

Establishment of the Botswana Vulnerability Assessment and Analysis System for  
National Food Security

Final Report

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## **List of Abbreviations**

BAMB	Botswana Agricultural Marketing Board
BOCONGO	Botswana Council of Non-Governmental Organizations
CSO	Central Statistics Office
CHBC	Community Home Based Care
DAT	Drought Assessment Tours
DDC	District Development Committee
EWTC	Early Warning Technical Committee
GIS	Geographic Information Systems
HIES	Household Income and Expenditure Survey
IMDC	Inter-Ministerial Drought Committee
MFDP	Ministry of Finance and Development Planning
MSCPR	Multi-Sectoral Committee on Poverty Reduction
NDVI	Normalized Difference Vegetation Index
NEWU	National Early Warning Unit
NFS-MG	National Food Strategy Monitoring Group
NGO	Non-Governmental Organization
NVAC	National Vulnerability Assessment Committee
PMU	Programme Management Unit
RDC	Rural Development Council
RHVP	Regional Hunger and Vulnerability Project
RISDP	Regional Indicative Strategic Development Plan
RVAC	Regional Vulnerability Assessment Committee
RVAA	Regional Vulnerability Assessment and Analysis
SADC	Southern Africa Development Community
SAFEX	South African Future Exchange Market
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VAA	Vulnerability Assessment and Analysis
VDC	Village Development Committee

## **Executive Summary**

Member States of SADC are continuously experiencing high levels of food insecurity and chronic vulnerability. Against such a backdrop, SADC has since 1999 established a Regional Vulnerability Assessment and Analysis (RVAA) programme to strengthen national and regional capacities in undertaking vulnerability analyses. The SADC RVAA system seeks to inform policy formulation, development and contingency planning activities, which should serve to reduce Member States' vulnerability to shocks (food insecurity, other disaster-induced incidences etc).

The institutional structure of the RVAA system includes a Regional Vulnerability Assessment Committee (SADC RVAC) and National Vulnerability Assessment Committees (NVACs) under national governments of Member States. The mandate of the NVACs is to maintain communication and coordination of stakeholders who are involved in vulnerability assessments and analyses in member countries. The SADC RVAC has a Programme Management Unit to provide technical, institutional and financial support to NVACs in SADC Member States.

As part of an expanded RVAA capacity within SADC, the Government of Botswana recently commissioned a study with technical and financial support from the SADC RVAC-PMU to review the mandate of the Botswana Early Warning Technical Committee (EWTC) with a view to including household-level vulnerability assessments and analyses. The study has also examined the possibility of expanding the Committee's mandate to a fully-fledged National Vulnerability Assessment Committee to reflect this addition

The objective of the study was to support the establishment of a multi-stakeholder and multi-sectoral National Vulnerability Assessment and Analysis system (NVAA) in Botswana that is capable of generating food security and vulnerability information. This information should theoretically feed into policy formulation and decision-making processes; and improve programming of drought interventions and other response options.

The study has looked at institutional possibilities for the new NVAC secretariat for Botswana. The study focus was to review existing food security management information structures, systems and activities and their relevance to a VAA system. The study consultant has examined other related information surveys undertaken by different stakeholders in government and non-governmental organisations; and reviewed existing or potential linkages for synergy among institutions dealing with drought emergencies and food insecurity. In the course of the consultancy, the consultant interviewed and shared experiences with the Botswana stakeholders on the activities of other NVACs in SADC and also on regional initiatives on food security and vulnerability. The consultant also reviewed on-going Botswana drought programmes, and critiqued baseline indicators generally used for impact analyses. The report which follows is the result of this work.

This report is structured such that Section 1 provides a description of the evolution of the VAA system within a wider SADC context through a regional project, the Regional Hunger and Vulnerability Project (RHVP), which is currently being implemented to create institutional capacities in member countries; Section 2 presents a general overview of vulnerability in

Botswana; Section 3 motivates the development of a VAA system for Botswana through a scoping study with specific objectives; Section 4 details current institutional frameworks, and the weaknesses of vulnerability assessments carried out in Botswana; Section 5 discusses the key concepts in a VAA, information systems and policies relevant to a VAA in Botswana and the regional experiences of VAA systems; Section 6 critiques on-going Botswana drought relief programmes, the targeting and sequencing of the same; Section 7 summarizes the main findings and conclusions of the study and finally, the recommendations are covered in Section 8 of the report.

Establishing a VAA system in Botswana requires some understanding of vulnerability and food security concepts, including their applications. There is however limited understanding of the vulnerability concept in Botswana. Although vulnerability has been associated with many risk factors in different sectors of the Botswana economy; these risks have rarely been analysed for their impacts at the household level, using the DAT field data. Vulnerability is about a full range of factors (drought, floods, diseases, bush fires, etc) that place people at risk of a certain shock, for example, food insecurity. The degree of vulnerability of individuals, households or groups of people is determined by exposure to risk factors and ability to cope or withstand stress situations.

A number of policies and strategies emphasize the need for improving the welfare of rural households in Botswana through improved food security (availability, access and nutritional status); stabilizing prices; employment creation; managing HIV and AIDS; efficient use of land and natural resources, and through reducing poverty. A well designed VAA system can assist in monitoring these variables at the household level over time.

Equally, a number of drought relief programmes are periodically recommended by DATs for implementation during drought years in Botswana. These programmes are targeted at varying numbers of beneficiary vulnerable groups, depending on the severity of the drought. The programmes are invariably, always intended to reduce food insecurity of households, community groups and individuals and, also to contribute to poverty reduction. However, programmes designed to address short-term food insecurity are often continued even in good years. Targeting in most programmes has not always distinguished between beneficiaries of long-term assistance and those on short-term assistance, both of whom are affected differently by the drought. Poor programme monitoring and design have, as result, created a dependence of rural people on transfers, even in good years.

Against this background, the study has therefore found that,

- At the national level, the linkages among national committees dealing with cross-cutting issues, other than food insecurity and droughts, across sector ministries have generally been very weak. At district level however, most sectoral meetings, including those that discuss cross-cutting issues are chaired by the District Commissioner. Often, meetings are too frequent and become numerous because of the proliferation of issues for discussion. Consequently, this scenario then creates unnecessary workload at that level.

- At national and district levels, membership to most committees is dominated by Government departments, except the MSCPR. The other key stakeholders who are non-governmental are often not included in discussions of most issues of national interest. Therefore, coverage of issues and information sharing is not adequate.
- The focus of the current early warning systems and assessments as an example is primarily on drought. As a result the system does not integrate other cross-cutting indicators such as prevalence of HIV and AIDS and issues related to poverty and vulnerability. The system also monitors strategic food sources, incomes of rural population, markets, and food commodity prices. But these indicators are not comprehensively captured in the guidelines for data collection and in the annual assessment reports, which are released in February of each year.
- There is inadequate information on nutrition indicators for the under-fives such as weight-for-height (wasting) and height-for-age (stunting). However, Ministry of Health is in the process of including these indicators in their new child welfare assessment tool.
- There is also lack of information on seasonal variations in dietary intakes for the under-fives (and for the general population). The reason is that there is inadequate capacity to conduct nutrition surveys.
- The assessments are done at the district level of aggregation and do not go down to the household level. The findings of the assessments are normally assumed at household level.
- The NEWU does not routinely incorporate price trends information, which is monitored by the regional SAFEX cereal market in Johannesburg, RSA to make informed recommendations on price levels.
- Drought assessment findings do not have baselines or benchmarks for comparisons. The EWTC compares the findings to previous years' findings without establishing the reference period, which is representative of a normal situation in Botswana. The danger of not establishing baselines is that consecutive bad years can be compared together and, less than objective recommendations made on the basis of the relative picture in those years.

The recommendations arising from the study are that,

- Government must establish a Botswana VAA system with streamlined institutions for monitoring food and nutrition insecurity; vulnerability analysis, including drought surveillance and poverty reduction monitoring
- Government must establish a secretariat for the new NVAC in the Poverty and Food Security Policy Coordination Section of the Ministry of Finance and Development Planning, primarily because of the coordinating role it is playing to a number of committees including the EWTC, IMDC and the NFS-MG.

- Government must review at the earliest opportunity the membership of the EWTC with a view to expanding it to be more inclusive, multi-sectoral and multi-disciplinary in nature to reflect its enhanced national status as an NVAC
- Government must review drought assessment methodologies with a view to emphasizing use of other sources of information and livelihood-based approaches in data gathering
- Current early warning monitoring and timing of the VAA System should generally be maintained, with the only improvements being the strengthening of monitoring activities at household and community levels.
- Government must strengthen the monitoring and evaluation of drought intervention programmes on a routine basis.

## **1.0 Introduction**

1.1 Member countries of SADC periodically experience high levels of food insecurity and chronic vulnerability. Vulnerability of households in one or more countries may be so widespread as to include risks associated with droughts, floods, diseases and veld fires, which predispose to food and nutrition insecurities in the particular country or countries. High incidences of chronic food and nutrition insecurity are often aggravated by low agricultural labour productivity due to high HIV/AIDS prevalence, unpredictable and unreliable rainfall due to climate change, and increased food prices, high unemployment and poverty, thus limiting households' access to food. These aggravating factors typically limit households' responses to shocks of food and nutrition insecurity and consequently, contribute to high levels of vulnerability in the region. In order to address these problems, it is important that stakeholders (policy-makers, civil society and other decision-makers) do appreciate and understand the food security situations and livelihood patterns of rural and urban households in their respective countries.

1.2 Against such a backdrop, SADC has since 1999 established a Regional Vulnerability Assessment and Analysis (RVAA) system to strengthen national and regional capacities in undertaking vulnerability analyses. The RVAA system therefore seeks to inform policy formulation, development programming and emergency and/or contingency planning interventions, which will progressively reduce vulnerability in member countries as well as in the region. The institutional structure of the RVAA system includes the Regional Vulnerability Assessment Committee (SADC RVAC), a multi-agency committee established under the SADC Secretariat's Food, Agriculture and Natural Resources Directorate (FANR), and the National Vulnerability Assessment Committees (NVACs) under national governments of Member States. The mandate of the NVACs is to maintain communication and coordination of different stakeholders involved in vulnerability assessments and analyses in member countries. The SADC RVAC has a Programme Management Unit to provide technical, institutional and financial support to NVACs in SADC Member States.

1.3 In response to the Southern Africa food crisis of 2001/02, the SADC RVAC ably facilitated and coordinated a series of vulnerability and livelihood-based assessments for Lesotho, Malawi, Mozambique, Swaziland, Zambia, Namibia, Zimbabwe and Angola. The findings from these assessments provided governments then with timely and reliable information on national food security situations and related conditions, and thus assisted these governments to determine appropriate short-term emergency interventions. In recent years, the information from the assessments is routinely being integrated into such long-term development issues as poverty reduction strategies, agricultural and food security policies as well as into health and nutrition programmes and policies of member governments.

1.4 As part of an expanded RVAA capacity within SADC, the Government of Botswana recently commissioned a study with technical support from the SADC RVAC-PMU and financial support from the Regional Hunger and Vulnerability Project (RHVP) to review the mandate of the Botswana Early Warning Technical Committee (EWTC) with a view to including household-level vulnerability assessments and analyses. The study has also examined the possibility of expanding the Committee's mandate to a fully-fledged National Vulnerability Assessment Committee to reflect this addition.

## 2.0 Overview of Vulnerability in Botswana

2.1 Botswana is a large country of about 582,000 km<sup>2</sup> and a small population of 1.8 million<sup>1</sup> in 2008, over half of whom live in rural areas and derive their livelihoods largely through subsistence agriculture and other informal sector activities. Although classified as an upper middle income country with a per capita nominal GDP of about US\$16,400 in 2007, Botswana still has its own fair share of social development challenges, including persistent income disparities among sizeable segments of its population. For example, Botswana is technically vulnerable to structural poverty and chronic food insecurity in any given year (National Strategy for Poverty Reduction, April 2003, pp 4-5).

2.2 Botswana's climate is semi-arid to arid with mean annual rainfall ranging from less than 250mm in the extreme southwest to 650mm in the extreme northeast. The rainfall distribution supports an extensive system of livestock farming and wildlife in the tropical woodlands of the north and the savanna grasslands of the western sandveldt areas. Dry-land arable agriculture is practiced gainfully along the eastern corridor of the country, where the majority of the population lives.

2.3 Agriculture contributes about 1.8 percent of the GDP and the main agricultural product mixes include livestock, sorghum, white maize, millet, cowpeas, and beans. Botswana is a net importer of most cereals and pulses and increasingly relies on imports of food, commercial goods and other merchandise. The agricultural sector only contributes about 20 percent of the staple food requirements<sup>2</sup>, which are met through both commercial production in Pandamatenga in the north and through subsistence production in the remainder of the country. Industry, **in particular the mining sector, contributes about 39 percent of GDP followed by construction (4.3 percent), personal services (3.6 percent), and manufacturing (3.6 percent)**<sup>3</sup>. The net trade balance has always been favorable because of mineral exports.

2.4 Apart from erratic rainfall patterns that affect agricultural production, periodic or regular droughts are a major contributing factor to high levels of poverty and vulnerability. These recurring droughts have often led to the failure of agriculture and also to increased food insecurity among farming households. Available data for the last 10 years (1998 – 2008), indicates that 6 years out of 10 were declared drought periods, with the remaining 4 years having experienced localized droughts.

2.5 The poor performance in agriculture has contributed to rural-urban migration thereby increasing the incidence of poverty in urban centres. In 2003, the incidence of poverty<sup>4</sup> at national

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<sup>1</sup> The 2008 population estimate figure 1,755,246 and is based on Central Statistics Office's population projections.

<sup>2</sup> The estimated national requirement for major cereals (sorghum, millet, and maize) is at 200,133mt.

<sup>3</sup> National Accounts Statistics for Botswana, Quarterly GDP:1997/98 – 2007/08.

<sup>4</sup> Central Statistics Office's "Poverty Datum Line for Botswana, 2003".

level was estimated at 30.6 percent with the rural areas being more vulnerable at 44.8 percent as compared to urban areas at 19.4 percent. The incidence of poverty was estimated at 47 percent in 1994 with the rural areas being the most affected.

2.6 As previously mentioned in the text, other factors that have largely contributed to current levels of poverty and vulnerability include double digit HIV and AIDS prevalence rates at 17.6% level<sup>5</sup> and periodic bush fires in the country; malnutrition; unemployment rate of 17.5% (cf. 2005/06 Labour Force Survey, CSO) and low income levels among Botswana in the rural areas.

2.7 Despite persistent occurrences of droughts, Botswana has always survived these incidences with less or no drought-related human mortalities actually being experienced. Government has often had to implement massive drought relief and recovery programmes in order to mitigate the adverse effects of droughts on households. Some of these activities have included income and welfare transfer programmes like the Labour-Intensive Public Works Programme; Vulnerable Group Feeding; School Feeding Programme; Provision of a Second meal for the Remote Area Dweller Children who attend school; Assistance to Arable and Livestock Farmers through subsidies and finally, through Support to the Destitute Persons, Orphans and Community Home-Based Care (CHBC) patients.

2.8 Over the years there has been some considerable increases in the numbers and size of social safety nets programmes implemented to provide relief during emergencies and consequently, rural people have tended to be highly dependent on these government transfers. Government is hence looking at ways of implementing more cost-effective alternative strategies in order to enable households to cope during emergencies and disasters, both in the short-term and long-term.

### **3.0 Motivation, Scope and Study Approach**

3.1 As referred to in paragraph §1.4 above, the overall goal of the consultancy study was to find ways of merging the existing drought preparedness capability of the Botswana EWTC with enhanced capability of household-level vulnerability assessments and analyses, where the latter have been shown to contribute to eradicating poverty in accordance with the priority of the SADC's Regional Indicative Strategic Development Plan (RISDP, 2003). The motivation for the study therefore was to help strengthen capacities of institutions dealing with emergencies in Botswana in ways that enable them to identify and characterise exposures to risks; resilience to changes and coping strategies of households.

3.2 The study has looked at institutional possibilities for the new NVAC secretariat for Botswana. The study focus was to review existing food security management information structures, systems and activities and their relevance to a VAA system. The study consultant has examined other related information surveys undertaken by different stakeholders in government and non-

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<sup>5</sup> According to BAIS 3, Statistics Brief for 2008, the latest HIV and AIDS prevalence rate is at 17.6% level. Previous surveillance data collected in 2006 by Ministry of Health among pregnant women put an estimate of HIV and AIDS at 32.4 percent, down from previous estimates of 33.4 and 37.4 percentage points in 2005 and 2003, respectively.

governmental organisations; and reviewed existing or potential linkages for synergy among institutions dealing with drought emergencies and food insecurity. In the course of the consultancy, the consultant interviewed and shared experiences with key stakeholders on the activities of other NVACs and also on regional initiatives on food security and vulnerability. The consultant also reviewed on-going programme interventions, and critiqued baseline indicators for impact analyses.

### **Study Objective**

3.3 The objective of this study was to support the establishment of a multi-stakeholder and multi-sectoral Vulnerability Assessment and Analysis system (NVAA) in Botswana responsible for generating food security and vulnerability information. Such an information system should eventually feed into policy formulation, decision - making processes, improved programming of drought interventions and other response options.

3.4 The specific objectives included,

1. the review of existing institutional structures of the Government of Botswana;
2. the review of existing information systems that could contribute to inform the character and extent of vulnerability in Botswana;
3. undertaking focused assessment of existing drought and food security monitoring information system to address, in particular:
  - (i) the key relations assessed in drought and food/nutrition security chains;
  - (ii) the completeness, relevance, objectivity and timeliness of early warning indicators; and
  - (iii) factors influencing determination of drought declaration.
4. the review of the environment for the institutional placement of the Botswana NVAC and to
5. generate generic terms of reference for the Botswana NVAC.

3.5 The Report is structured such that section 1 provides a description of the evolution of the VAA system within a wider SADC context through a regional project, which is currently being implemented to create institutional capacities of Member Governments; section 2 presents a general overview of vulnerability in Botswana; section 3 motivates a development of VAA system for Botswana, starting with a scoping study and its objectives; section 4 details current institutional frameworks, and the weaknesses of vulnerability assessments carried out in Botswana; section 5 briefly discusses the key concepts in VAA, information systems and policies relevant to a VAA in Botswana and the regional experiences on VAA systems; section 6 discusses drought intervention programmes that are being implemented, targeting and sequencing of interventions; section 7 summarizes main conclusions and findings and finally, recommendations are covered in section 8 of the report.

## 4.0 Institutional framework

### 4.1 Existing structures<sup>6</sup> relevant to Vulnerability Assessment and Analysis (VAA)

At the national level there is the Rural Development Council (RDC), a high level coordinating structure mandated to promote and coordinate rural development across various sectors within government and between government and non-governmental organizations (NGOs). The RDC is chaired by the Minister of Finance and Development Planning (MFDP) and deputized by the Assistant Minister of Local Government. Its membership comprises the two ministers of government referred to above, all the sector-specific permanent secretaries responsible for rural development and representatives of eight special interest groups<sup>7</sup>. The RDC reports directly to Cabinet and the President.

4.2 Under the RDC there is the Inter-Ministerial Drought Committee (IMDC) which comprises members from various departments and ministries with food and economic programmes being implemented in rural areas. The members of the committee are from Government departments and divisions and these include: Crop Production; Animal Production; National Early Warning Unit (NEWU) under the Department of Agricultural Business Promotions; Meteorological Services; Forestry and Range Resources; Wildlife and National Parks; Local Government Development Planning; Department of Local Government, Finance and Procurement (Food Relief Services); Social Services; Water Affairs; Family Health Division (Food and Nutrition Unit) under the Ministry of Health and the Central Transport Organization.

4.3 Under the IMDC there is the Early Warning Technical Committee (EWTC) which provides technical advice; collects and analyses early warning information and makes recommendations to the RDC through the IMDC on drought assessment findings. The specific mandates of the EWTC include:

- (i). undertaking regular assessments of the income and food security situation of the population;
- (ii). assessing agro-meteorological and rainfall situation;
- (iii). assessing agricultural situation with particular emphasis on livestock and wildlife grazing and water conditions and cropping;
- (iv). assessing nutritional, supplementary feeding programmes and trends in human nutritional status;
- (v). monitoring strategic food sources, food commodity pricing, food-aid commitments and the adequacy of financing facilities for food purchases under emergency drought feeding programmes;

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<sup>6</sup> Poverty and Food Security Monitoring Bulletin 2, June 2007, page 7 and Rural Development Coordination Division, Strategic Plan 2003-2009, pages 3 to 7.

<sup>7</sup> The interest groups include: Tribal Authorities, Land Boards, Town and District Councils, Council of NGOs, BOCCIM and the Federation of Trade Unions.

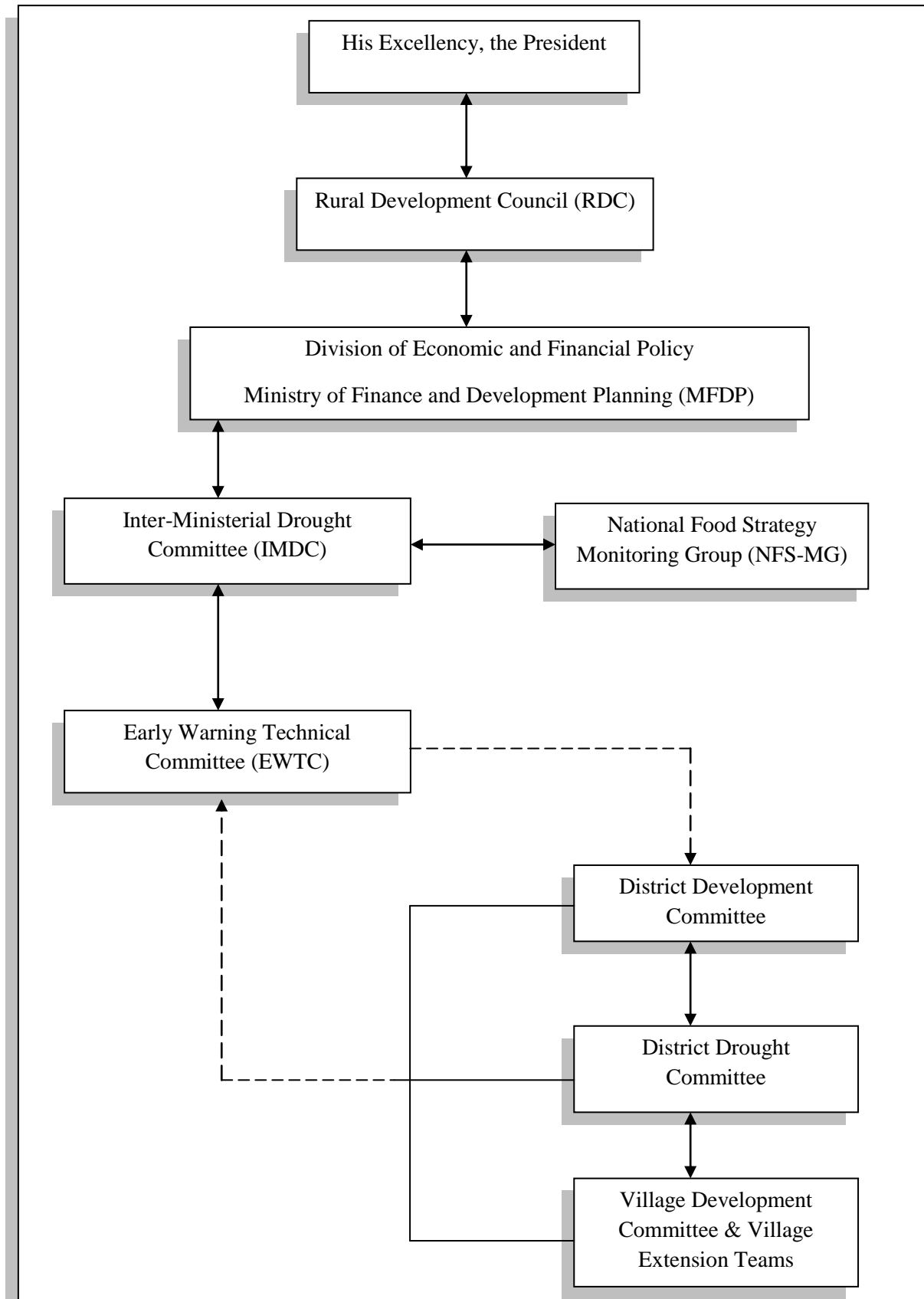
- (vi). producing reports and making policy recommendations for consideration by the IMDC and,
- (vii). Arranging annual inter-ministerial Drought Assessment Tours (DATs) to establish the drought and food security situation.

4.4 The IMDC focuses on short-term food security issues. Parallel to the IMDC there is the National Food Strategy Monitoring Group (NFS-MG), which focuses on long-term food policy issues. However, there is also the Multi-Sectoral Committee on Poverty Reduction (MSCPR), which focuses on poverty issues and also addresses issues of interest to both the IMDC and the NFS-MG. The latter committees deal primarily with food security issues and to some varying degree with food poverty. The secretariat to all the four committees (MSCPR, IMDC, EWTC, and NFS-MG) is located in the Poverty and Food Security Policy Coordination Section; while the secretariat to the RDC is in the Rural Development Policy Coordination Section in the Ministry of Finance and Development Planning (MFDP).

4.5 The EWTC conducts annual assessments once a year during the months of January and February and then reports assessment findings to key stakeholders towards the end of February of each year. The EWTC links up and collects sectoral information from the district-level committee, which is the District Development Committee through its District Drought Sub-committee. The District Drought Sub-committees are assisted by the Village Development Committees, which are level - 3 village institutions just before individual households at the bottom rung of decision-making. Both the District Development Committee and the District Drought Sub-committee are chaired by a District Commissioner, a central government appointee, who is in turn assisted by a Council Secretary from a local government authority (district council).

4.6 However, apart from the EWTC there are other information systems and/or committees relevant to VAA that also use the District Development Committee. Some of these national level committees include: National Disaster Management Committee under the Office of the President, and the HIV and AIDS Committee under the Ministry of Health. The major challenge is that these committees use the same structures at district level; but at national level the issues are separated. There is therefore a need to create strong liasoning among the committees in order to achieve synergy of mandates at the national level. Figure 1 below is an information flowchart, showing how some selected national committees are currently linked and coordinated for drought and food insecurity surveillance purposes.

Figure 1: Linkages and coordination on drought information flow<sup>8</sup>



<sup>8</sup> The diagram is from *Poverty and Food Security Monitoring Bulletin 2, June 2007*, page 9.

### **Early Warning Information Systems**

4.7 The early warning system is well organized and coordinated through all government departments and divisions, which are members to the EWTC. Central to the system is the NEWU under the Ministry of Agriculture. The NEWU periodically collects and compiles information on food security, animal and range conditions as well as climate data from the different departments within the Ministries of Agriculture and Environment, Wildlife and Tourism; nutritional data from nutritional surveillance system under the Ministry of Health; food and feeds stocks from the Botswana Agricultural Marketing Board (BAMB) and other relevant stakeholders.

4.8 All the members present and submit monthly reports to the EWTC on indicators being monitored in their respective sectors or sub-sectors. The members of the EWTC that report on monthly basis include the following Government departments: **Central Statistics Office**; Crop Production; Animal Production; Veterinary Services; NEWU under the Department of Agricultural Business Promotions; Meteorological Services; Forestry and Range Resources; Wildlife and National Parks; Local Government Development Planning; Social Services, Local Government, Finance and Procurement (Food Relief Services); Water Affairs and the Water Unit in the Local Government Technical Services of the Ministry of Local Government; and the Family Health Division (Food and Nutrition Unit) under the Ministry of Health.

4.9 The sector-specific reports are reviewed by members of the EWTC and, where necessary, reports are triangulated to check on how risk factors in one sector are impacting on other sectors. Using this information from different sectors, the EWTC conducts DAT to assess the food security situation in late January to early February of each year.

4.10 Membership of the EWTC is restricted to government departments only; while non-governmental organizations are not included in the deliberations at that level. This omission limits an in-depth coverage of issues to be reported to the RDC for decision-making. This is a challenge to the early warning system as it exists as it would seem to omit inputs from certain stakeholders at crucial stages to vulnerability mapping.

### **Drought Assessment Tours**

4.11 Operationally, the national EWTC is mandated to assess the drought and food security situations to enable decisions to be made for declaring droughts as well as recommend types of interventions to be implemented in order to mitigate their impacts on households. The EWTC undertakes the Drought Assessment Tours (DAT) to complement early-warning reports that are routinely compiled by various government departments and ministries. During the DAT, the EWTC also verifies and reconciles existing information at the national level with district-level information.

### **Timing of Assessments**

4.12 The DAT is conducted at the end of the month of January to early February, during which time most farmers are expected to have ploughed and planted their arable fields. The rainfall period is from October through to March or April, depending on geographical location of the area. Under normal circumstances farmers are expected to plant crops during the months of November to January, when the country receives effective rains.

4.13 Among the many tasks of the DAT teams, the DATs are typically supposed to assess planting opportunities of crop farmers in different geographic areas, in addition to other variables of interest in the assessments. If the rains delay, farmers do not plant on time and consequently, become vulnerable to food insecurity in the consumption period following such loss of opportunity. The delays in the rains also affect rangeland conditions as well as the availability of pasture and water for both domestic animals and wildlife.

4.14 The assessments are undertaken at the middle of the rainy season, when most vulnerability indicators are inconclusive. With recurrent climate changes, delays in the on-set of effective rains for cropping purposes will invariably, always occasion farmers delaying their ploughing and planting decisions. It may therefore be useful for DAT managers in future to consider shifting the assessment periods more towards the end of the season, which is the period March to April, in order to be able to capture most impacts.

### **Assessment methodology and processes**

4.15 Before the assessment tour begins each year, guidelines and standardized tables are sent to district officials to fill in. During the assessment period there are two teams comprising members of the EWTC who cover the whole country. The assessment teams conduct meetings with the District Drought Committees to verify the food security situation on the ground.

4.16 The indicators and intervention programmes, which are often assessed include: rainfall performance; crop production estimates (area ploughed/planted and estimated crop yields); rangeland condition; veldt fire situation and maintenance of fire-breaks; livestock condition; wildlife condition; human water supply situation; nutritional status of the under-five children; prevalence of destitution and Community Home - Based Care Programme; and information on feeding programmes and cash interventions like Labour- Intensive Public Works Programme.

4.17 Current listings of indicators that are included in the DAT guidelines are usually not exhaustive; because they do not include indicators, which are critical to assessing household-level situations. Such indicators include rural incomes, market responses, food prices, food availability and dietary intakes. At programme intervention level, the assessment methodology is not amenable to identifying the gap that is required to be implemented as a result of the drought impact by identifying what is already being implemented (cf. paragraph § 5.2 for definition). The only issues covered are the challenges that are met when implementing the activities of the programmes.

### **Drought Assessment Procedures**

4.18 The procedures include the following:

- (i). The DAT teams look at the rainfall performance during the season. The focus is on timing and spatial distribution of the rainfall and the cumulative amounts compared to long-term average;
- (ii). The teams then establish the impact of the rainfall amounts and distribution on area ploughed/planted, plant growth performance both on food crops and plant growth in rangeland, water availability sources, rural incomes, human livelihoods, livestock and wildlife. During this stage the teams review the rainfall pattern, timing of ploughing, planting activities, the area ploughed, yield and harvest forecasted and the situation is compared to previous years' situations. and rainfall patterns;
- (iii). The teams assess the current levels of human vulnerability and signs of stress and possible effects of their interaction with the observed impacts of rainfall patterns. The main focus during this stage is on nutritional status of under-five children based on nutritional surveillance data from clinics and other health facilities and emerging trends in the number and distribution of destitute persons;
- (iv). The teams review the implementation of the on-going feeding and drought relief programmes and,
- (v). Lastly, the assessment teams determine the need or otherwise of introducing or continuing Government supports to food insecurity, including determining form, nature and scope of the interventions.

4.19 Although these procedures are well intended, they are nevertheless not far-reaching and, therefore, detract from the objectivity required in the exercise of this nature and magnitude. Perfunctorily, DAT teams conduct meetings with the district-level counterpart teams, only to confirm and verify the situation on the ground. In the assessment, expectations are that teams must be able to administer some tools/questionnaires/checklists, which can then be used in collecting the information and in probing in the sampled areas. The current drought assessment procedures should therefore be reviewed in order to objectively assess food security situations.

### **Some Factors that are considered in declaring droughts**

4.20 For purposes of assessing drought and food security situations, some rules of thumb or criteria are used to make some determinations about drought conditions. These criteria are therefore a basis for declaring droughts in Botswana and these include the following factors:

- (i). the forecasted rainfall performance which include amounts and distribution both in space and over time in relation to normal trends<sup>9</sup>;

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<sup>9</sup> The normal rainfall trend is estimated on the basis of a 30-year long-term average period.

- (ii). crop performance with particular attention to area ploughed and planted and forecasted crop production estimates;
- (iii). rangeland conditions, availability of pasture and water for both livestock and wildlife and also the physical conditions of the animals at the time of the assessment;
- (iv). the nutritional situation of under-five children based on nutritional surveillance data and;
- (v). the increases in the number of destitute persons and anticipated outcome.

4.21 Evidently, the DATs do not routinely include household-level indicators to assess food insecurity and vulnerability, to which households may be exposed in a drought. These indicators may include considerations such as sources of food, sources of income and other coping strategies like variations in dietary intakes; including price considerations of food in local markets to assess the purchasing capacities of rural households. Since the DAT teams rarely collect information on these variables, they have tended to assume household impacts on the basis of district/village-level aggregated information.

#### **Uses of the Drought Assessment Findings and Recommendations**

4.22 Once assessments are concluded, the Early Warning Technical Committee of the IMDC produces an annual report on drought and household food security outlook for the year. The findings and recommendations cover food security, nutrition and safety nets programmes being implemented. The findings and recommendations are then presented to the combined meeting of the IMDC and the NFS-MG for an in-depth review primarily, because the short term food policy issues, which are the primary mandate of the IMDC, have a tendency of spilling-over into long-term issues. These policy innuendos do need to be ironed out before the report is actually presented to the Rural Development Council for discussions and resolutions. Finally, these drought findings and recommendations, once consolidated, are then submitted to Cabinet for a decision.

4.23 The findings and recommendations of the EWTC essentially describe current food security and nutrition situations; on-going drought relief programmes; new programmes that are being proposed for implementation and/or existing programmes to be scaled up in the event of food insecurity in the country due to a drought emergency. The findings at the household level are however assumed; without necessarily conducting a detailed assessment at that level. The EWTC may well be running the risk of poorly targetted interventions in its recommendations. Recommended interventions might not necessarily address the assumed impacts, because the form of the impact and the information of target groups is not always readily available. Increasingly, the EWTC recommendations do not specify the time-period of the interventions. The EWTC does not routinely differentiate in its recommendations, between types of interventions to address short-term problems and those that address long-term issues.

## 5.0 Key Concepts, Management Information Systems and Policies in a New VAA System for Botswana and the Regional Experience Perspective

### Understanding Vulnerability, its Linkages to Information Systems and Policies that are relevant to the functioning of a VAA System

5.1 The establishment of VAA system in Botswana requires a better understanding of vulnerability in its broader sense and the key concepts of food security. Practitioners and other users of the current information systems in Botswana use the term vulnerability, rather loosely, in their reporting systems with little understanding and interpretation. In the Botswana context, vulnerability has been associated with many risks in different sectors of the Botswana economy. These risks have rarely been analyzed for their impacts at the level of the household, using the DAT field data. In consequence, household-level impacts of the drought are often assumed away during the annual DAT exercises. Table 2 of Annex 1 to the report, although not exhaustive, summarises the current management information systems used in Botswana, indicators being monitored and the risk factors associated with vulnerability.

### Definitions

5.2 According to the SADC RVAC-PMU's glossary of terms, vulnerability is defined as a condition in which, *'people are vulnerable if they are expected to be unable to cope with a defined hazard. For example, people are vulnerable to crop failure if such a hazard is likely to reduce their access to food or cash below a defined threshold'*. In other words, the key phrases are expected coping or lack of it and perceived (likely) or actual performance, which serve to define vulnerability gap (paragraph § 4.17).

5.3 The concept of vulnerability is understood to include a full range of factors (drought, floods, diseases, bush fires, etc) that place people at risk to a given shock, say food insecurity. The degree of vulnerability of individuals, households or groups of people is determined by their exposure to risk factors and their ability to cope or withstand stress situations<sup>10</sup>. In most cases shocks are in different forms and levels and can vary in degree from one area to another and from one social group to another within the same geographical locality.

5.4 The extent of vulnerability depends on how people are engaging in other activities in order to either cope or increase coping strategies. These coping strategies can be changes in dietary intakes (both in frequency and amounts), migration, and working more hours to make up for either the loss of income, food or both. Practitioners of the current information systems in Botswana look at a number of indicators with a focus on drought only and rarely, do these analysts take other disaster types into account in order to determine vulnerability impacts at household level. In other words, vulnerability of households to most forms of risks is not always assessed, comprehensively

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<sup>10</sup> Timothy R. Frankenberger *et al* (October 2005)

and accurately. Thus, rural livelihoods would remain largely elusive and inadequate for policy management purposes.

5.5 *Food security is achieved when all people at all times have physical, social and economic access to sufficient, safe and nutritious food, which meets dietary needs and food preferences for an active and healthy life*<sup>11</sup>. The components of this definition include: food availability, access to food, food utilization and stability of food supplies and prices over time. However, in order to assist practitioners to understand vulnerability to food insecurity for example, assessments must increasingly target household types. The DATs must routinely collect household-level information on a minimum of impact indicators of food and nutrition insecurity.

5.6 Some selected policies of the Botswana government do underscore welfare improvements to rural households through improved food security (availability, access and nutritional status); through stabilizing prices; creating employment; managing HIV and AIDS; through efficient use of land and natural resources and poverty reduction. A well designed VAA system therefore, can help monitor impact indicators (productivity growth rates; wage rates; proportion of people employed; proportion of people with inadequate food intakes; food price movements; child and adult malnutrition etc) at the household level in order to measure progress over time. The greatest motivation for such a stylized system is to be able to build time-series databases on key impact variables for trend analysis. Table 3 of the Annex 1 to the report highlights selected policies, which are relevant to VAA system.

### **Regional experience in VAA systems**

5.7 At a regional level, a number of countries have National Vulnerability Assessment Committees (NVACs). These countries have established regular VAA monitoring systems at national and sub-national levels, and Botswana should be able to learn from their processes in establishing a VAA system. These countries include Namibia, Zambia, Mozambique, Malawi, Swaziland, Angola, Zimbabwe, and Lesotho. The NVACs comprise a number of development actors within each country; who may be hosted within a government ministry. These development partners typically include UN Agencies, NGOs, academic institutions, government departments and the private sector. The government agency hosting the NVAC also contributes a NVAC chair.

5.8 The institutional placement of the NVACs varies from country to country. For example, in Zambia, Swaziland, Zimbabwe, and Namibia, the NVAC secretariats are in government departments, which assess and manage disasters. In Malawi however, the secretariat is under government ministry responsible for policy formulation and implementation and for the monitoring and evaluation of government policies and strategies. The mandate of the NVACs in these countries is to maintain communication and coordination between government and key stakeholders for better understanding of food insecurity and vulnerability and the underlying causes.

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<sup>11</sup> World Food Summit, November 1996

5.9 The VAA assessments are conducted in all of the countries during the same periods, usually towards the end of the wet season from March to May, when likely impacts are clearer. These assessments are coordinated in-country with technical backstopping, where possible, from the Regional Vulnerability Assessment Committee (RVAC). The assessment approach used is livelihoods-based and the information is collected at all levels, from household-level to secondary level information. Most countries in the region, which have NVACs, use livelihood-based approaches to vulnerability assessments and analyses.

5.10 The livelihood-based approaches allow NVACs to establish baselines against which current information, analyses and findings are compared. These NVACs have divided countries into sub-regions called livelihood zones for livelihood analysis. The approach also helps to determine the form of interventions required; establishes targeting criteria; identifies the target population groups; defines geographical coverage and it is also used to determine the period of assistance.

## **6.0 List of Intervention Programmes and Target Vulnerable Groups**

### **Intervention Programmes**

6.1 In Botswana there a number of programmes that are implemented throughout the year in order to provide relief during drought emergencies and/or as social safety nets to individuals and households in non-drought years. These programmes include Destitutes Programme; Community Home-Based Care; Orphan Care Programme; School Feeding Programme; Vulnerable Group Feeding Programme; and Labour-Intensive Public Works Programmes. The programmes are implemented by the Departments of the Social Services, Local Government, Finance and Procurement (Food Relief Services) and Local Government Development Planning in the Ministry of Local Government.

6.2 The programmes target different groups of vulnerable people and the numbers of target groups and individuals vary depending on the severity of the problem. The programmes are designed to reduce food insecurity and contribute to poverty reduction. Table 1 below summarizes information on the vulnerable groups being targeted. The table also describes the determining factors of the programme or justifications of reasons why such groups of people and individuals are in the programmes in the first place.

Table 1: Intervention programmes, vulnerable groups and programme determining factors

No	Type of Intervention	Vulnerable Groups	Determining factor
1	Destitutes Programme	Destitute persons, needy children, children whose parents are under Community Home-Based Care.	Drought/food insecurity, unemployment, needy children whose parents are chronically ill
2	Community Home Based Care	Patients on supplementary feeding	Illnesses and food insecurity
3	Orphan Care Programme	Orphans	No parents & ≤ 18 years old, food insecurity
4	School Feeding Programme	School going children	Education
5	Vulnerable Group Feeding Programme (VGFP)	under-fives, pregnant mothers, lactating mothers, TB outpatients and 5 - 6 years out-of-school children	Malnutrition, food security and diseases particularly TB
6	Labour-Intensive Public Works Programmes	Able bodied people	Drought, unemployment

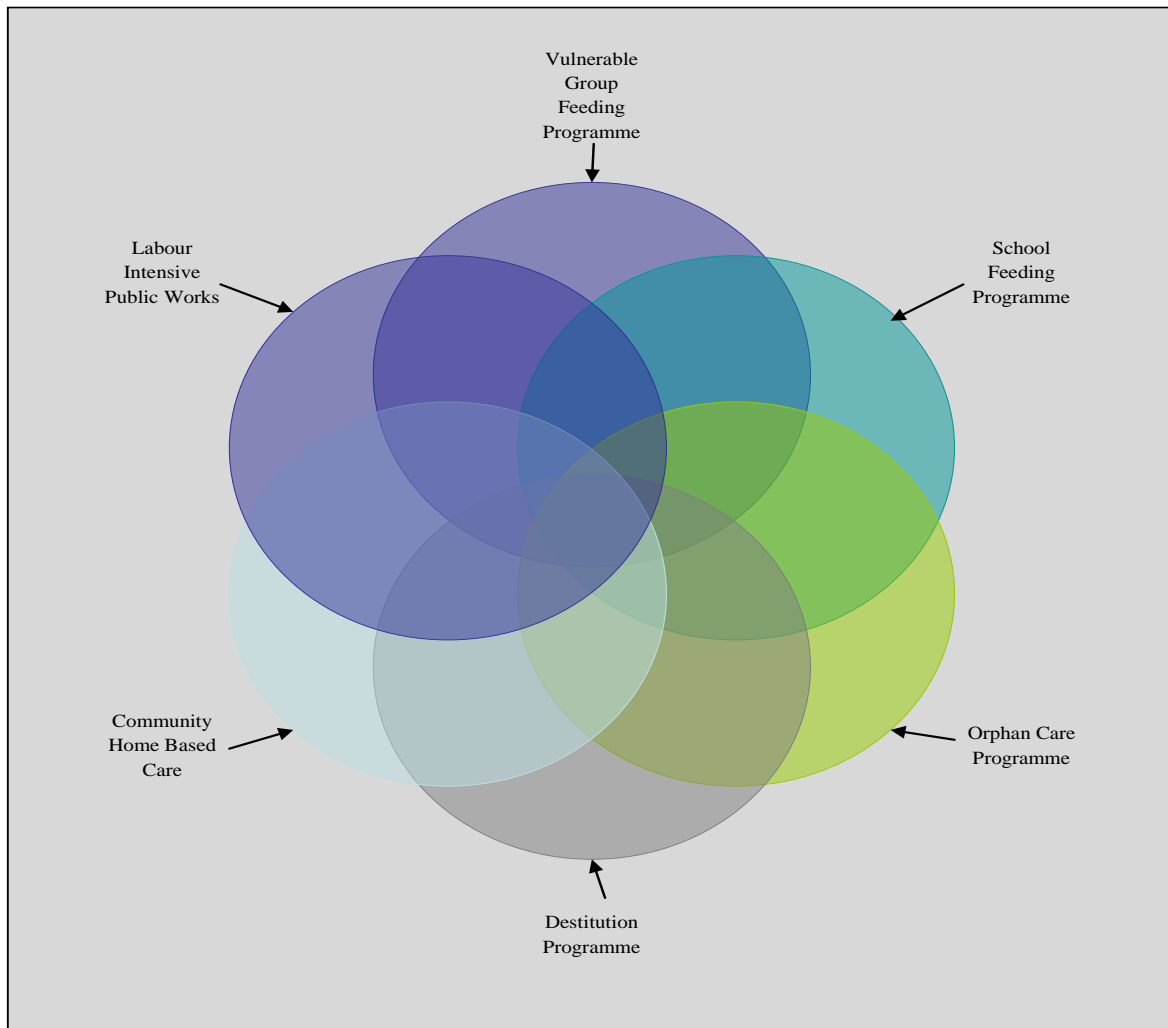
### Sequencing of interventions, monitoring and targeting

6.3 Programme interventions are implemented during the drought and non-drought years; the only difference being that more people participate in the programmes during drought period than in non-drought years. Programme assistance that was designed to address short-term effects (e.g acute food insecurity) in drought-declared years has often been continued even in good years. Targeting in most programmes has not always distinguished between beneficiaries of long-term assistance and those of short-term assistance, both of whom are affected differently by the drought. If such distinctions were made at design stages, programmes would perhaps have been implemented differently; in terms of component mixes and the phasing of implementation. Poor design and monitoring of these interventions have encouraged a dependence on government transfers, even in good years.

6.4 Majority of the programmes do not have strict targeting guidelines. Programmes are designed independently of one another; the exception being the school-feeding programme, where blanket targeting was advisable in order to encourage learning. Hence, it is highly probable that individual households may be benefiting from multiple programmes, simultaneously. Programme overlaps may lead to resource misallocation, if programmes are not managed properly. Impacts of such misallocations on markets and on other sectors of the rural economy may be difficult to quantify in the short-run; but are nevertheless real and feasible when financial resources are available for

the purpose. Figure 2 below shows how programmes overlap; when design and targeting activities are not coordinated.

Figure 2: Intervention programmes overlap.



## 7.0 Main Findings

### Current institutional framework

7.1 At the national level two of the committees, namely the IMDC and the NFS-MG, share membership in the monitoring of food security and, they basically discuss similar technical issues. The IMDC focuses on the short-run food policy; while the NFS-MG focuses on long-run food security policy issues. For practical purposes, most issues are discussed jointly by the two committees in combined meetings. Therefore, these mandates can be easily merged into one function. Similarly, some technical issues that are currently covered by the NFS-MG are also covered by the Multi-Sectoral Committee on Poverty Reduction (MSCPR). Clearly, there is duplication of roles; where the same policy issues are discussed in different fora by organs that perform the same function at varied levels of detail.

7.2 At national level, the linkages among national committees dealing with cross-cutting issues, other than food security and droughts, across sector ministries have generally been very weak. The focus of the current early warning system and related assessments has typically been on drought. Thus, EWTC does not adequately integrate information on other types of disasters from the National Disaster Management Office and the HIV/AIDS surveillance data collected by Ministry of Health from sentinel sites throughout Botswana. These cross-cutting issues are very important and critical when analyzing data to depict vulnerability trends in different parts of the country. Thus, indicators such as prevalence of HIV and AIDS and issues related to poverty need to be captured for areas.

7.3 At district level, information collection on a number of issues is well coordinated. At this level, unlike at the national, most sectoral meetings including those that discuss cross-cutting issues are chaired by the District Commissioner assisted by the Council Secretary. Often, sectoral meetings are too frequent and become numerous because of the proliferation of issues for discussion. Consequently, this scenario then creates unnecessary workload at that level. Sectoral issues need to be discussed together in order to understand the different risk factors that affect rural people.

7.4 At national and district levels, membership to most committees is dominated by Government departments, except the MSCPR. The other key stakeholders who are non-governmental are not included in discussion of issues of national interest. Therefore, coverage of issues and information sharing is not adequate.

7.5 The mandate of EWTC is to monitor strategic food sources, incomes of rural population, markets, and food commodity prices. But these indicators are not comprehensively captured in both the guidelines used for data collection and in annual assessment reports, which are released in February of each year. **There is inadequate information on nutrition indicators such as weight-for-height (stunting) and weight-for-age (wasting). There is also lack of information on seasonal variations in dietary intakes. This is so because of lack of capacity to either conduct nutrition surveys or include all nutrition indicators in current assessment tools.**

7.6 The assessments are done at district level of aggregation and do not go down to the household level. The findings of the assessment are normally assumed at the household level.

7.7 The NEWU does not routinely incorporate in its reporting system price trends information, which is monitored by the regional SAFEX cereal market in Johannesburg, RSA in order to make informed recommendations on price levels.

7.8 Timing of annual drought assessments by the EWTC through DATs is during late January to early February. However, this period is not optimal for capturing the impacts on most indicators during the rainy season<sup>12</sup>, because these may not be quantifiable. With climate changes, often there are delays in implementing some farming activities; hence the period of late January to February would be too early for DATs. The ideal timing for DATs is the period of March to April, when the situation is more visible on the ground and most farmers start harvesting their crops, then.

7.9 The findings from the drought assessments should clearly help to identify vulnerable groups; to design targeting schemes, types of intervention, mode of programme implementation and sequencing of interventions. However, most drought programmes are hardly monitored and evaluated for impact. It is often hard, in the absence of empirical information, to understand and/or identify the extent of households' dependency on government transfers, in terms of programmes a particular household would have benefited from. Similarly, evidence on programme impacts on the rural economy is not always available. In the drought assessment reports, programme impacts are typically assumed away at the household level. For example, Labour-Intensive Public Works Programme is assumed to improve household-level incomes; without these improvements having been assessed at that level.

7.10 The methodology of focused group discussions with district-level counterpart teams of officials is a good one; but the processes are invariably always incomplete. The main focus of the assessment is to verify information reported to EWTC by the different sectors. However, no further follow-ups are done to the lowest level in order to monitor and assess the changes in the livelihood patterns of individuals. At the regional level, countries that have established NVACs, routinely use livelihood-based approaches to understand both rural and urban population dynamics, particularly in countries where urban poverty is rampant.

7.11 Drought assessment findings do not always have baselines or benchmarks to make comparisons. The EWTC compares current year findings to previous years' findings without establishing a reference period, which is representative of a normal situation in Botswana. The danger of not establishing baselines is that consecutive bad years can be compared together and, less than objective recommendations made based on the relative picture of those years.

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<sup>12</sup> The rainy season is from October to April.

7.12 There is little demonstrated evidence that vulnerability trends are in fact analyzed on the basis of data collected from the field. Most results are deduced. For example, the trend figures on the destitution for some districts have been increasing for some consecutive years and yet, no mention is made of the underlying causes.

7.13 Often, there are some inconsistencies in the reporting of the assessment findings. Some presentations are in tables of statistics and text, which may prove difficult to read; to understand and make meaningful decisions by most policy makers. Very little explanation is made in presenting the findings, graphically. For example, some analysts use to the same end, Geographic Information Systems (GIS) to spatially present findings, showing the severity of the problems (hazards) from one area to the next.

## **8.0 Recommendations**

### **8.1 Government must establish a Botswana VAA system with streamlined institutions for monitoring food and nutrition insecurity, vulnerability analysis; including drought surveillance and poverty reduction monitoring**

8.1.1 The first step is to expand the current mandate of the EWTC to include under a new VAA system for Botswana the monitoring of all types of disasters, and HIV/AIDS surveillances in addition to food and nutrition insecurity monitoring.

8.1.2 The next step is to review the mandates and membership of the IMDC and the NFS-MG. with a view to merging the two committees, preferably into one National Food Policy Coordination Committee (NFPCC) with an expanded mandate for monitoring both acute and chronic food and nutrition insecurity and vulnerability issues. This streamlining of functions will reduce the workload of the officials dealing with similar issues both at district and national levels.

8.1.3 It is proposed that a close operational liaison be maintained between the NFPCC and the MSCPR through the Director for Poverty and Food Security Policy Coordination (see recommendation 8.3).

### **8.2 Government must review at the earliest opportunity the membership of the EWTC with a view to expanding it to be more inclusive, multi-sectoral and multi-disciplinary in nature to reflect its enhanced national status as an NVAC.**

8.2.1 In addition to existing membership of EWTC, other potential stakeholders to be roped in the Botswana NVAC should include the Department responsible for HIV and AIDS in the Ministry of Health; the National Disaster Management Office in the Office of the President; UNDP; UNICEF;

FAO; Botswana Red Cross Society; Botswana Council of Non-Governmental Organizations (BOCONGO); Botswana College of Agriculture; and others as identified from time to time.

8.2.2 These members should be classified as providing both technical and field level support; and others as those providing the technical support at national level and therefore, eligible to participating in national-level meetings.

**8.3.1 Government must establish a secretariat for the new NVAC in the Poverty and Food Security Policy Coordination Section of the Ministry of Finance and Development Planning, primarily because of the coordinating role it is playing to a number of committees, including the EWTC, IMDC, NFS-MG and MSCPR.**

8.3.1 Currently, the section coordinates policy formulation, implementation and monitoring at multi-sectoral level. The section also leads in Drought Assessment Tours. It will however need to have matching capacities, in terms of budgetary resources and dedicated staffing at fairly senior levels of management in order to service a fully fledged NVAC (see Annex 2 for the Terms of Reference of the proposed NVAC).

8.3.2 Government must review the capacity of the Poverty and Food Security Policy Coordination Section, with a view to appointing a senior staff-member to the position of Director to become a substantive chair-person of the new NVAC.

8.3.3 It is recommended that a SADC Technical Advisor to the NVAC be recruited as matter of urgency, to assist in building the capacity of the secretariat in livelihoods-based methodologies for vulnerability analyses. Government must identify a local counterpart to the advisor at an appropriate salary scale (pref. at Principal II level). Equally, an applied statistician will need to be seconded to provide dedicated statistical support and backup to the secretariat. There is need to identify the requisite resources, equipment and specialized software for the secretariat. Capacity building will need to be simultaneously organized for both the assigned staff and the key stakeholders.

8.3.4 Capacity building on VAA will be necessary at national and district stakeholder levels in order to adequately monitor skills uptake as well as progress in assessing stressful conditions among rural people. This will involve conducting training workshops on VAA methodology and tools.

**8.4 Government must review drought assessment methodologies with a view to emphasizing use of other secondary sources of information and livelihood-based approaches in data gathering**

8.4.1 It will be useful, after verifying district-level information, to review the methodological processes with a view to introducing livelihood-based approaches at the household level. Livelihood assessment approaches focus on livelihoods patterns of a household and geographical patterns. These methods normally establish baselines against which current situations are compared.

8.4.2 Greater use of other secondary sources of information should be made in order to build vulnerability trends possibly, with regular statistical validation and backstopping support of the Central Statistics Office. The assessment and analysis should include factors that affect the economy of Botswana as a net importer of food and other commodities. For example, the analysis should necessarily include current price trends in regional markets. This will allow analysts to develop scenarios of vulnerability trends based on past experiences.

8.4.3 The methodological review will largely help bring out some critical policy design issues, which are a basis of vulnerability analysis, such as what risks are driving current vulnerability trends; who the vulnerable groups are; where they are located; what form of assistance they require; and for how long.

**8.5 Integrate VAA into the current early warning monitoring to strengthen the monitoring activities at the household and and community levels. Furthermore, the timing of the vulnerability assessments should target the period when ploughing/planting activities have been concluded.**

8.5.1 The monitoring activities should be strengthened to include activities undertaken at both household and community levels in respective sectors, such as household-level coping strategies. This will help in designing assessment tools and in identifying areas of focus during assessments.

8.5.2 The period the DAT is conducted is at the peak of the rainy season, when most indicators being monitored are not yet conclusive. It will be necessary to shift the period of the assessment to March/April, which is the period when farmers do forecasting of the season's crop production, and the grazing availability for animals is clearer. Meanwhile, the situation will be closely monitored through monthly reports presented and submitted by the committee members.

**8.6 Government must strengthen the monitoring and evaluation of relief intervention programmes on a routine basis.**

8.6.1 Current on-going drought interventions being implemented in different parts of the country should be routinely reviewed and categorized into short to long-term programmes. This will assist to improve the targeting of programmes and also in the selection of basket/packages being provided to the vulnerable groups under different programmes.

8.6.2 The EWTC/NVAC should then develop targeting guidelines specific to each intervention programme and clearly, define targeting criteria for the beneficiaries and period of assistance. The targeting guidelines should reflect, among others, issues of capacity building for programme implementers; monitoring and evaluation techniques; assessing linkages and impacts of the different programmes on the economy and other social sectors.

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Annex 1: Information systems and policies/strategies relevant to VAA system establishment in Botswana.

Table 2: Information systems relevant to VAA

No	Institution	Information System	Indicators Monitored	Risk Factors
1	Crop Production	The information collection is coordinated by the Department of Crop Production in the Ministry of Agriculture and the focus is on crop production and associated conditions.	area ploughed; area planted; estimated yield, crop production estimates, and pests and diseases	drought, pests' outbreak, rainfall pattern and temperature, floods, area planted and availability of inputs
2	Animal Production	The information is collected by the Department of Animal Production in collaboration with the Department of Veterinary Services both in the Ministry of Agriculture.	livestock types and conditions; animal population; conditions of pasture; water availability; pests and diseases	low income levels of farmers to purchase feed, animal mortality, price increases of animal feed, feed availability, drought and the selling price of final product
3	National Early Warning Unit	NEWU is under the Department of Agricultural Business Promotion in the Ministry of Agriculture. It collaborates with Meteorology Department; Department of Forestry and Range Resources, Family Health Division (Food and Nutrition) under the Ministry of Health; Department of Water Affairs; and BAMB.	rainfall performance, crop and livestock production estimates, prices, nutrition data; and water availability	prolonged dry spells
4	Meteorological Services	The Department of Meteorological Services monitors the rainfall situation during the rainy season which is from October through April and daily temperatures.	rainfall pattern (distribution and intensity) and daily temperatures	prolonged dry spells, high rainfall intensity

5	Forestry and Range Resources	The focus is on forests and range resources.	hazards such as fires; affected land area; area recovered from previous fire damage	poor climatic conditions; food availability; health; degree of fires and job opportunities in rural areas
6	Wildlife and National Parks	The focus is on wildlife	wildlife population, wildlife conditions such as diseases, conditions of the grazing land, water availability, risk hazards such as fire and illegal poaching	illegal poaching; fires, damage to the habitat or land degradation; diseases; water availability; and range conditions
7	Social Services, Food Relief Services, Local Government Development Planning	Implement social safety nets programmes and these include: School Feeding Programme; Labour Intensive Public Works Programme; Destitution Programme; Community Home Based Care, Orphan Care Programme; Primary School and Vulnerable Group Feeding Programme.	Food basket or cash transfer, target group, and area of coverage.	unavailability of food
8	Water Affairs	Focuses on hydrological drought.	Levels of water in dams, rivers and ground water levels	Drought
9.	Nutritional Surveillance Monitoring System	The Food and Nutrition Unit in the Ministry of Health is responsible for monitoring the nutritional situation	Nutritional levels of under-five children	nutritional levels of under-five children
10	HIV and AIDS Surveillance System	Implemented by the Ministry of Health and collects data on HIV prevalence rate among pregnant women from sentinel sites.	Data on HIV and AIDS prevalence rate	

11	National Disaster Management Office	Focus is on disasters	Types of disasters (fires, floods, and diseases); the response to the situation; the damage caused by the disaster; and the frequency	Rapid onset disasters like bush fires and floods
12	Central Statistics Office (CSO)	Conducts the population census and also a number of surveys on income, health, labour force, education, etc	Population estimates, consumer price index, literacy levels, health, poverty, income, etc	

Table 3: Relevant policies and strategies to VAA

Policies/ Strategy (year)	Policies/Strategies relevant to VA	Areas of monitoring
2007	Community Based Natural Resources Management Policy	Natural resources, incomes, employment, poverty
2003	National Strategy for Poverty Reduction – linked to Government policies and strategies	Poverty, household food security, price stability, incomes, employment, managing HIV/AIDS, safety nets
2002	Revised National Policy for Rural Development	Poverty, gender, HIV/AIDS, social protection (improve coverage, targeting, adequacy, efficiency, and effectiveness), land and natural resources, livelihoods and agriculture, employment.
2002	Revised National Policy on Destitute Persons	Destitute persons, packages
2002	National Master Plan for Agriculture and Dairy Development	Agriculture (Crop and dairy production, Subsidies, infrastructure)
2000	The Revised National Food Strategy	Poverty, food security (availability, access, quality, nutritional status), markets, malnutrition, relief programmes,
1997	Vision 2016	Poverty reduction
1991	National Policy on Agricultural Development	Food security, employment, land resources, incomes, crop prices

## Annex 2: Generic Terms of Reference for the National Vulnerability Committee (NVAC)

The proposed terms of reference of the NVAC will include the current EWTC mandate but with a focus on vulnerability and food security issues. The expanded mandate will therefore include:

- (i). undertaking annual food security and vulnerability assessments of the rural population;
- (ii). monitoring the current trends in food security and cross-cutting indicators and producing periodic updates to high level committees and key stakeholders<sup>13</sup>;
- (iii). coordinating secondary data collection for annual vulnerability assessment and analysis and this data include: prevalence of HIV and AIDS, market price trends, population projections, and data on specialized surveys relevant to VAA;
- (iv). developing annual work plans, which clearly outline the activities to be implemented in a particular year and the associated budget;
- (v). coordinating annual assessment trainings at national and district levels;
- (vi). coordinating and/or collaborating with Nutrition Staff on nutritional surveys and monitoring trends in human nutritional status;
- (vii). monitoring public works programmes, food aid commitments and the availability of funds for cash interventions and food purchases;
- (viii). reviewing assessment methodologies;
- (ix). establishing livelihoods profiles for the different areas of Botswana and identifying livelihood profile zones;
- (x). establishing a baseline for vulnerability assessments and analysis for Botswana;
- (xi). monitoring changes in livelihoods against baseline profiles and linking the findings to poverty monitoring processes;
- (xii). undertaking public information, education and communication campaigns;
- (xiii). establishing and maintaining a database of vulnerability assessment findings throughout Botswana;
- (xiv). providing administrative and technical linkages among members within the committee and stakeholders;
- (xv). developing a website for information dissemination and;
- (xvi). producing reports and recommendations on policy issues for consideration by the RDC.

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<sup>13</sup> The indicators to be monitored include: household level coping strategies, markets and prices, national food availability, crop production (area ploughed, planted and the expected yield), rainfall situation, livestock and wildlife grazing and water conditions.

### Annex 3: List of people interviewed

	<u>Name</u>	<u>Organization</u>
1.	R. Radibe	Ministry of Finance and Development Planning
2.	Tesfaye Teklu	Ministry of Finance and Development Planning
3.	C. Koketso	Ministry of Finance and Development Planning
4.	T. Keseabetswe	Ministry of Finance and Development Planning
5.	M. Bingana	Ministry of Finance and Development Planning
6.	K. Molefhi	Ministry of Finance and Development Planning
7.	P. Ramosweu	Ministry of Finance and Planning Development
8.	B. Matlhaga	Ministry of Finance and Development Planning
9.	K. Sebolaaphuti	Ministry of Finance and Development Planning
10.	B. Rakgantswana	Ministry of Finance and Development Planning
11.	B.S. Masilo	Dept of Animal Production
12.	J.K. Mthetho	Dept of Animal Production
13.	J.C. Moreki	Dept of Animal Production
14.	E.G. Ndadi	Dept of Veterinary Services
15.	Duncan Samikwa	SADC RVAC-PMU
16.	Keikanelwe Moremedi	Dept of Crop Production
17.	Kgasane Tsele	Department of Meteorological Services
18.	Jeremiah Ramontsho	Dept of Forestry and Range Resources
19.	Shirley G. Moncho	Ministry of Agriculture
20.	Kebotsemang Ofaletse	Ministry of Agriculture
21.	Keleemetse Garebamono	Ministry of Agriculture
22.	Jones Proctor	Botswana Agricultural Marketing Board
23.	Seipati G. Olweny	Ministry of Trade
24.	Goitseone Lebonetse	Dept of Wildlife and National Parks
25.	H. H. T. Tarimo	Ministry of Health
26.	Panky Mogomotsi	Ministry of Health

Name	Organization
27. Michael Basheke	Ministry of Health
28. Matsapa Phegelo	Ministry of Health
29. Kenanao Motlhoiwa	Ministry of Health
30. Jeffrey Moagi Babusi	Dept of Water Affairs
31. Ditshupo Kgosilenumo	Dept of Water affairs
32. I. Ramokate	Dept of Water Affairs
33. Nuhke A. Tau	Dept of Water Affairs
34. Benjamin Ngoni	Dept of Water Affairs
35. Sennye Obuseng	UNDP
36. Vanity M. Mafule	Ministry of Local Government
37. B. M. Letsholo	Ministry of Local Government
38. Ronald M. Molojwane	Ministry of Local Government
39. Milly Monkhei	Botswana College of Agriculture
40. Nkosiyo Moyo	National Disaster Management Office
41. James Warner	UNICEF
42. K. Hartman	UNICEF
43. Matlhodi M. Serero	Bank of Botswana
44. Stanely Makosha	Ministry of Finance and Development Planning
45. Kgosietsile Maripe	Botswana Red Cross Society
46. Phaladi Labobedi	Central Statistics Office
47. Diemo Motlapele	Central Statistics Office

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