined collection, analysis, interpretation, and reporting of nutrition, HIV, gender and food security data to inform the relationships and interactions between food security, nutrition, HIV and gender.

The GD is presented in four sections as follows:

- Section 1: Introduction – provides the background and context for understanding the relationships between food security, nutrition, HIV and gender. It presents a food and nutrition security conceptual framework that provides guidance on understanding and analyzing the diverse factors (including nutrition, HIV and gender) influencing the food and nutrition security outcomes. The causal relationships explain the multi-sectoral and multi-layered determinants that need to be taken into consideration when interpreting these factors in VAA. A Sustainable Livelihoods Framework (SLF) is also presented as guidance in establishing factors/ indicators needed to assess the impact of HIV and AIDS and gender inequality on food and nutrition security.
- Section 2: Indicators for integrating and measuring nutrition, HIV and gender in VAA – outlines a set of indicators for measuring and integrating nutrition, HIV and gender in VAA. The indicators have been agreed upon as the minimum set of indicators for which data is required to allow for adequate integrated analysis. The selection of which indicators to use will be dependent on the objectives of the assessment and the need/feasibility to collect such data by the NVAC and specialized stakeholders.
- Section 3: Approaches and methodologies – highlights approaches and methodologies for conducting VAA in an integrated manner and identify suitable options for adoption by Member States (MS). Such approaches include both the macro/ meso-level (area/ national/ community/

household), such as Household Economy Approach (HEA) that provides baseline data on livelihoods; and the micro-level (household/individual) such as Household Sample Survey (HSS) that allows for the inclusion of nutrition, HIV and gender indicators that are best obtained at the household and individual level; as well as secondary data use (SDU) including the Integrated Food Security Phase Classification (IPC).

- Section 4: Analysis guidelines, data preparation/capture, processing and reporting – provides the technical and operational steps that MS should consider in integrating nutrition, HIV and gender in VAA.

It is expected that the GD and the many years of experience it represents through the valuable insights and suggestions received from MS across different professions and expertise will help to

advance progress towards achieving the integration of nutrition, HIV and gender in VAA.

The GD is a live document that will be continuously updated based on lessons learned and experiences of Member States.

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
AIS	AIDS Indicator Survey
ART	Antiretroviral Therapy
DHS	Demographic and Health Survey
DMMC	District Disaster Management Committees
DRC	Democratic Republic of Congo
EA	Enumeration Area
EFSA	Emergency Food Security Assessment
ENA	Emergency Nutrition Assessment
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
FEWSNET	Famine Early Warning Systems Network
FGD	Focus Group Discussions
FNSWG	Food and Nutrition Security Working Group
FNSS	Food and Nutrition Security Strategy
GAM	Global Acute Malnutrition
GD	Guidance Document
HDDS	Household Dietary Diversity Score
HEA	Household Economy Approach
HIMS	Health Information Management System
HIV	Human Immunodeficiency Virus
HSS	Household Sample Survey
IFRC	International Federation of the Red Cross
IPC	Integrated Food Security Phase Classification
IYCF	Infant and Young Child Feeding
LIAS	Livelihood Impact Analysis Spreadsheets
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
MS	Member States
MUAC	Mid-Upper Arm Circumference
MVAC	Malawi Vulnerability Assessment Committee
NSO	National Statistics Office
NVAC	National Vulnerability Assessment Committee

OCHA	Office for the Coordination of Humanitarian Affairs
OVC	Orphaned and Vulnerable Children
PDA	Personal Data Assistant
PLHIV	People Living with HIV
PPES	Probability Proportional to Estimated Size
PPS	Probability to Proportion to Size
RVAA	Regional Vulnerability Assessment and Analysis
RVAC	Regional Vulnerability Assessment Committee
SADC	Southern Africa Development Community
SDU	Secondary Data Use
SLF	Sustainable Livelihoods Framework
SMS	Subject Matter Specialists
SPSS	Statistical Package for Social Sciences
SUN	Scaling Up Nutrition
TWG	Technical Working Group
UN	United Nations
UNAIDS	United Nations Joint Programme on HIV and AIDS
UNICEF	United Nations Children's Fund
VAA	Vulnerability Assessment and Analysis
VAC	Vulnerability Assessment Committee
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
ZIMVAC	Zimbabwe Vulnerability Assessment Committee
ZVAC	Zambia Vulnerability Assessment Committee

ACKNOWLEDGEMENTS

The Guidance Document (GD) was developed under the technical supervision of the Southern African Development Community (SADC) Regional Vulnerability Assessment Committee (RVAC) Technical Working Group (TWG) on integration of nutrition, HIV and gender into vulnerability assessment and analysis (VAA) formed in October 2013. The development of this GD is the result of a multi-disciplinary participatory process of consultation and dialogue at the regional, national and individual levels.

Acknowledgement is given to all professionals and stakeholders who through their diligence have implemented VAA and some level of integration of nutrition, HIV and gender at different levels, and thus contributed to the content of the GD. The multi-country and multi-organizational contributions were invaluable in helping to fashion a set of

options and tools designed to address the current needs of countries and their VAA programmes. The valuable insights and suggestions received from several Member States (MS) across different professions and expertise were also instrumental in the shaping of this document and are deeply appreciated. Numerous experts also provided valuable inputs and contributions to the GD.

SECTION 1: INTRODUCTION

1.1 Background

The Southern African Development Community (SADC) established the Regional Vulnerability Assessment Committee (RVAC) in 1999 in order to facilitate and support coordinated vulnerability assessment and analysis in the region. The Vulnerability Assessment Committee (VAC) system includes the Regional Vulnerability Assessment Committee (RVAC), a multi-agency committee and the National Vulnerability Assessment Committees (NVACs), established under the leadership of national governments in Member States (MS). The current mandate of the RVAC is to “strengthen national and regional vulnerability assessment and analysis systems in order to inform policy formulation, development programmes and emergency interventions that lead to a reduction in vulnerability”¹. The NVACs now carry significant influence on issues of vulnerability assessments and this is largely due to the fact that the information generated is generally credible. The information generated by NVACs has played a central role in informing policy and programming decisions. A previous impact review² established that NVACs had performed well at the level of informing relief interventions but had achieved less impact on longer-term programming to address broader vulnerability caused by poverty, food insecurity, climate change, urbanisation, HIV, nutrition, gender and other factors.

The AIDS pandemic presents a major threat to economic growth, agricultural development and food security in the SADC region. The impact it has on the lives and livelihoods of individuals, families, communities and nations makes it unique as a priority regional issue. There are 14.7 million people living with HIV in SADC, which is 59 percent of the total population of people living with HIV in Sub-Saharan Africa and 42 percent of the total number in the whole world³. Out of this number, 7.7 million are women, which is 60 percent of

the total women living with HIV in Sub-Saharan Africa and 48 percent of the number of women living with HIV in the whole world. SADC also has 1.48 million children living with HIV, which is 51 percent of the children living with HIV in Sub-Saharan Africa and 46 percent of the total global number⁴. HIV prevalence in the majority of the SADC countries is above 10 percent indicating that it is still a major factor to take into account in vulnerability assessments. The issue has important policy implication for a range of sectors, not least health but also employment and labour, social welfare, agriculture, industrial development, education and overall development planning. It is for these reasons, that political commitment to address HIV and AIDS is high. The SADC Secretariat has a dedicated unit dealing with HIV and AIDS. The unit also coordinates the implementation of the SADC HIV and AIDS Strategic Framework that is aimed at intensifying measures and actions to address the impact of HIV⁵. At Member State level, countries have developed national policies on HIV and AIDS to deal with the issue.

Good nutrition is essential for achieving food security and attaining a strong immune system. HIV and other factors (such as inadequate access to water and sanitation, poor caring practices etc.) undermine the immune system and contribute to malnutrition. Similarly, malnutrition leads to immune impairment, worsens the effects of HIV, and contributes to a more rapid progression of the disease particularly in the absence of antiretroviral treatment (ART) and/or prophylactic medications. The problem of malnutrition is persistent and undermines economic growth as well as exacerbates poverty in the SADC region. This situation is reflected in child nutritional status across the region

1. SADC, 2011: RVAA Strategic Plan and Funding Document, January 2012-december 2016

2. SADC, 2011: The Impact of Vulnerability Assessment and Analysis Work in the SADC Region

3. SADC Gender Protocol Barometer 2015

4. *ibid*

5. SADC HIV and AIDS Strategic Framework 2010 - 2015

where in some countries levels of stunting reach 48 percent and prevalence of wasting is between 2 to 8 percent⁶. While child malnutrition is sometimes seen as one of the possible outcomes of household food insecurity, and therefore a late warning indicator, it is also a vulnerability factor that determines the impact of food security stresses and shocks that needs to be addressed to enhance resilience. SADC is committed to improving the nutrition status of the population in the Region, as reflected in the following four policy documents: the Regional Indicative Strategic Development Plan (RISDP)⁷; the Health Policy Framework; the SADC Protocol on Health; and the SADC Food and Nutrition Security Strategy (2015-2025)⁸. All these documents give prominence to access to safe, healthy and nutritious food to ensure economic wellbeing of all the peoples of Southern Africa.

Gender inequality remains a major challenge for food security in the SADC region. Gender refers to the roles, duties and responsibilities, which are culturally or socially ascribed to women, men, girls and boys⁹. The term differs from the biological differences between male and female, i.e. sex. Unlike the biology of sex, gender roles and behaviours can change, sometimes relatively quickly, even if aspects of these roles originated in the biological differences between the sexes¹⁰. Women's limited access to productive assets such as land in southern Africa has direct implications on household food security. For example, a study carried out in Botswana and Swaziland showed the linkages between gender equality, food security and HIV infection¹¹. Data from the study showed that women with insufficient food have a 70 percent higher probability of lacking control in sexual relationships

and over 50 percent higher risk of engaging in intergenerational sex. In addition, there was an 80 percent higher risk of selling sex for money or resources and a 70 percent increase in unprotected sex. From this analysis, if a deduction and linkage is made between secure land rights and HIV prevention and mitigation, lack of land rights has enormous implications for women's food security.

Gender equality and women's empowerment is an established regional priority and receives high political commitment. To demonstrate this commitment, the SADC Protocol on Gender and Development was drafted and adopted in 2008¹². Since it came into existence, it has been signed by 13 out of 15 Member States of SADC. The protocol has concrete, time-bound commitments to achieving key strategic objectives and includes article 18 that relates to agriculture development and food security.

Against this background, the demand for longer-term livelihood programmes that address HIV, nutrition and gender cannot be over-emphasized. Since the formation of the RVAC, efforts towards addressing these challenges have been flagged. As a result, VAA work has also evolved, expanded and intensified over the past 15 years, notably since the launch of SADC's Regional Vulnerability Assessment and Analysis (RVAA) programme in 2005. The SADC RVAA Programme has facilitated the establishment of NVACs and related structures and provided overall guidance on the information generated from vulnerability assessments and analysis. This included support towards integration of longer-term development issues, such as climate change, urbanization, HIV and nutrition.

6. SADC 2015 Vulnerability Assessments Dissemination Meeting Report

7. See <http://www.sadc.int/themes/health/>

8. Food and Nutrition Security Strategy 2015-2025

9. SADC Protocol on Gender and Development

10. "Integrating Gender into the World Bank's Work: A Strategy for Action," 2002, p. 2

11. Weiser SD, et al. 2007: Food Insufficiency Is Associated with High-Risk Sexual Behavior among Women in Botswana and Swaziland.

PLoS Med 4(10): e260 doi:10.1371/journal.pmed.0040260

12. SADC Protocol on Gender and Development, 2008

In 2013, SADC organised a workshop to provide a platform for knowledge sharing and dissemination on on-going work and emerging issues of climate change and VAA in the region. Among other outcomes, the seminar identified entry points for climate change considerations at different stages of vulnerability assessments. Other efforts have included support to NVACs on urban vulnerability assessments. An expert working group was formed in 2012 and with its support; guidelines on conducting urban assessments have recently been completed. Building on these initiatives and in order to further enhance the capacity of the NVACs to effectively analyse and respond to vulnerabilities to food and nutrition insecurity, a Technical Working Group (TWG¹³) was established under the RVAC in October 2013, to guide and support the process of integrating nutrition, HIV and gender in VAA. The development of this GD is based on global and regional experiences and lessons from selected countries¹⁴.

1.2 Conceptual Frameworks

Integration of nutrition, HIV and gender in VAA should start from the conceptualisation phase – thinking about the linkages and interactions of these factors with the vulnerability context and determinants of food and nutrition security. By understanding relationships between multiple factors and how they interact, one can be able to see what leads households to food and nutrition insecurity. NVACs have various conceptual and analytical frameworks adapted to each country's context in order to understand vulnerabilities to food and nutrition insecurity. These include the Household Economy Approach (HEA); Integrated Food Security Phase Classification (IPC); Food and Nutrition Security Framework; and the Sustainable Livelihoods Framework

(SLF). Two of these are discussed in Section 2 to clarify their usefulness for integrated analysis. Better assessment and analysis of these factors will also contribute to make informed decisions for adequate response to food and nutrition insecurity, for which a response analysis framework clarifying the decision pathways can be developed (example in Annex 2).

NVACs can further consult the UNICEF Conceptual Framework¹⁵ on causes of malnutrition for guidance on the analysis of nutrition indicators. Similarly, the SLF¹⁶ is useful for understanding the impact of HIV and gender on food and nutrition security.

1.2.1 Food and Nutrition Security Conceptual Framework

Figure 1 below shows a food and nutrition security framework that can be used to guide the integration of nutrition, HIV and gender in the existing NVAC frameworks. This conceptual framework has been adapted from the Zimbabwe Vulnerability Assessment Committee (ZIMVAC) food and nutrition security conceptual framework and allows for integration of nutrition, gender and HIV. The desired ultimate outcome is improved household food and nutritional status and the framework shows interactions that can lead to either positive/improving or negative outcomes. The food and nutrition security framework presented has been built around the conceptual framework for nutrition (adapted from UNICEF) at its core, strengthening it with a more elaborated conceptualisation of the structural and contextual factors that determine food security, and taking household food security and national development as its ultimate outcomes. The immediate causes (food intake and health status) and underlying causes (food security, care, and access to health services) at the individual

13. The TWG comprises of technical representatives of the Food and Nutrition Security Working Group of Southern Africa (FNSWG): FAO, UNICEF, WFP, WHO, FEWSNET, INGOs (WVI, OXFAM); the SADC RVAC, and six national VACs: Democratic Republic of Congo (DRC), Lesotho, Malawi, South Africa, Tanzania, and Zimbabwe.

14. Countries involved were DRC, Lesotho, Malawi, Tanzania and Zimbabwe

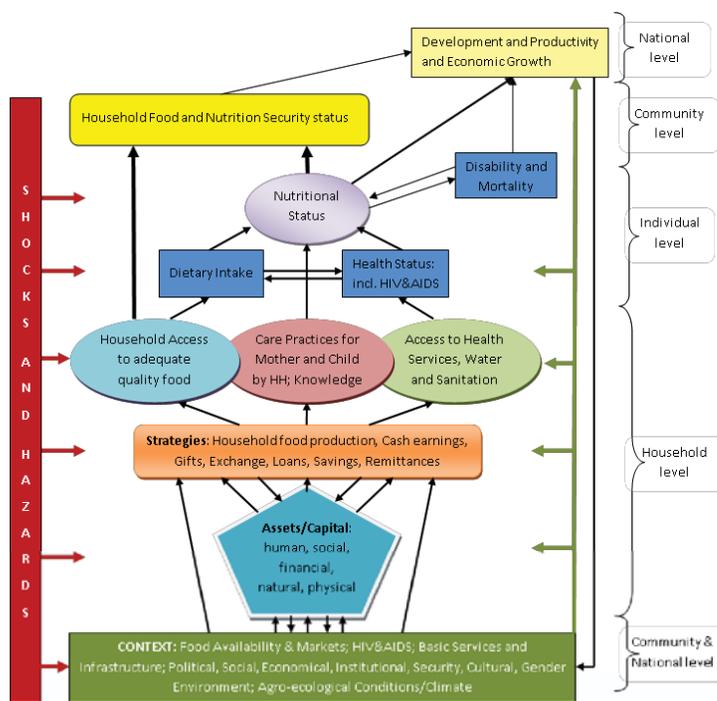
15. <http://www.unicef.org/nutrition/training/2.5/4.html>

16. Stokes S, 2000: Measuring Impacts of HIV/AIDS on Rural Livelihoods and Food Security, prepared for FAO, Rome, Italy

and household level that determine individual nutritional status are in the centre of the framework. The basic or root causes part of the framework have been adapted to reflect a stronger conceptualisation of interactions between households, their capital or assets, and the institutional and policy environment at the community level, leading to a choice of livelihood strategies, using the SLF. This institutional and policy environment is determined by the structural, political and ideological and

resource context, that has influence at all levels. External shocks and hazards like droughts, floods, and conflict impact at all levels by changing the context, capital and viability of livelihood strategies, as well as at the underlying and immediate causal level. The food and nutrition security framework clarifies how food availability and access and HIV and gender determine nutritional status and its impact on food and nutrition security.

Figure 1: Food and Nutrition Security Conceptual Framework



Source: Adapted from the Zimbabwe Vulnerability Assessment Committee (ZIMVAC) food and nutrition security conceptual framework

1.2.2 Sustainable Livelihoods Framework

The Sustainable Livelihood Framework (SLF) in Figure 2 below¹⁷, is one way of “organizing” the complex issues surrounding food and nutrition insecurity at the household level and can be modified and adapted to local circumstances and priorities.

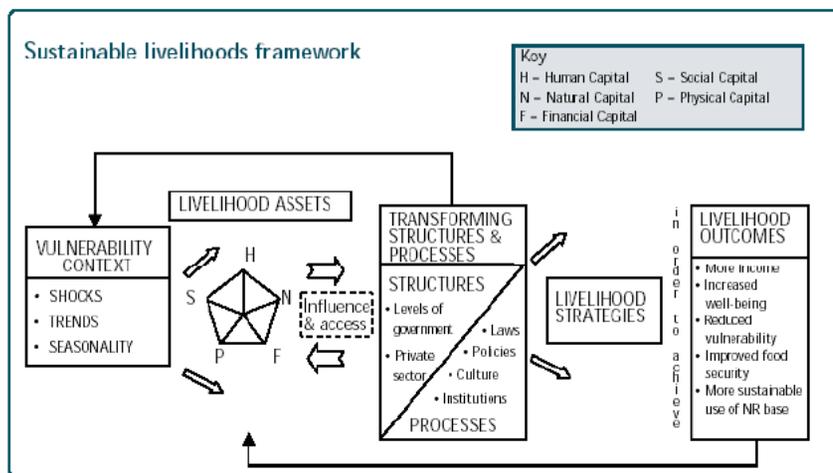
The framework is constituted by five main components:

- Vulnerability context, made up by the external environment in which people exist. It comprises trends (e.g. in population, governance, economics), shocks (e.g. natural, economic, conflicts), seasonality (e.g. of prices, production, employment opportunities).

17. DFID, 1999: Sustainable Livelihoods Guidance Sheets, Department for International Development

- Livelihood assets (stores, resources, claims and access), what people need/have in terms of assets or capital endowments in order to achieve sustainable livelihoods (i.e. human, social, physical, natural, financial capitals).
- Structures and processes, or the institutions, organizations, policies and legislation that shape livelihoods (e.g. existence of credit organizations, land policies/legislation)
- Livelihood strategies, the range of activities and choices that people make to achieve their livelihood goals.
- Livelihood outcomes, the achievements/quality of living resulting from the livelihood strategies pursued (e.g. more income, increased well-being). The important idea behind this component is that people's livelihoods are observed and investigated rather than making quick conclusions.

Figure 2: Sustainable Livelihoods Framework



Source: DFID Sustainable Livelihoods Guidance Sheet 2

In particular, the SLF, with its five “assets”: human, natural, financial, physical and social, is proposed as a main analytical framework for establishing factors/indicators needed to assess the impact of HIV and AIDS and gender inequality on food and nutrition security and vice versa. The livelihood’s “assets” are at the core of the livelihoods analysis, and constitute the starting point from where individuals and households can choose their “strategies” to cope with specific shocks, trends and seasonality.

The two constitute the most measurable, people-focused and people-dependent

components of the framework. Analysis of livelihoods can be done at different hierarchical levels, but is most commonly conducted at the household level (the basic unit of the livelihoods analysis). The other livelihoods components (“vulnerability” and “structures”) are not as directly people-dependent in that they constitute the external environment in which households are embedded; while the “outcomes” are the results of the interaction of all the framework’s components.

The “assets” and the “strategies” are the components where HIV and gender

impacts are clearly evident at the household level. While livelihood options are greatly influenced by external factors, they are also very much affected by the composition and dynamics of households. In particular, the notion of “assets” and “strategies” entail the issue of access, which is influenced by a wide range of factors including HIV and gender. For instance, it is widely recognized that women and men have different access to agricultural assets/inputs, such as fertilizers,

credit, machinery, land, livestock, which in turn affects agricultural productivity and food and nutrition security (FAO, 2011)¹⁸.

Table 1 below presents factors that should be considered when analysing data through an HIV and gender lens. These can also be useful during questionnaire design to make sure that the HIV and gender component is included in the assessment and analysis.

Table 1: Summary Impact of HIV and AIDS and gender inequality on livelihood assets

	Human Capital	Financial Capital	Social Capital	Physical Capital	Natural Capital
HIV and AIDS (PLHIV and/or HIV affected HH)	<ul style="list-style-type: none"> • Loss of labour of ill family member • Less time for agriculture, employment & income generating activities • Withdrawal of children from school to work and/ or save costs • Intergenerational transfer of skills/ knowledge damaged 	<ul style="list-style-type: none"> • Loss of income of ill member and possibly of carer • Increased spending on healthcare • Readjustment of income earning activities; typically reduced disposable income compared to pre-illness 	<ul style="list-style-type: none"> • Institutions weakened, e.g. social support networks overburdened • Exclusions from institutions due to stigma • Outgoing gifts/remittances reduced • Elderly become carers instead of being cared for 	<ul style="list-style-type: none"> • Sale of productive assets to cover healthcare costs and/or other costs of living • Sale/ slaughter of livestock • Widows & orphans lose productive assets to relatives 	<ul style="list-style-type: none"> • Reduced maintenance of natural resources, reducing productivity • Sale/rental of land for income • Change in land use patterns • Widows and orphans lose tenure or land
Gender inequality (Landless Female Agricultural Labourer)	<ul style="list-style-type: none"> • Loss of labour capacity • Low education status • Limited skills • Lower productivity 	<ul style="list-style-type: none"> • Less income • Low wages • Limited access to credit 	<ul style="list-style-type: none"> • Low social status • Discrimination against women 	<ul style="list-style-type: none"> • Poor housing, water supply & communications • Lack of access to necessary tools and equipment for production 	<ul style="list-style-type: none"> • Landless • Limited access to common property resources • Loss of land tenure rights

Source: Adapted from Harvey, 2003¹⁹

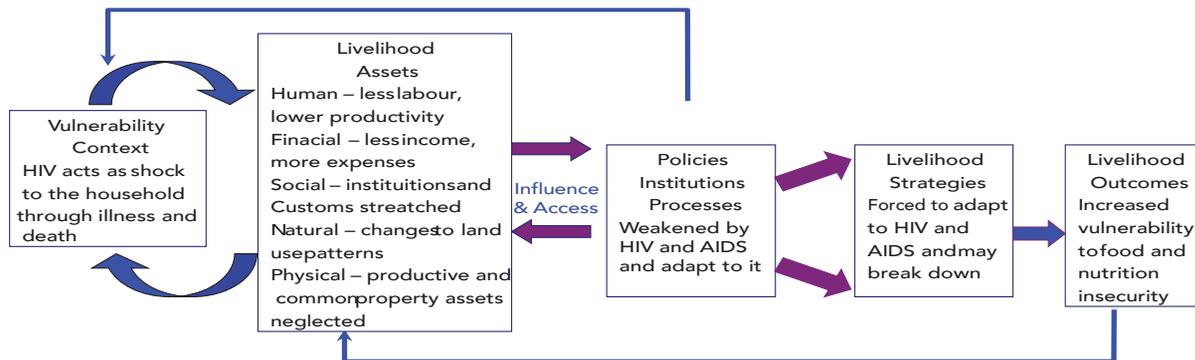
In the context of HIV and AIDS, the modified framework presented in Figure 3 below, underlines that HIV-related illnesses and deaths have both an immediate and long-term impact on households’ and communities’ vulnerability to food and nutrition insecurity. It suggests considering the impact of HIV and AIDS at all levels of livelihoods (human, financial, social, natural and physical) as well as the indirect impact

that policies, institutions and processes have on livelihoods. Finally it draws attention to the feedback loop generated by the epidemic: livelihood assets are often negatively impacted by HIV and AIDS; livelihood strategies are usually adapted in response to HIV and AIDS, but the strategies can hardly avoid the increases in food and nutrition insecurity. This increases susceptibility to HIV.

18. FAO, 2011: The State of food and Agriculture. Women in agriculture: closing the gender gap for development, FAO

19. Harvey P, 2003: HIV/AIDS: What are the implications for humanitarian action? Humanitarian Policy Group, ODI

Figure 3: Sustainable livelihoods in the context of HIV and AIDS



1.4 Purpose of the Guidance Document

The GD is an indicative reference document for Member States and stakeholders in Southern Africa on “how to” integrate nutrition, HIV and gender information in VAA. “Integration” in this GD refers to the combined collection and/or analysis, interpretation, and reporting of nutrition, gender, HIV and food security data to inform the relationships and interactions between food security, nutrition, HIV and gender. The GD does not prescribe ONE APPROACH, but provides several options on approaches, methodologies and tools – adaptable to specific country contexts – to enhance the understanding, interpretation and use of vulnerability information across the SADC region.

The GD seeks to enhance integration of nutrition, HIV and gender into VAA through the four approaches to ensure comparability of information at national and regional level. These approaches are:

- Household Economy Approach (HEA) as an Analytical Framework complimented by a Household Questionnaire as the field methodology;
- Household Sample Survey (HSS) based on probability sampling survey;
- Secondary Data Use (SDU) from technical sector assessments such as Nutrition Surveillance, HIV surveillance and Gender studies;
- Integrated Food Security Phase Classification (IPC), which is a set of protocols to classify the severity and causes of food

insecurity that provide actionable knowledge by consolidating wide-ranging evidence, to ensure integration.

1.5 Objectives of Integrating Nutrition, HIV and Gender in VAA

The overall objective of integrating nutrition, HIV and gender in VAA is to have a more holistic approach to policy response, planning, prioritization and decision making for addressing underlying and immediate causes of food and nutrition insecurity including the interactions and interrelations with HIV and gender inequality. Specifically the integration of nutrition, HIV and gender in VAA seeks to;

- Generate and provide information that is necessary for decision making and action;
- Provide a clear understanding of causal factors that are important to monitor and act upon in ensuring food and nutrition security; and
- Support the formulation of evidence based policies and programmes (short, medium, long term) in response to identified gaps.

1.6 Target Audience

The GD is primarily aimed at NVACs and other concerned stakeholders in the Member States who contribute to the undertaking of VAA. Donors can play an important role with regard to evidence-based response formulation based on a harmonized approach to VAA as outlined in the guidance and supporting

national priorities, strategies, structures and policies in food and nutrition security.

1.7. Pre-requisites for successfully integrating nutrition, HIV and gender in VAA

- Adequate financial allocation in national budgets of Member States; where necessary additional financial support should be mobilized in a coordinated manner in order to avoid duplication.
- Coordination with specialized technical agencies to optimize and avoid duplication of efforts and allocation of resources. The NVAC technical structures should include stakeholders and sector specialists from other government ministries in addition to the host ministry, and agencies, such as

nutrition, HIV, women's affairs and gender to ensure capacity and ownership for integrated vulnerability analysis.

- Sustained building of analytical capacities of NVACs to successfully integrate nutrition, HIV and gender in VAA.

SECTION 2: INDICATORS FOR INTEGRATING NUTRITION, HIV AND GENDER IN VAA

2.1 Introduction

There is no single index or score that can comprehensively describe the food and nutrition security situation at the household level. As a result, various indicators from a variety of sources have been collected and analysed by Member States in an effort to comprehensively describe food and nutrition security. This section provides a set of indicators (reflected in Table 2) that have been aligned to the SADC Regional Food and Nutrition Security Strategy (FNSS) 2015-2025 Results Framework²⁰ and

also endorsed by SADC NVACs in a validation workshop held in November 2014. The indicators have been agreed upon as the minimum set of indicators for which data is required to allow for adequate integrated analysis. The selection of which indicators to use can be dependent on the objectives of the assessment and the need/feasibility to collect such data by the VAC and specialized stakeholders. Slow changing indicators can be included only in baseline assessments.

Table 2: Indicators for integrating nutrition, HIV and gender in VAA

AREA	INDICATORS	
NUTRITION	Anthropometric Measurements	
	Global Acute Malnutrition (GAM)	Mid Upper Arm Circumference (MUAC)
	Stunting	Overweight and Obesity
	Household Food Consumption	
	Food Consumption Score (FCS)	Household Dietary Diversity Score (HDDS)
	Infant and Young Child Feeding Practices (IYCF)	
	Minimum Dietary Diversity	Consumption of iron rich/iron fortified foods
	Minimum Meal Frequency	Minimum Acceptable Diet
	Water, Sanitation and Hygiene	
	Household access to improved water sources	Household access to improved sanitation
HIV	Child Morbidity and Care	
	Disease prevalence in children 6 - 59 months of age	Health seeking behaviour
	HIV related chronic illness	Proportion of child head of households
GENDER	Proportion of orphans in households or population	Effective Dependency Ratio
	Access to and control over productive resources	
	Percentage of households with agricultural machinery and equipment by sex of head of household	Percentage of households using chemicals by type of chemical and sex of head of household
	Ownership and decision making power over productive resources	
	Average landholding size by sex of head of household	Average number of livestock species by type of species and sex of head of household
	Role of men, women, boys and girls in agricultural production	
Ratio of males and females economically active in productive activities by age	Percentage of households participating in producer organizations by sex of head of household	

2.2 Nutrition Indicators

Nutritional status data can be used to provide insights in food and nutrition vulnerability and help define areas of vulnerability and who may be vulnerable.

This is an important determinant for targeting both relief and development interventions. Anthropometric measures of the body's physical dimensions are commonly used as indicators for

²⁰ SADC, 2014: Regional Food and Nutrition Security Strategy (September 2014)

nutritional status. Additionally food consumption indices are used as proxy indicators for nutritional status. The advantage of collecting the anthropometric indicators by NVACs is that they can be disaggregated to smaller geographical or administrative areas and directly statistically correlated to other food security and livelihood information collected. Nutritional status data may be available from secondary sources, reducing costs for data collection. Ideally, nutritional status information is collected at the individual level rather than at the household or community level.

2.2.1 Indicators of nutrition status of children Under 5

2.2.1.1 Prevalence of Global Acute Malnutrition (GAM)

Definition

Percentage of children aged 6-59 months with weight for height below minus two standard deviations (<2 Z-score) and/or bilateral pitting oedema, calculated using the World Health Organization (WHO) child growth standards.

Rationale

It is measured using weight-for-height reflecting recent and spontaneous exposures to inadequate food intake and/or poor health (vulnerability).

Notes on Measurement

Child weights and heights or lengths are measured and bilateral pitting oedema is checked in a representative sample of children aged 6-59 months that allows for reporting on prevalence data. Emergency Nutrition Assessment (ENA) calculator can be used to determine the sample size for the area.

2.2.1.2 Prevalence of Stunting

Definition

Percentage of children aged 6-59 months

with height for age below minus two standard deviations [<2 Z-scores (moderate + severe)].

Rationale

It is measured using height-for-age reflecting long time exposures to inadequate food intake and/or poor health (vulnerability). Stunting does not necessarily have to be reported annually, but every two years in line with the World Health Assembly (WHA) resolution on reporting of the Global Targets and Scaling up Nutrition (SUN).

Notes on Measurement

- It is measured in children aged 6-59 months;
- Height, age and sex are already collected for GAM – computing stunting becomes easier, requiring no additional resources.

2.2.1.3 Prevalence of overweight and obesity

Definition

Percentage of children aged 6-59 months with weight for age:

- Above two standard deviations [>2 Z-scores (overweight)]; and/or
- Above three standard deviations [>3 Z-scores (obesity)].

Rationale

Countries in the region are experiencing a sharp increase in diet related chronic diseases due to overweight and obesity. Through urbanization, the population has shifted from consuming nutrient-rich traditional, indigenous foods towards consumption of junk, more refined and imported foods.

Notes on Measurement

- It is measured in children aged 6-59 months;
- Height, age and sex are already collected for GAM – computing overweight becomes easier.

2.2.1.4 Mid-Upper Arm Circumference (MUAC)

Definition

Measures percentage of children aged 6-59 months with MUAC

- Less than 115 mm (severe);
- 115 mm to 124 mm (moderate);
- 125 mm to 134 mm (at risk).

Rationale

The global guidelines recommend MUAC only as a screening tool at the individual level and not as a tool to measure the prevalence of malnutrition in a population. There are challenges in the interpretation of the MUAC data at population level, given that there is no direct comparability between weight-for-height and MUAC, and to date there are no population benchmarks for MUAC. However, it is a simple method of identifying malnourished young children requiring limited resources. The MUAC of children gives an indication of the degree of wasting and is a good predictor of mortality. Research shows that it is equally good, if not better, than other measurements for screening young children and selecting those needing therapeutic feeding²¹. Area and population specific trend analysis can overcome part of the benchmark challenge.

Notes on Measurement:

- It is measured in children aged 6-59 months for screening for acute malnutrition for community level interventions and during food and nutrition emergencies for referral to adequate nutritional services including quick referral to health services for medical nutrition therapy of severe acute malnutrition.
- MUAC is used when weight and height measurements are not feasible, or in

combination with weight and height measurements.

2.2.2 Household Food Consumption

Food consumption can be assessed at household level, but preferably at individual level, particularly for vulnerable groups like young children and pregnant and lactating women.

2.2.2.1 Food Consumption Score (FCS)

Definition

A composite score for food consumption at the household level as recorded from a 7-day recall and is based on 12 weighted food groups.

Rationale

- This can be considered the base of food security analysis. It is used as a proxy indicator of household access to food;
- It provides an understanding of the household's food consumption pattern and gaps of certain groups as well as their access to food and livelihood strategies.

Notes on Measurement

- It records for the seven days prior to the interview how many days food in each of twelve categories were eaten by anyone in the household (usually aggregated from a more extensive country specific list);
- For urban food security assessment, questions on "out of home" food consumption should be included to assess additional food consumption, on top of the household diet;
- The 12 food groups can be found in the document Food Consumption Score Nutritional Quality Analysis – Technical Guidance Note, WFP, 2015.

²¹ Sharpe, A and Struthers S, 2012: A longitudinal study of MUAC as a measure of paediatric malnutrition in Yei, South Sudan: Lessons from a hospital link: Lessons from a hospital link, South Sudan Medical Journal

2.2.2.2 Household Dietary Diversity Score (HDDS)

Definition

A composite score for dietary diversity at the household level as recorded from a 24-hour recall and is based on 12 or 16 predefined food groups. Less than five food groups highlights poor dietary diversity, while as 5-6 food groups is moderate and more than six food groups is acceptable dietary diversity.

Rationale

- It is used as a proxy indicator for nutrition density;
- It provides an understanding of the household's food consumption pattern and gaps of certain groups as well as nutritional importance of the various food groups consumed by the household.

Notes on Measurement

- Estimate household food security and current quality and sufficiency of household diet based on food consumption patterns and diversity of consumption;
- It records for the 24-hour period prior to the interview how many food groups were eaten by anyone in the household (usually aggregated from a more extensive country specific list);
- It also estimates current quality and sufficiency of household diet based on food consumption patterns, diversity of consumption;
- For urban food security assessment, questions on out of home food consumption should be included to assess additional food consumption, on top of household diet;
- Using one 24-hour recall period does not provide an indication of an individual's habitual diet, but it does provide an assessment of the diet at the population

level and can be useful to monitor progress or target interventions.

2.2.3 Infant and Young Child Feeding Practices

WHO provides guidance for collection of indicators to assess infant and young child feeding practices, to capture the quality of complementary feeding practices, as a proxy for nutrient intake. The following four indicators are part of this wider indicator guidance and for comparability should be collected as per the guidelines. For guidance, see Indicators for Assessing Infant and Young Child Feeding Practices, Part II, WHO, 2010.

2.2.3.1 Minimum Dietary Diversity

Definition

Proportion of children 6-23 months of age who received foods from four or more of the seven food groups during the previous day.

Rationale

Dietary diversity is a proxy for micronutrient adequacy of food intake.

Notes on Measurement

The sample universe of this indicator is last-born children 6-23 months of age living with their caretakers such as mothers, fathers or grandparents. The seven food groups used for calculation are grains, roots and tubers; legumes and nuts; dairy products (milk, yogurt, cheese); flesh foods (meat, fish, poultry, liver/organ meats); eggs; vitamin A rich fruits and vegetables; and other fruits and vegetables.

2.2.3.2 Minimum Meal Frequency

Definition

- For breastfed children, the percentage of children 6-23 months of age who received solid, semi-solid, or soft foods,

the minimum number of times or more during the previous day (minimum for children 6-8 months = 2 times; for children 9-23 months = 3 times);

- For non-breastfed children, the proportion of children 6-23 months of age who received solid, semi-solid, soft foods or milk feeds four or more times during the previous day and night.

Rationale

The number of meals that an infant or a young child needs in a day depends on how much energy the child needs (and, if the child is breastfed, the amount of energy needs not met by breast milk), the amount that a child can eat at each meal, and the energy density of the food offered.

Notes on Measurement

The sample universe of this indicator is last-born children 6-23 months of age living with their caretakers such as mothers, fathers or grandparents.

2.2.3.3 Minimum Acceptable Diet

Definition

- For breastfed children, the proportion of breastfed children 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day;
- For non-breastfed children, the proportion of non-breastfed children age 6-23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day.

Rationale

The indicator combines standards of dietary diversity and feeding frequency by breastfeeding status. The indicator provides a useful way to track progress and simultaneously improve the key quality and quantity dimensions of children's diets.

Notes on Measurement

The sample universe of this indicator is last-born children 6-23 months of age living with their caretakers such as mothers, fathers or grandparents

2.2.3.4 Consumption of iron-rich or iron-fortified foods

Definition

Proportion of children 6-23 months of age who received an iron-rich food or iron-fortified food that was specially designed for infants and young children, or that was fortified in the home during the previous day and night.

Rationale

Prevalence of iron-deficiency anaemia is high in the region, and therefore it is important to have a proxy indicator for iron intake based on the variety and quantity of ingested iron rich foods

Notes on Measurement

The sample universe of this indicator is last-born children 6-23 months of age living with their caretakers such as mothers, fathers or grandparents.

2.2.4 Water, Sanitation and Hygiene

2.2.4.1 Access to improved water sources

Definition

Percentage of households accessing (using) improved water sources by food security status.

Rationale

Various studies have indicated the significance of environmental contamination and communicable diseases in determining nutrition status²². An "improved" drinking-water source is one

²²Bradley A, Woodruff and Michael O Hiarlath, 2011: Uganda report on the integrated survey of household food security and nutritional status in children less than 5 years of age, Karamoja, Uganda 2011-2012.

that, by the nature of its construction and when properly used, adequately protects the source from outside contamination, particularly faecal matter²³. Measures proportion of population with access to the following improved water sources: piped water, public tap, borehole, covered well, protected spring, (directly captured) rainwater (not run-off), or bottled water.

Notes on Measurement

A set of questions is asked about main and alternative water sources and the methods employed by households to make the water safe. For standardised guidance, please see Core Questions on Drinking-water and Sanitation for Household Surveys, WHO/UNICEF 2006.

2.2.4.2 Access to improved sanitation facilities

Definition

Percentage of household members accessing (using) improved sanitation facilities which are not shared.

Rationale

An “improved” sanitation facility is one that hygienically separates human excreta from human contact²⁴. Measures proportion of population with access to the following improved sanitation facilities: flush toilet to sanitary sewer system or septic system or pit latrine, used only by members of the household.

Notes on Measurement

A set of questions are asked to assess 24 hour access to improved sanitation facilities that are not shared. Any type of

shared or public latrine²⁵ is considered inadequate or unimproved. The standardised guidance for this indicator is as for indicator 2.2.4.1.

2.2.5 Child Morbidity and Care

2.2.5.1 Disease prevalence in children 6-59 months of age

Definition

Percentage of children less than 6-59 months of age with:

- diarrhea in the last 2 weeks;
- coughing with difficult breathing in the last 2 weeks;
- fever with chills in the last 2 weeks.

Rationale

Estimates the cumulative 2-week prevalence of malaria, diarrheal disease and acute lower respiratory infection in children 6-59 months of age.

Notes on Measurement

The caretaker such as mother, father or grandparent is asked a set of questions or the Child Health Card is used when available.

2.2.5.1 Health care seeking behavior

Definition

Percentage of children less than 6-59 months of age with diarrhoea, fever with difficult breathing and fever with chills in the last 2 weeks for whom advice or treatment was sought from a health facility or provider.

²³WHO/UNICEF, 2014: Joint Monitoring Programme for Water Supply and Sanitation: Definitions and Methods. www.wssinfo.org/definitions-methods/watsan-categories.

²⁴ibid

²⁵Shared sanitation facilities are facilities of an otherwise acceptable type shared between two or more households. Shared facilities include public toilets.

Rationale

It estimates health care seeking behaviour during 2-week prevalence of malaria, diarrheal disease and acute lower respiratory infection in children 6-59 months of age. Adequate health care can reduce the impact of child morbidity incidences on nutritional status.

Notes on Measurement

The caretaker such as mother, father or grandparent is asked a set of questions or the Child Health Card is used when available.

2.3 HIV and AIDS Indicators

Ascertaining whether or not a household has a person living with HIV (PLHIV) or has lost someone due to AIDS related illness is nearly impossible on a large scale assessment given the sensitivity of the information. Additionally blood tests are required to confirm HIV status. In view of the high prevalence of HIV in the SADC region, the use of proxy indicators to identify households affected by HIV is suggested to address issues of ignorance of HIV status and related stigma. Population based surveys usually consider a household as affected by HIV when there is an adult member or members who is/are chronically ill; if the household experienced the death of an adult member due to chronic illness; and/or if the household is hosting orphaned and vulnerable children (OVC).

Proxy indicators are treated as independent variables that are then analysed with a host of food and nutrition security variables such as income, agricultural production, coping strategies, and food security outcome measures to assess HIV vulnerability to food and nutrition insecurity.

2.3.1 HIV-related chronic illness**2.3.1.1 Percentage of households with chronically ill adult aged 15-49 years****Definition**

This is the presence of a chronically ill adult aged 15-49 years in a household. The age range may be context-specific. The term "chronic illness" can easily be misunderstood. In this guidance document, an individual is usually considered "chronically ill" if s/he lives in a condition or with a disease that prevents him/her from being fully functional for at least three out of the past 12 months.

Rationale

Generally it is difficult to get reliable answers to direct questions on HIV status. Most people do not disclose their seropositive status due to fear of stigma while others do not know their HIV status. However, it is good practice to triangulate the prevalence of chronic illness with the HIV estimates provided by other sources because not all chronic illness is HIV-related. Secondly, with the availability of antiretroviral treatment (ART), not all PLHIV are chronically ill.

Notes on Measurement

Using chronic illness as a proxy may lead to inclusion and exclusion errors. Errors may be reduced by strengthening enumerator training and improving data collection tools. Chronic illness must be clearly defined to interviewees. Also add data such as age, relationship to head of household and decreased capability to work. It can be easily included in demographic data of a household questionnaire. Chronic illness is an efficient proxy if:

- HIV prevalence is high, above 10 percent;

- There are no other factors/illnesses that cause high prevalence of chronic illness;
- It flags the presence of health related shock within the household.

2.3.2 Prevalence of child headed households

Definition

Percentage households headed by children by food security status.

Rationale

This is a potentially strong proxy indicator as child head of household are less likely than female or elderly head of household to have other causes.

Notes on Measurement

Direct assessment of prevalence in assessment areas and households requires integration of relevant questions in a household questionnaire triangulated with secondary data from a variety of sources such as AIDS Indicator Surveys (AIS), Multiple Indicator Survey reports (MIS) in some countries, Demographic and Health Survey (DHS) reports and WHO Epidemiological Fact Sheets.

2.3.3 HIV-related orphan-hood

Definition

Proportion of orphans in households or population

Rationale

AIDS deaths in adults occur at the time in their lives when they are forming families and bringing up children. Orphan-hood is frequently accompanied by prejudice and increased food and nutrition insecurity, which may lead to the adoption of survival strategies that increase vulnerability to HIV. Data can be used to compare food security status, livelihood assets, strategies and coping mechanisms of households with

orphans and households without orphans. It is important to control the results by the number of orphans living in the households, for example percentage of households with no orphan, one orphan, and two or more orphans.

Notes on Measurement

It is important to know what “orphan” means in each community (i.e. mother/ father/ both parents died), and therefore whether the orphan is part of the nuclear family or has come from another family. Age and gender of orphan will also be significant. It is advisable to collect data at individual level. Additionally data on vulnerable children (defined as children 0-17 years of age who are living in a household with a chronically ill adult or a household that recently experienced death of an adult member from chronic illness) may also be collected depending on objective of the assessment.

2.3.4 Effective Dependency Ratio

Definition

It is the proportion of dependants in relation to productive members of the household. In a standard dependency ratio, dependents are children and the elderly (i.e. it is purely age based). The “effective dependency ratio” takes chronically ill and sometimes otherwise disabled adults out of the productive category and into the dependents. Some dependency ratios do not use strict age criteria, but are adapted to the local ages at which children take on adult roles and at which elderly people cease to contribute to household income and production.

Rationale

Data can be used to compare food security status, livelihood assets, strategies and coping mechanisms of households. Households with high dependency ratio are presumed to be more vulnerable to food and nutrition insecurity.

Notes on Measurement

Estimates burden of non-productive members on income contributing adult members of the household aged 18 to 59 years. Data is collected using demographic data of a household questionnaire. It is more suitable when averaged by community for cross tabulation with community-level data, as it is a better proxy for HIV prevalence.

2.4 Gender Indicators

In principle, gender needs to be mainstreamed into VAA systems. As such, all indicators should be 'gender sensitive'. A gender sensitive indicator is defined as 'an indicator that captures gender related changes in society over time'²⁶. Disaggregation of data is a starting point as it is helpful in determining which groups are at risk or affected. Whenever possible each indicator should be systematically disaggregated by sex (girls, boys, women and men), age and type of households (women-headed, child-headed, widowed, divorced, single-male headed, households with disabled or elderly persons). Specific gender indicators should be both qualitative and quantitative, in order that statistical information, which does not explain why the change has occurred and its impact, can be complemented by a gender analysis²⁷ that seeks to answer these questions. In order to obtain a reliable gender perspective, NVACs should speak directly to women, men, boys and girls obtaining both qualitative and quantitative information.

The selected indicators will assist to answer three questions as follows:

- Who does what?
- Who owns what?
- Who has access to/controls what?

The criteria for selection of these indicators include the following:

- Clear, relevant, actionable, and providing up to date information to policy makers to enable gender-sensitive policy formulation;
- Ease of data collection and analysis, based on available, valid and good quality data
- Fall within the SLF (Assets and Strategies).

2.4.1 Access to and control of productive resources

2.4.1.1 Percentage of households with agricultural machinery and equipment by sex of head of household

Definition

This describes the ability of men and women to purchase and/or hire agriculture machinery and equipment that is used to reduce labour and time and increase production.

Rationale

Women tend to have lower access to agricultural productive resources than men owing to gender-specific constraints.

Notes on measurement

Questions are included in the socio-demographic component of the household questionnaire, triangulated using data collected from agriculture censuses.

2.4.1.2 Percentage of households using chemicals by type of chemical and sex of head of household

Definition

This describes the ability of men and women to purchase and/or use chemicals such as fertilizer, pesticides and herbicides to improve production.

²⁶ SADC, 2009: Gender Mainstreaming Resource Kit

²⁷ For guidance on gender analysis see <http://www.gdrc.org/gender/framework/g-framework.html>

Rationale

Levelling the playing field in terms of access to productive resources has been recognized as pivotal, for inclusive economic growth and for rural development. This is critical for smallholder productivity and incomes.

Notes on measurement

Questions are included in the socio-demographic component of the household questionnaire, triangulated using data collected from agriculture censuses.

2.4.2 Ownership and decision-making power over productive resources**2.4.2.1 Average landholding size by sex of head of household****Definition**

This describes the share of men and women with legally recognized evidence of land tenure.

Rationale

Land ownership and landholding size determines production and productivity of the household. It is also one of the assets that are used to categorize wealth of the household particularly in the rural areas.

Notes on measurement

Questions are included in the socio-demographic component of the household questionnaire, triangulated using data collected from agriculture censuses.

2.4.2.2 Average number of livestock species by type of species and sex of head of household**Definition**

This describes the percentage of men and women owning and controlling livestock across socio-economic groups.

Rationale

Livestock ownership is used for wealth ranking in most parts of southern Africa where livestock farming is predominant. However, the quantity and type of livestock plays a major role in household food and nutrition security.

Notes on measurement

Questions are included in the socio-demographic component of the household questionnaire, triangulated using data collected from agriculture censuses.

2.4.3 Role of men, women, boys and girls in agricultural production**2.4.3.1 Ratio of males and females economically active in productive activities by age****Definition**

This is the proportion of an economy's working age population (14-64 years – may vary depending on the country's definition of working age) that is employed. A person, of specified age, is considered employed if, during a specified period of one week, s/he was: in paid employment (employees) or self-employment (employers, own-account workers, members of producers' cooperatives, contributing family members).

Rationale

Majority of women are involved in productive activities as well as domestic tasks; however they are often in low positions and low paying jobs and most of the time the unpaid work is not accounted for.

Notes on measurement

Use the socio-demographic component of the household questionnaire, triangulated using data labour force surveys, which are the main source of data on labour force participation, employment and unemployment by industry.

2.4.3.2 Percentage of households participating in producer organizations by sex of head of household

Definition

The proportion of male or female headed households participating in producer organizations, to obtain all types of training and education, formal and non-formal, as well as to the benefit of all community and extension services in order to increase their technical proficiency.

Rationale

Producer organizations have proved to be effective platforms for knowledge sharing

and dissemination of new technologies, formal and community extension services as well as introduction and adoption of new technologies. This helps members to access agricultural productive resources as members support each other and various organizations promote such groupings for sustainability purposes.

Notes on measurement

Questions are included in the socio-demographic component of the household questionnaire, triangulated using data collected from agriculture censuses.

SECTION 3: APPROACHES AND METHODOLOGIES

3.1 Introduction

This chapter discusses the various ways in which Member States, depending on their methodologies for VAA, can adapt the various approaches and methods to ensure integration on nutrition, HIV and gender. Member States have adopted various approaches in their VAA. The main approaches/methods used include the Household Economy Approach (HEA), Secondary Data Use (SDU), and Household Sample Survey (HSS). The Integrated Food Security Phase Classification (IPC) is also discussed as one classification tool that can be used to disseminate VAA results for decision-making. Lessons learned from selected countries in the region indicate that a single or combination of approaches can be used to achieve integration.

3.2 Household Economy Approach (HEA)

The Household Economy Approach (HEA) is an analytical framework developed on the principle that information on events that beset a particular area or community – late rains, land reform, rising food prices – can only be properly interpreted if seen against the context of how people normally live. An understanding of people’s livelihoods is therefore essential for analyzing the impact of any significant positive or negative change on households. The framework provides the outlay of what information is

needed and how that information is analyzed; data can be collected using Rapid Appraisal techniques or Household Questionnaires. However, due to cost implications countries in the SADC region have primarily used rapid appraisal techniques/methods. HEA has been adopted by some countries²⁸ as a method of determining food security analysis for projecting estimates of populations at risk and needs to cover defined deficits within a consumption year.

In the HEA process there are two stages under which integration can be done: Baseline assessment and Outcome analysis. In the region HEA has generally been implemented using rapid appraisal techniques at community level, which creates challenges, in order to incorporate data requirements for nutrition, HIV and gender. The HEA can be complemented/ adapted through additional tools or approaches that collect data at household level such as the HSS and SDU. There are two options (see Table 3) available for NVACs using HEA as the main approach in view of the country’s financial specific context. It is key that in all the options there is joint planning between NVACs and specialized technical agencies, in order to ensure planning of data collection activities that synchronize location, season and timing.

Table 3: Options for Household Economy Approach

Options	Description	Where currently in practice
Option 1	HEA and complementary tool such as Household Sample Survey using quantitative methods (household questionnaire and anthropometric measurement)	<ul style="list-style-type: none"> • Malawi – HEA parallel to Emergency Food Security Assessment with Nutrition Assessment; • Botswana – Livelihoods and Nutrition Assessment; • Lesotho – HEA and Nutrition Assessment.
Option 2	HEA and Secondary Data Use	

²⁸ Botswana, Swaziland, Lesotho, Malawi, and Namibia uses the framework for their annual vulnerability assessment

3.2.1 Option 1: HEA and complementary tool for nutrition, HIV and gender

This option complements information on livelihood patterns and market information provided by HEA by generating data at the household level which is a prerequisite in gathering data that provides for the integration of nutrition, HIV and gender in VAA. The piloting experiences of Malawi, Botswana and Lesotho using this option are detailed in Annex 1. Option 1 can be implemented in two ways (hereinafter referred to as parts). The purpose of Part 1 or Part 2 is to collect household and individual level data that makes possible the integration of nutrition, HIV and gender.

Part 1: HEA with nutrition questions added to the community tools

This has the following implications on ensuring quality data:

- Inclusion of subject matter specialists (SMS) in nutrition, HIV and gender;
- Additional training for the multidisciplinary team; and
- Possible cost escalation in view of SMSs and additional training.

The HEA can be complemented through a household questionnaire in order to incorporate data requirements for nutrition, HIV and gender. There are five steps in implementing Part 1 of HEA as provided in the procedures manual (The Household Economy Approach, a guide for programme planners and policy-makers, FEG Consulting/Save the Children UK).

Part 2: HEA and parallel to Household Food and Nutrition Security Assessment

Part 2 is HEA in parallel with a food and nutrition security assessment conducted using a questionnaire administered at the household level. The implications are:

- There is a possibility of assessing different households;
- Assessment of different households might pose difficulties in analysis and interpretation.

The objective is to conduct food and nutrition security assessments at the same time with HEA using household level questionnaire depending on the target group and indicators. Advance joint planning led by NVACs is required with the active involvement of specialized technical agencies, and partners in order to ensure synchronization of localities/sites, seasonality, timing, frequency and quality of secondary data.

3.2.2 Option 2: HEA and Secondary Data Use

The HEA can be complemented by secondary data that was collected using approaches that collect data at household level such as HSS in order to incorporate data requirements for nutrition, HIV and gender.

There are five steps in implementing the integration using the two options in HEA and these are presented in table 4 below:

Table 4: Steps in implementing integration options in HEA

Step	Option 1 (Part 1)	Option 1 (Part 2)	Option 2
Step 1: Decide on the target groups and define indicators	<p>There are three levels at which inquiry takes place in targeting:</p> <ul style="list-style-type: none"> • District and community leader key informants to obtain high level qualitative information on integration variables. • Representatives of typical households within each wealth group in focus group discussions: necessary to gain information on access to food and cash income, the expandability of different sources of food and cash after a shock, knowledge questions on nutrition, HIV and gender as outlined in Step 3 on data collection. 	<ul style="list-style-type: none"> • Using wealth determinants select individual households for data collection during assessment. The desirable target group is women of child-bearing age, under-5 years of age children, children 6-18 years old, and adults so as to establish current nutrition status, HIV prevalence, chronically ill and/or HIV positive adults and children, and sex. At household level, children quickly respond to nutritional changes. Caregivers including men and women will provide better information on vulnerability. • NVACs should use the minimum indicators defined in Section II in addition to any other indicators guided by the agreed objectives. 	<ul style="list-style-type: none"> • Indicators from secondary data sources may include information that was collected at individual and household level and disaggregated by sex and age such as Global Acute Malnutrition, stunting, overweight, HIV prevalence, access to improved water sources, access to improved sanitation, wasting and orphan hood.
Step 2: Decide on size of sample	<p>Using multi-stage purposive and stratified random sampling:</p> <ul style="list-style-type: none"> • Stage 1: Purposive selection of an appropriate number of livelihood zones guided by crop forecasts and meteorological data, etc. • Stage 2: Randomly sample appropriate²⁹ number of enumeration areas (EA). On average an EA has 3 villages • Stage 3: In sampled EAs use stratified random sampling to select participants for the focus group discussions (FGDs) with wealth group, sex and age being the stratification variables. 	<p>When using Part 2, NVACs should sample as follows:</p> <ul style="list-style-type: none"> • HEA purposive sampling • Random sampling for nutrition, HIV and gender indicators³⁰. <p>Nutrition Sampling recommended approach for Option 1, Part 2 as all households are the target with a pre-defined target group of children under-5 years of age:</p> <ul style="list-style-type: none"> • Proposed sampling is two stage cluster sampling • Define the study area (livelihood zones, regions, provinces or districts) • Calculate the representative sample of children required • Pre-define the household with the target group such households with children under five 	<p>The sampling considerations that should be put in place are:</p> <ul style="list-style-type: none"> • Data is collected at the household and individual levels • When qualitative data is collected through focus groups and key informants or quantitative data through household questionnaires, if it is from the same source, in this case triangulation is statistically recommended than association. • To do associations data has to be from the same questionnaire.

²⁹ This is guided by the available budget and size of the each country

³⁰ Malawi experience in 2013 and 2014 was that determination of sampling unit was problematic - district versus livelihood zone.

Step	Option 1 (Part 1)	Option 1 (Part 2)	Option 2
Step 3: Select and train enumerators	<ul style="list-style-type: none"> Select enumerators with knowledge and skills on VAA using the HEA interview and key informant's guides and how to conduct, probe and record nutrition, HIV and gender related questions. Experience has shown that it is advantageous to have a multi-disciplinary team, including someone with knowledge and experience in nutrition, HIV and gender assessments. The assessment team should include at least one specialist in conducting FGDs³¹ particularly for discussions and recording of nutrition, HIV and gender topics in qualitative methods, as the roles require the ability to listen to responses and judge if they are adequate to ensure quality data 	<ul style="list-style-type: none"> A mixture of team members with complementary areas of expertise is desirable, including individuals with technical know-ledge and skills related to food security, nutrition, HIV and gender, and if possible, with some experience related to anthropometric measurements 	<ul style="list-style-type: none"> Select Subject Matter Specialists (SMS), including from nutrition, HIV and gender Prioritizing cadres at sub-national levels is strongly recommended Train teams in the selected approaches (i.e. HEA with SDU).
Step 4: Schedule data collection and supervise the assessment teams' work	<ul style="list-style-type: none"> Joint planning led by NVACs is required with the active involvement of specialized technical agencies, and partners in order to ensure synchronization of localities/sites, seasonality, timing, frequency and quality of secondary data. Field-test the integrated interview guide to address the country specific needs. 	In instances where NVACs want to conduct a nutrition survey in parallel with VAA the HEA is conducted at the same time with a household level approach that incorporates food security, nutrition, HIV and gender indicators. Parallel data collection activities over a period of 2 weeks that synchronize location, season and timing are desirable.	<ul style="list-style-type: none"> Select data that is recent, representative of the level of analysis and that was collected using standard analytical methods such as calculation of nutritional, HIV and gender indices and use of the HEA Analytical Framework for socio-economic data.
Step 5: Data analysis, interpretation and reporting of nutrition, HIV and gender	<ul style="list-style-type: none"> Use consensus estimates from FGD by livelihood zone, socio-economic group/wealth group, sex and age, to interpret knowledge, nutrition situation and HIV related impact. Use a combination of factors coming out of FGDs on food, nutrition, WASH, HIV, sex and age to classify 'wealth groups' or socio- 	<ul style="list-style-type: none"> In order to provide information on factors contributing to child malnutrition, correlations between risk factors and nutritional status should be made Analysis of data on anthropometric indicators, nutrition, and VAA should be done jointly, as well as interpretation, reporting and associations made 	Integrating nutrition, HIV and gender can be done using the HEA Analytical Framework at outcome analysis. The attendant challenges/risks in HEA include: <ul style="list-style-type: none"> The identification of livelihood zones is subjective; There is no continuity because it is not repeatable especially the FGDs.

³¹As a need experienced and voiced in four countries visited

Step	Option 1 (Part 1)	Option 1 (Part 2)	Option 2
	<p>economic groups as “poor”, “middle” and “better-off”.</p> <ul style="list-style-type: none"> • The data should be presented in graphs and tables showing results in relation to the targets specified in the HEA manual. • Data reporting: Data should be interpreted in terms of and in the context of: <ul style="list-style-type: none"> • Nutrition status; • HIV; • Gender. • Frequency of reporting: the assessment results should be included in the annual VAA reports. 	<ul style="list-style-type: none"> • Analysis should be made at district level to give a better indication of current nutritional status at that level as compared to national trends and used for continuous monitoring in the consumption season. • Carry out standard analyses such as calculation of nutritional, HIV and gender indices and the HEA Analytical Framework for socio-economic data. Calculation of Confidence Intervals of estimates is recommended 	

3.3 Household Sample Surveys

The Household Sample Survey (HSS) is one of the commonly used approaches to collect vulnerability data using the household as sampling unit. Though relatively expensive, household surveys allow for better integration of nutrition, HIV and gender information in the VAA as all the data for the indicators is collected and analyzed at the same time and this makes it easier to cross-link the nutrition, HIV and gender indicators for an individual household member with other vulnerability indicators from that particular household.

Households are commonly sampled using the Probability Proportional to Size³² (PPS) method, or other sampling methods, to ensure representative data for the surveyed area. To capture nutritional information, individual nutritional status of particularly children aged 6-59 months needs to be collected from households with children; however the vulnerability assessment requires representative information on both households with and without children. Therefore, stratified sampling approaches can be applied. Household questionnaires are used for qualitative and quantitative data collection.

Under the HSS approach, household level information (the what) can be combined with qualitative community level information (the

why) to enrich, contextualise and further triangulate information. Household standard surveys are not by definition accompanied with community level data collection and this needs to be ascertained and provided as an option. At the community level key informants and focus group discussions can be used to collect qualitative data using a FGD guide (Community Tool)³³.

When combining household surveys with other community level data collection methodologies, it is essential that joint planning is led by NVACs with the active involvement of relevant ministries, specialized technical agencies and partners, in order to ensure synchronization of localities/ sites, seasonality, timing, frequency and quality of data. With regards to type of data collected, quantitative or qualitative, the sampling design, and combination of data collection tools, these are context-related choices, and results in a number of different assessment design options. Options for choices under the different aspects under the Household Sample Survey approach, depending on the context, are presented in Table 5 below. Zambia and Zimbabwe use integrated surveys with PPS sampling of households in combination with qualitative methods at community level: their examples are detailed in Annex 1.

Table 5: Options for Household Sample Surveys

Aspects	Options	Example Description	Where currently in practice
Sampling design	Stratified for households with and without children – or, Not stratified	See step 2 – below	
Combination of data collection tools	Household questionnaire only – or, Combination with key person interviews – or, Combination with community tools (FGD)	Integrated survey sampling household collecting quantitative data on food security, nutrition, HIV and gender indicators using a household questionnaire in combination with qualitative methods using FGDs (Community Tool).	Zimbabwe, Zambia
Parallel HH & community assessments	Practicing both HEA and HSS	Systematic household sampling for quantitative data collection using household questionnaire and anthropometric measurement, conducted in parallel to community based HEA VAA.	Malawi

³²Probability proportional to size (PPS) is a sampling technique for use with surveys or mini-surveys in which the probability of selecting a sampling unit (e.g. village, zone, district, health center) is proportional to the size of its population

³³Example in Zambia and Zimbabwe

There are five steps in implementing HSS as follows:

Step 1: Decide on the target groups and define indicators

- In HSS, the target is the household and individual members of the household who include adult men and women, women of child-bearing age, and children aged 0-5 years old towards quantitative data collection providing better information for VAA;
- Children 6-59 months of age and women of child-bearing age are critical groups to assess nutrition related indicators;
- Men, women, boys and girls as well as women of child-bearing age are critical groups for collecting HIV and gender related indicators.

Targeting specific individual household members will have implications on the sample size and hence cost of the assessment

Step 2: Decide on sampling and size of sample

Sampling should be informed by the objectives of the integration. Some of the questions to consider in the design of the sample include:

- What sampling strategy and sample size is suitable for understanding and generating a gendered analysis of vulnerability?
- How should we sample to generate data to inform policy formulation for development programmes?
- How do we sample to understand the drivers of different livelihood outcomes?
- How do we sample to create a balance between nutrition indicators as well as the indicators for gender and HIV?
- What are different levels of data disaggregation required and what sampling strategy should meet the data disaggregation objectives?

Developing a clear sampling strategy will require an in-depth discussion by the

different experts in the NVAC, taking into account the requirements of the data analysis plan. One of the options that NVACs can consider in sample size calculation is using a sample size calculator like the ENA Calculator. It should be noted however that this is a tool developed for emergency nutrition assessment and might require expert modification to be able to accommodate the integration objectives and correlation analysis. For nutrition indicators the Emergency Nutrition Assessment (ENA) Calculator or Epi-Info Version 7 are recommended to determine the sample size for the targeted population for anthropometry. Further reference on the SMART methodology, which is the basis for the ENA calculator can be found on www.smartmethodology.org. Since the sample size for the nutrition indicators is often larger than for the other vulnerability indicators, the nutrition indicator should be used for determination of the sample size for the survey. Consideration should be given to the following criteria:

- Wasting (low-weight-for height), rather than the proxy indicator of MUAC, is the indicator recommended for use in sample size determination;
- Trend analysis on stunting will in general require larger sample size than wasting.

Sampling methods

Broadly two sampling methods can be used to ensure representative data on both general household population and children under five: stratified – targeting households with and without children separately; and non-stratified – targeting households with and without children in the same sample, which tends to increase the sample size to ensure that enough households with children are present in the sample, and therefore increases survey costs. To reduce dispersion of selected households and related travel and logistical costs, for both methods the proposed sampling is two-stage cluster sampling.

Method I: Stratified sampling – this is the recommended method for HSS Option 1 as it ensures sufficient eligible households with children under 5 years of age, being a pre-defined strata or target group:

- Define the study area (livelihood zones, regions, provinces or districts);
- Calculate the representative sample of children required, as well as representative sample of other households;
- Pre-Define the target household of the target e.g. households with children under five years of age and households with no children under five years of age:
 - Stage 1: In study area, select clusters (EA or villages);
 - Stage 2: Use the proportional to size allocation method to select households with under five years of age children and households with no under five years of age children in the selected clusters.
- Conduct interviews at households depending on type of household (with or without children).

Method II: All households in the defined study area are the target:

- Define the study area (livelihood zones, regions, provinces or districts);
- Calculate the representative sample of children required;
- Convert the number of children into number of households, (using demographic data on average number of children aged 6-59 months of age per household for the total population).
 - Stage 1: In study area, select clusters (EA or villages);
 - Stage 2: Select households in the selected clusters;
- Conduct interviews at household level depending on target groups present in the households.

Step 3: Select and train enumerators

- A mixture of team members with complementary areas of expertise is desirable, including individuals with

technical knowledge and skills related to food security, nutrition, HIV and gender, and if possible, with experience related to anthropometric measurements;

- Provide adequate training to supervisors, as well as enumerators, to ensure quality data collection, especially where personal data assistants (PDAs) or SMART phones will be used for data collection as it is important for the smooth operation of field work;

Step 4: Schedule data collection and supervise the assessment teams' work

- Recognizing that VAA are conducted through multi-sectoral and multi-disciplinary teams with different professional backgrounds, NVAC teams require training to conduct the integrated assessments and analyses;
- On data management, ensure assessment data are reviewed for completeness and consistency and subsequently captured onto computer or other device for timely analysis.

Step 5: Data analysis and reporting integrating nutrition, HIV and gender into VAA

- In order to provide interpretation and information on factors related to child malnutrition, correlations between predictor variables and nutritional status should be made as per the analysis framework;
- Data on anthropometric indicators, nutrition data, and food security vulnerability data should be jointly analyzed, interpreted and reported (using a food and nutrition security conceptual framework approach);
- Use statistical software to perform weighted analysis for calculations of defined minimum indicators;

- Standard analytical methods such as calculation of nutritional, HIV and gender indices should be completed and use of the HEA Analytical Framework for socio-economic data;
- Always provide Confidence Intervals for reporting of quantitative results;
- Analysis should be made at the lowest sub-national level feasible to be able to identify the worst affected areas that need to be prioritized and give a better indication of current nutritional status at that level as compared to national trends. This will also be used for continuous monitoring in the consumption season.

3.4 Secondary Data Use in VAA

The Secondary Data Use (SDU) approach applies to the use of data collected from pre-existing sources. The purpose is to complement and strengthen primary data. Examples include data collected by ministries, institutions, and specialized technical agencies including those working in the area of HIV, nutrition and gender. The sources of secondary data need to be credible, reliable and up-to-date (particularly in the case of time sensitive indicators such as acute malnutrition). Sources such as gender analysis and assessment reports, and health and nutrition and HIV surveillance and monitoring can provide the required secondary data for integrating nutrition, HIV and gender.

Data can be collected from a variety of sources such as: AIDS Indicator Surveys (AIS); Multiple Indicator Survey reports (in

some countries); Demographic and Health Survey reports; UNAIDS Global reports; WHO Epidemiological Fact Sheets; WHO Global Atlas and Health facility registers.

Issues to consider in Secondary Data Use

- Periodicity of data collection (ad hoc, periodic, continuous);
- Frequency of data collection (weekly, monthly, yearly);
- Level of aggregation (individual, household, national);
- Sample size and sampling strategy;
- Format in which the data are stored (computer, paper);
- Availability and cost of data;
- Quality of data is usually out of the control of the NVACs;
- Low attendance to health facilities for clinic-based surveillance may affect analysis results;
- The objectives of secondary data might not be the same as those for VAA;
- NVACs may not have control of methodology used by data source;
- Risk of poor quality data due to poorly trained data collectors; and
- Bureaucratic delays in the Health Information Management System (HMIS).

Table 6 below provides the most commonly used and reported sources of secondary data in the SADC region.

Table 6: Common Secondary Data Categories and Sources

Categories of data	Institutional Source	Periodicity
Epidemiological and food safety data	Ministry of Health (MoH) – Epidemiology Department	Monthly
Crop estimates and livestock assessments, market prices, rainfall patterns	Ministry of Agriculture FEWSNET Meteorological Services	Every 1 -3 months for purposes of early warning
Health: environment and sanitation data, nutrition surveillance data on weight, height/length and MUAC	Health services survey data, HIMS	Every 1 -3 months
	DHS, MICS, Nutrition Survey	Every 3 -5 years
Poverty assessment data	Sectors, World Bank	Every 3 -5 years
Economic data, inflation and GDP projections	Department of Economic Planning and Cooperation	Period (3-5 years)
Economic data, population figures and breakdowns	National Statistics Office/ Bureau of Statistics	Periodic (3 -5 years)
Gender analysis, stocktaking, assessment reports	Ministry of Gender, Women and Social Welfare	Periodic (3 -5 years)
Estimation of HIV prevalence	MoH – HIV and AIDS Departments, National AIDS Councils, AIS	Annually
Food balance sheets	Sectors, FAO and using data assembled various sources in country	Annually
Population and household census	National Statistics Office/ Bureau of Statistics	Every 10 years

N.B: Caution must be exercised in use of secondary data in relation to time difference between the data available and the period that vulnerability assessment is conducted, as well as response time needed.

3.5 Integrated Food Security Phase Classification

The Integrated Food Security Phase Classification (IPC) is a standardized scale and a tool for improving food security analysis and decision-making that integrates food security, nutrition and livelihood information into a statement about the nature and severity of a crisis and implications for strategic response. The IPC tools and procedures are compatible with whatever data collection systems, methodologies, and institutional arrangements that exists in-country, and allow comparison of findings over time and across countries³⁴. It is potentially an important framework for further

strengthening analysis and interpretation of information/data provided by other approaches/sources, but is still at different stages of adoption in virtually all SADC countries³⁵. IPC is an important food insecurity classification framework for strengthening interpretation of information and helps identify information gaps.

Step 1: Decide outcomes and objectives of IPC

- Follow the details in the IPC framework manual for Acute and Chronic Phases that can be accessed on the following link: www.ipcinfo.org.

³⁴IPC: Integrated Food Security Phase Classification: Evidence and Standards for Better Food Security Decisions. www.ipcinfo.org and contact: IPC@fao.org

³⁵Botswana, Madagascar, Malawi, Mozambique, Lesotho, Swaziland and Zimbabwe (source: IPC in Southern Africa, June 2014)

Step 2: Unit and area of analysis

When using secondary data in IPC, the following sampling considerations should be made:

- Data collected at the household and individual levels is strongly recommended;
- Whether it is from qualitative sources such as focus groups, key informants or quantitative sources such as household questionnaires, triangulations are statistically recommended rather than associations;
- To conduct associations, data has to be from the same questionnaire.

Step 3: Data Gathering

- Joint planning led by NVACs is required with the active involvement of specialized technical agencies, and partners in order to ensure synchronization of localities/sites, seasonality, timing, frequency and quality of secondary data;
- NVACs should conduct a desk review of information available in the country;
- Select data that can give quantitative trends on nutrition status;
- Data should be applicable to the type of analysis, the acute or chronic phase, and up-to-date so as to provide accurate and accessible analysis of the development stages of food insecurity crises.

Step 4: Data analysis and reporting on nutrition, HIV and gender

Consider the following:

- Classification of the severity of food insecurity using four outcomes (food consumption, livelihood change, nutritional status and mortality);

- Data should be reliable and up-to-date, particularly for time sensitive indicators such as malnutrition to facilitate meaningful trends analysis.

The attendant challenges/risks in the use of the IPC approach include the following:

- It is relatively new and technical experience in its use is still limited;
- The IPC Chronic Scale (IPC Chronic Food Insecurity Classification) has not yet been widely rolled out, but some countries in the region have expressed interest to implement the tool (Lesotho, Malawi, and Mozambique);
- The IPC Nutrition Scale is currently being piloted in other regions (Asia, East Africa, and Latin America);
- IPC relies on secondary data, which if it is of poor quality, limited scope and/or questionable accuracy, limits the accuracy of analysis.

SECTION 4: ANALYSIS GUIDELINES, DATA PREPARATION/CAPTURE, PROCESSING AND REPORTING

4.1 Data Analysis Plan

The integration should see analytical capacities of the NVAC being increased through a coordinated analysis with other sector experts. A data analysis plan should be drawn up in the planning phase of the integrated analysis. The analysis plan will draw up the “what”, “how” and “why” of the integrated analysis. The analysis plan should consider:

- Analysis of nutrition indicators by socio-economic/vulnerability groups;
- Analysis of socio-economic determinants of vulnerability, gender and HIV being key determinants or drivers of vulnerability;
- How best should the evidence from random sampling of households be linked to the socio-economic issues of vulnerability as informed by HEA;
- Analysis of nutrition indicators by livelihood zones;
- The various levels of data disaggregation.

4.2 Analysis Guidelines

Data analysis should be guided by the analytical frameworks on integrating nutrition, HIV and gender as articulated in Section 1.

The Integrated analysis should provide a clearer understanding of:

- A gendered analysis of vulnerability and implications for short and long term policy response strategies and mechanisms;
- A clear understanding of malnutrition in the context of gender, livelihoods and livelihood vulnerability to shocks, including health shocks/hazards such as HIV and AIDS;
- HIV and AIDS as a health shock/hazard and its impact on livelihood security as well as food and nutrition security;

- Multi-sectorial and policy responses to shocks/hazards impacting on food and nutrition security, taking into account gendered analysis of vulnerability and impacts of HIV and AIDS on livelihood security.

The analysis should inform interpretations of the effectiveness of current policy and interventions, identify mechanisms for their improvement and serve to highlight policy gaps or potentials or additional instruments or areas of intervention.

4.3 Data Preparation

Data processing entails the collection, storage of data and the relevant quality control checks and cleaning required before analysis. Data quality control systems should be put in place before the collection of data. Once the data has been uploaded to various databases, it requires cleaning before analysis can be conducted. Member States use different databases and statistical packages for vulnerability assessments. Some of the databases and packages used include Microsoft Excel, Statistical Package for the Social Sciences (SPSS), Livelihood Impact Analysis Spreadsheets (LIAS) or Single Zone Spreadsheets for HEA among others. Member States, depending on their context and expertise commonly format and adjust these packages to organise their data effectively. It is important that teams responsible for data processing have the relevant expertise to organise the data effectively. Relevant expertise can be sought from partners and other supporting agencies.

4.4 Data Analysis

The analysis should go beyond descriptive statistics to include causal analysis. The team of analysts should be multidisciplinary and include nutrition, HIV, gender and livelihood analysis experts. A data analysis plan, generated during design of the assessment, should inform the types of analysis to be conducted. There are a number of software tools that can be used for the actual analysis and these include SPSS, Stata, ArcView, and Open Source among others. It is important that the results from the analysis are validated by stakeholders, participants and facilitators and that overall findings and recommendations identified through the assessment are correct and accurate.

4.5 Reporting and Dissemination

The report should be short and informative. In terms of order, the report should begin by stating the problem statement and underlying hypothesis, assessment objectives, sampling and methodology used. This will help users to

understand what the assessment entailed. The report should have a description of the analysis, results and conclusions in adequate detail to meet the needs of the intended users. The recommendations should be presented next. Ensure that they fall within the scope of the assessment objectives and are supported by the data collected.

The following tips can improve the quality of report:

- Use charts, graphics and pictures to present findings;
- Make recommendations that are specific, practical, action-oriented and realistic and should focus less on what to do, and more on how to do it. Recommendations can be institutional (related to internal practices, policies and attitudes in the organization or project) or technical (related to programming). Try to develop short-term recommendations that can have immediate effects as well as long-term recommendations.

ANNEX 1: EXAMPLES OF INTEGRATION OF NUTRITION IN VAA

HEA Examples

1. Malawi Vulnerability Assessment Committee (MVAC)

Study Design

The MVAC in conjunction with the World Food Programme (WFP) and the United Nations Children's Fund (UNICEF) conducted an Emergency Food Security Assessment (EFSA) alongside the usual HEA to establish levels of food and nutrition security.

The HEA approach is designed to identify the most vulnerable populations who are most likely to have food deficits during coming consumption year with the data being collected at the community level, and locations of the most vulnerable being identified by various key informants. EFSA was used to collect household data, which are statistically representative at the district level on a wider range of food security indicators, as well as nutritional outcomes, which are not collected when using HEA methodology. Two teams, one for HEA and another for EFSA, were deployed in the districts separately. The EFSA team had two sub-teams: one for administering a questionnaire while the other was taking measurements of eligible children in the sampled households.

Sampling

A minimum of 200 households were sampled in each district using a 20 x 10 sampling strategy (10 households sampled in 20 clusters – enumeration areas). The 20 clusters in each district were sampled using a probability proportional to cluster size. The 2008 Census data obtained from the National Statistical Office (NSO) were used in sampling the enumeration areas. The NSO maps showing enumeration areas for

the sampled areas were used for identifying the villages. Where EAs had more than one village the cluster was randomly allocated to one of the villages within the EA. Selection of the required households from each cluster was done using the spin a bottle method to select initial household for interview in each of the 20 villages sampled in a district. Sampling intervals were used to select subsequent households in the pre-defined direction (the right hand side of the previous household). In case the minimum number of children of 10 per cluster was not reached after visiting the 10 targeted households, then further households were sampled. In the selected households, caretakers including mothers, fathers or grandparents were targeted as respondents. A household in this survey was defined as people living together and sharing from the same cooking pot.

Analysis

Analysis for the two components were done separately. HEA used the single zone spreadsheet for analysing food deficit while EFSA data was analysed using SPSS. Findings were then compiled into one Annual VAA Report.

2. Botswana Vulnerability Assessment Committee (BVAC)

Study Design

In November 2014, BVAC commissioned a study aimed at establishing the causal factors of the persistently high prevalence of malnutrition in particular chronic malnutrition in Mabutsane district in the context of the prevailing livelihoods and food and nutrition security situation of the district. The study was to use a multi-sectoral approach in addressing the objectives. The study used the UNICEF

Conceptual Framework of Malnutrition to guide in the identification of variables of interest, study design, instrumentation and subsequent data analysis.

Primary data for this study was gathered through individual HSS and focus group discussions with key informants providing a process through which data at household and associated analysis outcomes are linked to underlying livelihood system and strategies employed by different wealth groups, providing more disaggregated statistical analysis particularly for nutrition outcomes. Households were then selected using systematic random sampling procedure in the field and households with no children 0-5 years of age were skipped as the sample included only households with at least one child under-5 years of age. Within the sampled households, only one child (the youngest) was assessed regardless of the total number of children less than five years of age in the household.

For verification the household survey collected information on anthropometric measurements, livelihoods, caring and feeding practices, access to health, water and sanitation. The anthropometric measurements data allowed the computation of current nutrition outcomes (dependent variable for the study). Other variables such as feeding practices, access to health etc. were amongst the causal variables as guided by the malnutrition causal framework.

Livelihoods information collected at this stage was used to compute problem specifications that were used to run an outcome analysis for the current consumption year (2014/2015). The current picture for the outcome analysis was then appended to the historical livelihoods trend to allow easy comparisons by year to be made. The household tool also contained several wealth indicators, which were used to compute wealth groups and thereby linking the household survey data collected to HEA information in available

spreadsheets (which includes the baseline). Likewise, this provided an opportunity to link livelihoods and nutrition data and therefore correlating livelihoods variables and nutrition outcomes was made possible.

Analysis

Descriptive analysis: This level of analysis was meant to provide a wide description of the study findings and therefore descriptive statistics such as frequencies, tables, graphs, charts, cross tabs were used to describe the trends or patterns arising from analysis. The frequency procedure was used to show the number and proportion of the respondents falling in the different categories of the responses on the variables studied.

Bivariate analysis: Bivariate analysis was used to investigate any emerging relationships between variables as well as drawing valid statistical conclusions that can be generalized to the study population. To ascertain whether there existed an association between chronic malnutrition (as measured by stunting) and several factors identified as likely to influence stunting (according to the malnutrition causal framework), the study considered using the Pearson's Chi-Square (χ^2) test for independence.

Multivariate analysis: Logistic regression was used as basis for the model that was used to establish how various factors influenced the dependent variable (chronic malnutrition – stunting). The purpose of the multivariate logistic regression analysis was to model the relationship between stunting and its potential predictors and quantify the strength of the model's potential to predict the dependent.

3. Partial integration of Nutrition HIV and gender in Lesotho

Lesotho piloted integration of Nutrition, HIV and Gender during the May/June 2014 Vulnerability Assessment and Analysis exercise. An additional tool to assess food access, utilisation, feeding norms and

WASH as well as Infant and young child practices was added to the HEA data collection tool used in focus groups. Administration of this tool did not require technical expertise on nutrition

An additional questionnaire to assess food and nutrition security was administered at household level in one purposively selected district (Mohale's Hoek). The cross sectional study was conducted on the randomly sampled HEA villages. ENA version 2011 was used to calculate a sample size and data collection was done by nutritionists.

Objectives of Household Assessment were

- To assess the nutritional status of children aged 6-59 months;
- To determine the levels of morbidity among children 6-59 months;
- To establish any variation observed by livelihood Zone.

In the absence of an analytical framework for integration of nutrition, HIV and gender (to help quickly identify outliers, and conduct plausibility checks for anthropometric measurements), SPSS and Excel were used.

Challenges and lessons learnt

- There was not enough time for preparation; hence limited consultation was done between Nutrition and VAC stakeholders;
- The budget was not enough to conduct a significant pilot;
- There were no associations that could be made between the wealth groups and nutrition, HIV and gender.
- In focus group discussions, collection of nutrition data should be strong and therefore there is need for a nutrition trained person in the team;

- There is need for thorough training on the objectives of integrating nutrition, HIV and gender, in order to ensure quality in recording data;

HSS approach examples

1. Zambia Vulnerability Assessment Committee (ZVAC)

Survey Design

The Annual Assessment is conducted in four phases namely:

1. Problem tree analysis – the indicators are derived on the basis of the identified causal factors in the problem tree analysis;
2. Integrated Context Analysis – this is undertaken to determine the districts to assess. The key indicators used for the selection of hotspots district include rainfall performance and anticipated crop losses with food insecurity frequency, poverty incidences and field reports from the District Disaster Management Committees (DMMCs) used as trailing indicators;
3. Sampling; and
4. Field Work – the survey utilizes both quantitative and qualitative means of gathering data in determining the impacts of hazards.

Sampling

The Survey employs probability sampling procedures. A two-stage stratified cluster sample design is used. In the first stage, 15 Survey Enumeration Areas (SEAs) are selected using the Probability Proportional to Estimated Size (PPES) procedure. During the second stage, 10 households are randomly selected from each enumeration area. Data collection is conducted at three levels namely the district, community and household levels.

The broader themes covered in the Assessment include the following:

Household Questionnaire themes: covering household Demographics; Productive Asset Ownership; Agriculture Production (Crop and Livestock Production); Livelihoods and Expenditure Patterns; Household Coping Strategies; Food Sources and Consumption; Water, Sanitation and Hygiene; Health and Nutrition.

Community and District Questionnaires themes: covering description on the rainfall performance; review the impact of rainfall; Community Income Sources (Livelihoods); Agriculture Production (Crops and Livestock); Prices for staple foods; Access and Livelihoods; Health and Nutrition; Water, Sanitation and Hygiene; Safety Nets programmes and Development Projects.

2. Integration of nutrition, HIV and Gender in VAA – Zimbabwe Vulnerability Assessment Committee (ZIMVAC)

The household questionnaire under demographics has a question on chronic illness which is then used as a proxy indicator for HIV related illness though with some reservations made since there are

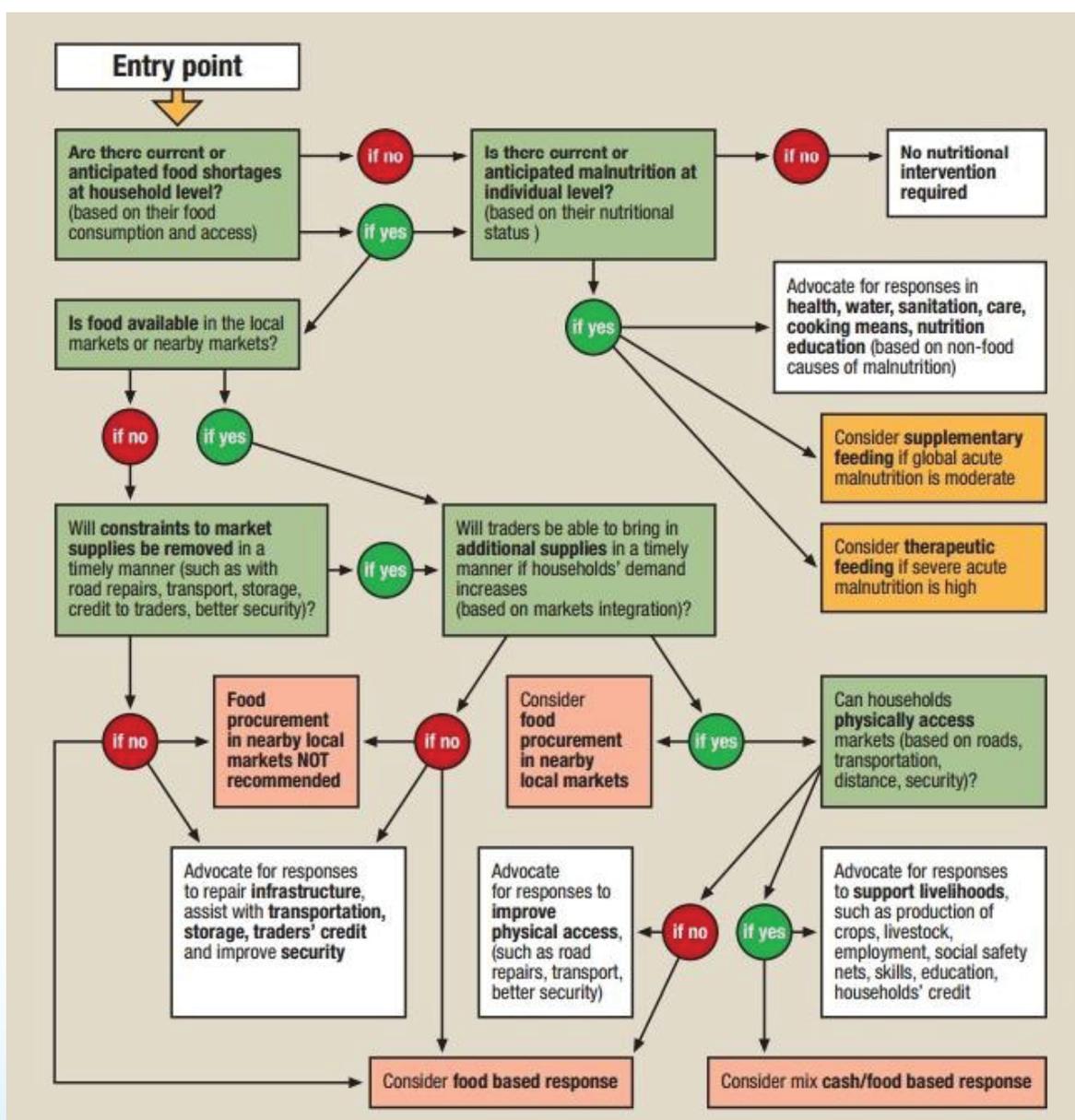
other illnesses which are chronic but not related to HIV. *“Is (name) chronically ill (currently ill and has been ill for three or more months to the extent of being unable to work/play)?”*

Nutrition section is added as a separate section on “Child Nutrition” where information on dietary diversity, meal frequency is collected using a generic set of questions asked for children 6-23 months old. Children 24-59 months old have only meal frequency data collected. The nutritional status for all children 6-59 months old is collected using bilateral oedema and MUAC.

On analysis, child food consumption patterns are described by minimum dietary diversity, minimum meal frequency and minimum acceptable diet. A further analysis on dietary diversity is done by looking at the proportion of children 6-23 months old by age group by food groups consumed.

ANNEX 2: EXAMPLE OF RESPONSE ANALYSIS FRAMEWORK

Response analysis frameworks support decisionmaking based on the findings of the assessment and analysis performed. An example is the EFSA response framework in the figure below.





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