

## EXECUTIVE SUMMARY

USAID's Office of Food for Peace defines *food security* as "when all people, at all times, have both physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for a productive and healthy life."

Three distinct variables are essential to the attainment of food security:

1. **Food Availability:** Sufficient quantities of appropriate, necessary types of food from domestic production, commercial imports or donors other than USAID, are consistently available to the individuals or are with reasonable proximity to them or are within their reach.
2. **Food Access:** Individuals have adequate incomes or other resources to purchase or barter to obtain levels of appropriate food needed to maintain consumption of an adequate diet/nutrition level.
3. **Food Utilization:** Food is properly used; proper food processing and storage techniques are employed; adequate knowledge of nutrition and child care techniques exist and is applied; and adequate health and sanitation services exist.

-- *USAID Policy Determination, Definition of Food Security, April 13, 1992*

This Policy Determination provides the parameters within which USAID development programs should be operating to assist their host countries in achieving sustainable food security for its populations. Given that food security is a basic, fundamental right of all populations, USAIDs must give priority to this issue in their development programming in countries where food insecurity continues to exist.

In Zambia, food insecurity is chronic for much of the population and has a major impact on the country's ability to develop economically. Malnutrition is endemic, affecting *almost fifty percent of all children under the age of five!* (*Republic of Zambia, Demographic Health Survey - DHS*). Child stunting rates are some of the highest in Africa. The 2002 Human Poverty Index (*UNDP*) ranked Zambia 153<sup>rd</sup> out of a total 173 countries. In the rural areas, the source of the country's food production base, fully 83 percent of the population is considered impoverished. (*Republic of Zambia, Living Conditions in Zambia*). Clearly, food insecurity in Zambia is a complex and chronic development issue that will require the long-term commitment of the Government and the support of USAID and other major donors to be effectively resolved.

The following analysis of food security, health and nutrition in Zambia was conducted by a combined Bureau team to assist the USAID Mission in its efforts to design its next Country Strategic Plan. The purpose was threefold: 1) to research the extent of the existing food security problem in the country and the types of vulnerable populations; 2) to evaluate the approach of the Mission's new 2004-2010 Country Strategic Plan concept paper for addressing key food security, health and nutrition issues; and 3) to advise the Mission on additional improvements they might include in the new strategic plan to enhance food security, health and nutrition interventions.

## **Current Food Security Situation**

Despite Zambia's good agricultural potential, there are significant, long-standing food insecurity problems in the country. This is particularly true in drought-prone areas in the Western Province and parts of the Southern and Eastern Provinces. However, agricultural output for many years has not kept pace with population growth, creating a major problem of *chronic food insecurity* for 70 percent of the population. (*Republic of Zambia, Living Conditions in Zambia*).

Several factors have contributed to continuous food shortages in Zambia. The long list includes recurrent droughts, pervasive poverty, poor infrastructure and limited investments in agriculture, insufficient attention paid to smallholder agriculture, policies that favor urban businesses over farmers and consumers over producers, policies that distort prices and interfere with markets, etc. But what separates this country from many others is its heavy dependence for the last three decades on maize as the predominant food crop. The production sector is dominated by maize, which accounts for about 65 percent of land cropped annually and for about 90 percent of all cereals. Fully 60 percent of an average person's caloric intake comes from maize, one of the highest levels of dependence on maize in Africa (*United Nations (FAO). July 2002. Food and Agriculture Organization Statistical Database (FAOSTAT) Standardized Food Balance Sheet*). In addition, Zambia has produced only enough grain to meet national food requirements for two out of ten years between 1990 and 2000. (*United Nations FAO*). This has clearly had a profound impact on the poor nutritional status of the population, especially the most vulnerable groups.

Presently, Zambia is faced with a food crisis attributable to unfavorable weather patterns compounded by reduced food production in the last two consecutive agricultural seasons (2000/2001 and 2001/2002). Up to 50 percent of the Zambian population in rural and urban areas is facing some form of food insecurity. Those most affected include smallholder farmers, who rely on the food from their farms for subsistence, and the urban poor who will face higher food prices. The death and sale of livestock and sale of seed stocks to purchase food will also constrain the ability of vulnerable households to recover from the drought. Poverty is likely to deepen and the numbers of vulnerable populations may also continue to grow.

To make matters worse, the HIV/AIDS pandemic is having deleterious effects on productive assets and labor at the national and household level, as well as greatly impacting Zambia's health care systems. In the midst of this crisis, the current food insecurity is deteriorating community capacities at the local level to effectively cope with their growing poverty and to adequately feed and care for the more vulnerable members of their households. HIV/AIDS has emerged as a formidable and long-term constraint that will have a growing negative impact on Zambia's food security picture in the future.

## **Current Health/Nutrition Situation**

Malnutrition in Zambia is a serious development. It contributes to the country's high rates of child mortality and serious morbidity, affects mental development, and impedes school performance and labor productivity later in life. In adults, nutritional status affects the progression of HIV and the survival of those with AIDS. In the past ten years, increasing rural and urban poverty, a high burden of disease, and improper feeding and agricultural practices have led to a serious decline in nutritional status in Zambia. The current food emergency, characterized by very low household food stocks in rural areas and unprecedented high prices for maize in both rural and urban markets, will exacerbate the poor nutritional situation of vulnerable groups, such as young children, pregnant and lactating mothers, people living with HIV/AIDS and orphans.

The DHS provides the most recent national and regional level data on maternal and child malnutrition. Most alarming are the stunting rates for children under-five. **Stunting** is an indicator of chronic malnutrition caused by continuing inadequate food intake and/or frequent episodes of illness over a period of time. 46.8 percent of children under five are moderately stunted (below 2 SDs height for age) and 22.2 percent are severely stunted (below 3 SDs height for age). With these levels, Zambia has one of the highest rates of stunting in all of Africa. Stunting begins early in life with 36.8 percent of children 6-9 months already stunted, and increasing to 55.6 percent of children stunted between 12-23 months of age. Stunting early in life has irreversible consequences. Studies have found that adult stunting is associated with reduced physical capacity and economic productivity.

Overall the DHS presents a very serious national nutrition problem that has gotten progressively worse over the last ten years. If not addressed, malnutrition will continue to contribute to high rates of child mortality and morbidity, low birthweights, and reduced educational and economic performance for Zambians throughout life.

#### **Determinants of Food Insecurity and Malnutrition in Zambia**

- Poverty
- Shocks
- Dietary habits and improper child feeding practices
- Disease
- Agricultural policy and production factors

#### **Poverty**

Zambia is one of the poorest countries in the world, facing numerous macro-economic and social development problems. In the most recently released (2002) Human Poverty Index, the United Nations Development Programme (UNDP) ranked the country 153<sup>rd</sup> out of a total 173 countries. The ability of households in both rural and urban areas to access adequate food has significantly decreased during the last decade. According to the Central Statistics Office's Assessment of Poverty, more people were living in poverty at the end of the 1990s than at the beginning of the decade.

#### **Shocks**

It is important to understand the influence of shocks, such as HIV/AIDS and the recurrent droughts on the food security and nutritional status of Zambians. Given the already severe poverty situation, many households no longer have the cushion to absorb these shocks and are taking longer to recover. These shocks cause already vulnerable households to become even more impoverished, more food insecure and less able to access a nutritious diet.

*Drought* has been a recurrent problem in Zambia over the past decade, especially in Southern Province. Since 1991 there have been three major droughts that have significantly reduced food production (primarily maize) to the point that the country had to declare disasters and seek international assistance. During the most recent 2001/02 cropping season, erratic rains and long dry spells resulted in low agricultural output and exacerbated an already precarious food situation. The result has been that 1-2 million Zambians have required some form of food aid in the 2002-2003 period. (*SADC, Emergency Food Security Assessment Report*).

*HIV/AIDS* has significantly affected food security and purchasing power of households throughout Zambia. HIV/AIDS strikes men and women in their most productive years. Over the

past ten years, approximately 600,000 people have died from AIDS and approximately 1.0-1.2 million people are currently living with the disease. DHS 2001-02 indicates an 11 percent prevalence rate in the rural areas and a 23 percent rate in urban areas. As a result, over 1 million children are orphans, which include children who have lost one or both parents. Thus a substantial number of households have been affected by AIDS, either by the death of one or more of its members, or by caring for a chronically ill person or taking in additional children. This has meant a significant loss of income, increased financial burdens and social trauma for many households.

### **Dietary Habits and Feeding Practices**

Adult dietary habits and feeding practices for young children play a particularly important role in food insecurity and poor nutritional status in Zambia. Because of thirty year-old government policies for subsidized maize production, many areas of the country have turned from traditional crops such as tubers, sorghum, and cassava and concentrated on maize production. Consequently, maize has become the predominant staple and for most people eating a meal means consuming *nshima* (typically made from mealie meal). Traditional foods that once contributed to a diversified diet have been neglected over time as maize has filled an increasing percentage of the family diet, thus contributing to unbalanced diets and malnutrition in many households.

### **Diseases**

Diseases lead to poorer nutritional status which in turn increase susceptibility to additional illness. The disease burden for young children is high. The DHS reported that 20 percent of children under-five had diarrhea in the last two weeks. Over 50 percent were reported to have had a fever and/or a cough in the last two weeks. 15 percent reported acute respiratory illness (ARI) symptoms while 43 percent had a fever. Although care-seeking behavior is improving, many children do not get prompt or effective treatment for illness, leading to greater weight loss per illness episode.

### **Agricultural Factors**

Zambia is a country of abundant land and water resources and has the potential for achieving long-term food security for its relatively small population. However, under-utilization of these resources has slowed the growth of the agricultural sector, leaving it vulnerable to the vagaries of weather and disease. Only 14 percent of arable land is cultivated, while only 13 percent of potential irrigable land is actually irrigated. A variety of climactic zones ensure a favorable environment for growing a wide variety of food and cash crops and possibilities for export expansion in horticulture, cotton and tobacco look promising. However, for the present these are small parts of an agricultural sector still dominated by maize. Government policy since the 1970s has strongly subsidized and supported national maize production. Crop diversification efforts are starting to change this national priority but production of alternative foods, such as cassava, sorghum and sweet potatoes is still insufficient to change the food insecurity picture.

Agricultural policy is an area that presents the biggest challenge to long-term food security. Government policy towards the farm and marketing sector has been erratic and frequently has reflected political imperatives other than improved rural incomes and national food security. Policies on input supply have constrained the private sector and farmer abilities to achieve significant and sustained production increases. The strategic food reserve has been ill managed and has not provided the necessary protection in times of food deficits. The subsidization of maize has subjected smallholders to undue risk in trying to feed their families and maintain their livelihoods. All of these are important areas where reform needs to be applied before serious progress will be made in stabilizing and growing the agriculture and rural enterprise sectors.

### **Vulnerable Groups**

The primary groups in Zambia vulnerable to food insecurity, poor nutrition and ill health are:

- Young children
- Pregnant and lactating women
- People living with HIV/AIDS (PLWHA)
- Orphans and vulnerable children
- Households caring for PLWHA, orphans and vulnerable children (OVC)
- Smallholder farmers

These are the groups that would benefit most from USAID interventions in food security, improved health and better nutrition. They will comprise some part of the many communities that will participate in future USAID development programs. To design that program the Mission has completed a first step Concept Paper, which outlines the strategy to be pursued over the next seven years. This paper envisions a comprehensive development strategy combining five strategic objectives -- Increased Private Sector Competitiveness, Improved Education, Improved Health, More Accountable Government, and Reduced Impact of HIV/AIDS -- all integrated in support of an overriding goal of Prosperity, Hope and Better Health for Zambians. Themes of food security and HIV/AIDS support are woven throughout.

By and large, this team supports the Mission's proposed strategy. To enhance the food security, health and nutrition aspects of the program, the team has developed a series of recommendations per SO for the Mission to consider in the ultimate design of its long-term program. Some of the more important recommendations are as follows:

#### **SO5: Increased Private Sector Competitiveness**

**Recommendation:** Food security should be an explicit theme of projects developed under SO5. SO5 clearly emphasizes an economic growth development approach. A well implemented core of programs under this objective targeting the private sector can contribute to food security as well. However, the choice of projects is important and food security must be more than just an after thought. It must be *explicit* in the design of the program. In this regard, we would recommend that **food diversification** – the cultivation of a variety of crops for consumption and/or sale, be integrated into any new project designed under IR5.1 as an extension, training or technical assistance activity.

**Recommendation:** Link production and nutrition/health activities to improve food security, health and nutrition of vulnerable groups. We recommend that any agricultural production and livelihood activities be firmly linked to **household nutrition and health** training through extension and technical assistance.

**Recommendation:** To ensure that the linked program activities above are having a positive impact on household food security and nutrition, the performance indicator – *dietary diversity* – should be added to the IR5.1 list for monitoring and measurement.

Dietary diversity – the number of individual foods or food groups consumed by a household over a given period -- has been shown to be a good indicator of the food access dimension of household food security.

**Recommendation:** To achieve better impact in programs, pool resources with other donors and jointly implement contract farming and improved agriculture activities. Several donors

are pursuing similar economic growth and food security objectives. Since these programs are costly, donors pooling their resources and targeting the same beneficiaries might have greater program impact than by operating individually.

**Recommendation:** The Mission should continue its association with FEWSNET and the Regional Center for Southern Africa (RCSA) to stay abreast of early warning on drought developments. Zambia will continue to be impacted by recurrent drought in the future, especially during El Nino events. It will need the services of FEWSNET and RCSA to mitigate losses to its agricultural and livelihood programs as a result of weather related disasters.

#### **SO 6: Improved Quality of Basic Education**

**Recommendation:** This program should address mitigating the impact of HIV/AIDS on the education system, as well as use the education system to prevent and control spread of the disease to youth. The education SO in collaboration with SO 9 should be using the education system to extend information to school age children and training to teachers about prevention of HIV/AIDS. The Ministry of education should also be actively taking actions to mitigate the impact of AIDS on its workforce.

#### **SO7: Improved Health Status of Zambians**

**Recommendation:** There is a need for a strategy across sectors to promote the importance of a more diversified diet. The Ministry of Agriculture should be assisting farmers with crop diversification and providing education to households about the nutritional value of certain crops. The Ministry of Education should be teaching about the need for diversification of crops and diet and the Ministry of Health should be reinforcing this effort with training materials and promotion through their own health services. The National Food and Nutrition Commission could play a coordination role in promoting this strategy.

#### **SO9: Reduced Impact of HIV/AIDS through Multi-Sectoral Response**

**Recommendation:** Nutrition for Positive Living should become an important component of PLWHA. Given the importance of good nutrition for achieving a longer and healthier life, nutritional education and dietary advice should be part of all support services and education materials.

#### **All SOs: Synergies Among SOs to Enhance Food Security and Nutrition.**

**Recommendation:** There is a need for a strategy across all sectors – private sector, education, governance, health, and HIV/AIDS – to promote a more diversified diet in Zambian households. The Mission should take the lead in bringing key Ministries together to discuss integration of roles in getting a combined message out to rural households about crop diversification, diversified diets, improved nutrition and health, and efficient education, training and extension.

#### **PL480 Program: Integration with the Mission Development Program.**

**Recommendation:** USAID should actively integrate available PL 480 resources into its relief and development programs in order to meet the extensive food security needs of vulnerable groups throughout Zambia. There is a critical need in Zambia for a stronger and wider safety net to capture the most vulnerable groups living in food insecure households. Food aid resources can

be used both for safety net activities involving direct food distribution as well as to support longer-term agricultural and other livelihood activities that develop sustainable income flows.

### **Opportunities and On-Going Activities Related to Mission Strategy**

There are a number of activities presently being planned or implemented that could be of use to the Mission in its strategic planning. These activities should be monitored for information and data over the next several months. Mission staff in various offices are aware of these activities, but we thought it would be helpful to review them for everyone. Some of these include:

- The new GRZ Agricultural Policy before the Parliament for review and approval.
- The FAO/Ministry of Agriculture study on the impact of HIV/AIDS on farming productivity
- FAO/DFID monthly crop assessments
- 2002/03 Crop assessment
- VAC after-harvest assessment
- WFP exit strategy
- Donor collaboration on new food security projects
- NFNC/MOH's National Nutrition Policy/Guidelines

### **Mission Management Implications**

Team recommendations on enhancing the SO5 program should not require additional project officer management beyond what has already been proposed by the Mission. However, the Mission has discussed its desire to have a long-term food security expert at post to guide planning and implementation of food security activities. DCHA/FFP will review such a request for funding from the Mission when its final strategy document comes to USAID/W for review and approval.

For the health side of the portfolio, the Team recommends that the Mission hire an experienced HIV/AIDS Team Leader who can coordinate well with the other sectors and SO teams. Since HIV/AIDS is an interwoven theme in all SOs, this individual must have the technical experience and flexibility to coordinate an integration of SO programs to face the growing challenge of HIV/AIDS in Zambia today.

For the Title II PL480 C-SAFE and other programs that might be developed, DCHA/FFP will assign a project officer to backstop these programs and provide technical assistance on a semi-annual basis.

### **Conflict Vulnerability Assessment**

Zambia is a country facing many political, social and economic issues, but none of these appear to be presenting such a challenge to the country as to cause serious conflict and upheaval. Zambians by and large are a peaceful people and the country has never been involved in war or violence during its history as an independent country. Democratic processes are active and despite the food security issues of the drought, the population is using coping mechanisms to get through a period of deprivation. The WFP and PVOs are providing a supportive pipeline of food aid to the most vulnerable. The Regional Conflict Mitigation Officer conducted a review of the situation in Zambia and found no justification for requiring a CVA with the Mission's country strategy. Consequently, the Mission, through AFR/SA requested a waiver of this requirement. This Team supports the Mission's position.