# ANNEX A

# STATEMENT OF WORK ANALYSIS OF FOOD SECURITY, HEALTH AND NUTRITION IN ZAMBIA

#### **BACKGROUND:**

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USAID/Zambia is currently developing its Country Strategy Plan (CSP) for FY 2004-2010. The CSP will include a number of strategic objectives covering several critical themes: increasing economic growth; building human capacity; improving health and addressing HIV/AIDS; and expanding democracy and governance. The Mission has submitted to USAID/Washington a Concept Paper incorporating input from stakeholders and sector assessments (Annex A). USAID/Zambia seeks assistance from the Africa Bureau, the Bureau for Global Health, OFDA and DCHA to explore the potential for utilizing P.L. 480 Title II food resources to address the immediate and long-term aspects of food security in a manner that would be integrated into the Country Strategic Plan. Two major, interrelated issues may undermine the success of the plan: food insecurity and malnutrition and the HIV/AIDS epidemic.

The suffering among Zambian families we observe today may not simply be a result of the drought conditions of the past two years. Drought occurs periodically in Zambia but the ability to cope with seasonal changes has diminished both at household level due to increased poverty, sickness, and the loss of productive labor; also too at the structural level as health systems collapse, surveillance systems falter, and emergency response mechanisms become overwhelmed. Additionally, the problem may be ascribed to regional political changes affecting governance and policy, food production, distribution, markets and availability. One of the major threats to agricultural production and food security in rural Zambia is the HIV/AIDS epidemic: in Zambia, 16percent of the population in the most productive years of life (ages 15-49) is HIV positive.

Although measures taken to stop the spread of HIV are having an impact in Zambia, the social and economic ramifications of the disease still impact families' and communities' vulnerability and ability to cope in times of food shortages. The proportion of households caring for orphaned children continues to increase. Youth-headed households grow steadily in both urban and rural areas. Increasingly, the burden of care of ill dependents and the production of food for households fall on older women and the young. Thousands of farm families afflicted by the AIDS virus have stopped planting traditional crops such as beans, which are high in protein, replacing them with less nutritious crops that are easier to produce. Many families are selling off their livestock, including draught animals used to prepare land for planting. Conversely, the drought situation in Zambia may contribute to the transmission of HIV/AIDS. The lack of food is forcing people, particularly young women, to take to prostitution as a coping mechanism for survival for themselves and their families.

Additionally, for a variety of factors that are only poorly understood, the nutritional status of Zambia children under 5 appears to be worsening. In the latest DHS, 47percent of children were stunted and nearly half of those were severely stunted indicating failure to receive adequate nutrition over an extended period and/or the effects of recurrent or chronic illness. Surprisingly, only 5percent of children were wasted. The highest percentage of wasting was seen among children aged 6-23 months – the period when children are being weaned and thus are more vulnerable to illness. These data, however, were collected almost a year ago and thus may not be an accurate reflection of current conditions.

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## **OPPORTUNITIES FOR A PROGRAMMATIC RESPONSE:**

In the new USAID/Zambia CSP nutrition and/or food security activities are incorporated into all strategic objectives. Under the Economic Growth/Agricultural SO (SO5) USAID will strengthen agricultural production, particularly of smallholder farmers, through conservation farming and use of labor-saving technologies for income generation and access to markets. The Education SO (SO6) addresses nutrition needs of schoolage children through school health programs. The Health SO (SO7) continues to expand micronutrient supplementation, food fortification, growth monitoring and breastfeeding/complementary feeding. An additional strategic objective – SO9 – focuses on HIV/AIDS prevention and mitigation through a multisectoral response. SO9 intends to address the short- and long-term needs (including food and nutrition) of people living with AIDS, their families and other vulnerable groups, especially orphans and vulnerable children.

## **PURPOSE:**

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USAID/Zambia seeks assistance from the Africa Bureau, DCHA Office of Food for Peace, EGAT, GH and OFDA to determine the mix of interventions the Mission should consider in the new CSP to address food and nutrition in the short-term in response to the current drought and in the long-term to address the development objectives of the new country strategy. Both need to be understood within the context of increasing poverty and high levels of HIV/AIDS.

Specific objectives:

- Identify and summarize key lessons learned from Zambia' prior experience with food and nutrition programs including responses to previous emergencies. Identify what is known and what is unknown, and what interventions can/should be undertaken with existing knowledge.
- 2. Identify the probable determinants of poor nutritional status of children under 5 in Zambia.
- 3. With these determinants in mind, review the activities proposed within the new CSP results framework to identify any major gaps in nutrition and food security programming that could compromise achieving further progress in child survival, maternal and reproductive health, and economic and agricultural development.
- 4. Determine if the Government of Zambia and/or another cooperating partner plans to address any gaps identified. Examine existing and potential synergy and coordination issues.
- 5. Propose options for activities and programming approaches to address these gaps. In particular:
  - Determine the feasibility of using P.L. 480 resources as one element to address food insecurity in Zambia to support vulnerable families with particular consideration to households headed by children and families/communities supporting orphans and vulnerable children.
  - Determine the feasibility of targeting such assistance within the Zambian context where poverty rates are high and a large proportion of families are impacted by HIV/AIDS. Make recommendations on targeting options and estimate numbers of households affected.
  - Determine the feasibility of various alternatives to providing food assistance, (e.g., food for work) in order to craft the most appropriate response to the current crisis, in particular the feasibility of using unemployed youth as a cadre of agricultural labor to support HIV/AIDS affected households and communities.

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- Consider the management burden on the Mission of various approaches and implications for staffing.
- Consider the feasibility of providing P.L. 480 assistance given the cost implications and the Government of Zambia's position on GMO food products.
- Identify key partners who would carry out activities.
- 6. Propose options for the design and management of a nutritional monitoring/surveillance system and indicators that could be used to measure the impact of intervention.
- 7. Determine the feasibility of cooperating partners (especially USAID, UNICEF, JICA) providing technical support staff to the National Food and Nutrition Commission to coordinate a more comprehensive approach to household food security and nutrition status.

#### **METHODOLOGY:**

A team of 3-4 people with expertise in nutrition in children under 5, management and design of P.L. 480 programs and food security, agricultural and economic development, and nutrition in the context of emergency situations will be identified to represent the points of view of Africa Bureau, GH, EGAT, OFDA and DCHA so that one coherent and integrated approach may be taken to inform the further development of the CSP.

Prior to departure to Zambia, the team will interview key individuals in the aforementioned Washington offices. The Mission, desk officer and country coordinator will develop this list and facilitate setting up these meetings. Upon arrival in Zambia the team will organize a 1-2 day meeting with key individuals in the Mission to review the Zambia Concept Paper and the new results framework. At this time, the objectives of the assessment will be reviewed and discussed and expectations clarified.

The Mission will provide the team with background documents and identify in-country key informants. The Mission will coordinate the team's schedule and in-country logistics this includes setting up meetings and arranging for field visits.

#### WORK AND REPORTING SCHEDULE:

The Assessment Team will undertake the study over a period of four weeks, per the following schedule:

Activity	Due Date
Commencement of study	01-08-03
Nutrition Expert meets USAID Mission Director and Task Management Team for	01-08-03
clarification of expectations and orientation	
Literature review and preliminary interaction with key contacts and informants	09-16 Jan
Arrival of the rest of the Assessment Team	09-16-03
Assessment Team meets USAID Mission Director and holds Planning Team	01-17-03
Meeting to include:	
Mission expectations (A. Reed)	
Food emergency update (FEWSNET/WFP)	
Agriculture/poverty update (FSRP)	
Nutrition review and report on first week (H. Sukin)	<u> </u>

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Mission Concept Paper (L. Mukumbuta)	ł
Review of Contacts List and field trip scheduling	
Assessment team confers on methodology, continues literature review, meetings with USAID project contacts as appropriate, drafting of Table of Contents	17-20 Jan
Assessment Team meets USAID/Zambia Team Leaders and other internal resources	01-21-03
Assessment Team meets Government contacts and other internal resources, on- going activity thereafter	01-22-03
Assessment Team submits draft Table of Contents to Program Office for clearance	01-22-03
Assessment Team undertakes field trips	22-23 Jan
Presentation of progress and findings by H. Suckin (materials due) and field trips continued	01-24-03
Assessment Team submits and presents draft report to the Mission for oral feedback	01-30-03
Assessment Team submits draft report to Program Office	02-03-03
Mission provides written feedback	01-05-03
Assessment Team debriefs USAID Mission Director on findings and recommendations of the assessment	02-07-03
Assessment Team submits final report to USAID/Zambia Program Officer	02-14-03

## **DELIVERABLES:**

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- 1. Draft Table of Contents for Food Security/Nutrition Assessment Report 01-22-03
- 2. 1 hardcopy of the draft 01-28-03
- 3. 1 hardcopy of the final report 02-07-03

Both the draft and final reports will be submitted to the Program Officer, or his designated representative, in electronic format as well.

# **TEAM COMPOSITION:**

The team shall be composed as follows:

1. Paul Novick DCHA/FFP - Team Leader

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- 2. Michelle Cachaper DCHA/FFP
- 3. Fenton Sands AFR/DP
- 4. Hope Sukin, AFR/DP

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## ANNEX B

# SELECTED DOCUMENTS REVIEWED

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# ANNEX C

# LIST OF PERSONS CONTACTED

Anglican Church Children's Project Felix Mwale, Program Director

Catholic Relief Services (CRS) Michele Foust Broemmelsiek, Country Representative

Changes Programme Edward P. Graybill, Director

Cooperative for Assistance and Relief Everywhere (CARE) Brenda Cupper, Country Director Kate Greenaway, Assistant Country Director Margaret McEwan, Health/Nutrition Researcher Teddy Mulenga, Program Officer Dorothy Khombe, Program Officer Nevel Orange, Program Officer, CARE Toronto Director of the Koloma Office Robby, Mwiinga, Director of the Livingstone Office Evans Mwengwe, CATER Program, Livingstone Office Farmer Cooperator, Kasungula Area, Food Security Project Miles Murray, Program Officer Waleed Rauf, Program Officer Community Relief Coordinators, Kasungula Area

Cooperative League of the USA (CLUSA) George Allison, Project Manager

**Creative Associates International** Edward Graybill

Department of International Development (DFID) UK Helen Meallins, Country Director Jane Barham, Humanitarian Specialist

European Union EU Joseph H. Green, First Counselor

Famine Early Warning System Network (FEWSNET) Chansa Mushinge, Country Representative

German Development Cooperation GTZ Martina Bergschneider, Country Director

HIV/AIDS Council Dr. Alex Simwanza, Director

Jon's Hospice John Imboela, Director

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Land O'Lakes, Inc. Tim K. Durgan, Country Coordinator

LINKAGES Ernest Muyunda, Noma Joni

Ministry of Health, Malawi John Chimumbwa, Health Officer

Michigan State University (MSU) J.J. Nijhoff, Project Coordinator Ballard Zulu, Research Specialist

MONO Guy Scott, Charlotte Harland

Mother of Mercy Chilanga Hospice Sister Leone

Netherlands Mission Bink Walsen, Agricultural Advisor

OXFAM Dr. Seshamani Patrick Mungaila

**Program Against Malnutrition** Dr. Nyirenda, Executive Director

Project Concern, International

Thomas Ventimiglia Lawrence Bryan, Fountain of Hope Project Director

Salesian Missions Mary Ellen Duke, Program Officer

SCOPE Ms. Chisense, Program Officer

UN Food and Agriculture Organization Lewis Bangwe, Deputy National Program Officer

UN Office for Coordination of Humanitarian Affairs Pat Duggan

UN World Food Programme Richard F. Ragan, Country Director Jorge Fanlo-Martin, Deputy Director David Rhody, Emergency Operations Coordinator Alfred Daka, VAM Unit Community Relief Coordinators, Kasungula Area

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UNICEF Tomoko Nishimoto Stella Goings Annie Sampa-Kamwendo Dr. Bhatt Florence N. Seketi

University Teaching Hospital Dr. Mary Shilalukey Ngoma

USAID / Zambia SO5, Helen Gunther, Cris Muyunda, Dann Griffiths, Hunter Neilson SO6, Kent Noel, Winnie Chilala SO7 Team Program Office, Kifle Negash, Likando Mukumbuta Director, Allan Reed

World Bank Alex Mwanakasale, Agriculture Specialist

Zambian Agricultural Commodity Agency (ZACA) Martin Hamusiya, Chief Warehouse Examinar

Zambian Central Board of Health Agnes Mugala-Aongola

Zambia – Choma Milk Collection Center Manager of Operations

Zambia Integrated Health Program Rose Lungu (nutritionist) Mike McGuire

Zambia - Lusaka University Teaching Hospital Dr. Bhatt Florence N. Seketi

Zambia – MOST Chipo Mwela

Zambian National Farmers Union (ZNFU) Songowayo Zyanbo, Executive Director

Zambian National Food and Nutrition Commission Freddie Mubanga

Zambia Network of PLWHA Augustine Chella

Zambian Office of the Vice President – Disaster Management and Mitigation J.L.K. Mwanza, National Coordinator

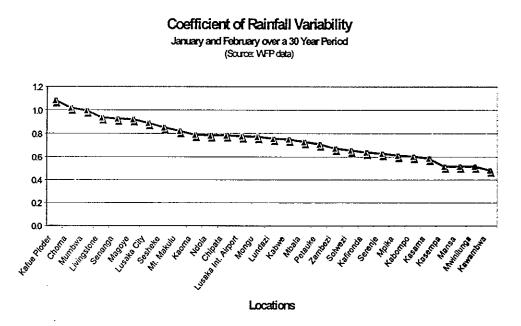
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# ANNEX D

#### Long-Term Rainfall Patterns and Impacts on the Zambian economy

Rainfall in Zambia is unimodal, commencing with light rains in December, gradually diminishing in February and March, and ending in April. District rainfall data collected over the last thirty years and disaggregated by month shows that rainy seasons have gradually been starting later and finishing earlier in Zambia, particularly in major maize producing districts. The trend of decreasing precipitation is quite apparent for February, March and April. Maize in Zambia is most vulnerable to moisture stress from January to March. Thus, low rainfall during these months can lead to crop failure even when the average annual rainfall is normal. This occurred during the 1991/92 growing season leading to the worst crop failures of the past fifty years. A similar pattern of erratic rainfall is reported in the current year.

The chart below illustrates this variability of rainfall. During the most critical months of January and February of each year when a major crop like maize needs good consistent moisture to mature properly. Three rainfall observation stations in the South (Choma, Livingstone, and Magoye) show some of the highest variability out of 30 stations around the country. Southern Province is particularly vulnerable to drought and considerable effort is required to encourage and support drought-resistant cereals. Livelihoods are particularly



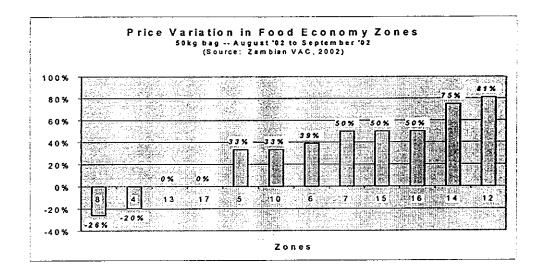
threatened in Southern Province due to drought, and the prospects of protection against this merit investigation. Western province has abundant natural resources but currently registers the highest poverty levels in the country. Donor support could be directed towards these provinces which have comparative advantages in livestock production, fisheries, commercial cashew nut production, and commercial rice production.

Another effect of the drought has been elevated levels and wide swings in food prices beyond what would normally occur. The graph below shows the extent of these price levels reflect the scarcity of food supplies in some areas – for example an 81 percent price increase for a 50 kg. bag of maize in the Western District (Zone 12) and 75 percent increase in the South (Zone

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14). High prices in the South demonstrate how some people had money but just could not find maize to buy.

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# ANNEX E

# What is different about this current 2002/03 drought situation compared to previous drought periods?

- There is a compounding effect of successive droughts on vulnerable households, which hasn't allowed them to recover and rebuild assets.
- Household coping systems are wearing out (but still working in many vulnerable households because malnutrition and wasting statistics are not as severe as originally expected at this late period in the hungry season).
- Decimation of livestock herds from drought and disease has taken away one of the best traditional sources of survival, especially in the South.
- The HIV/AIDS pandemic has significantly increased the number of vulnerable people. Illness and death has reduced productivity in the rural workforce, leaving farms neglected. The elderly, orphans, households headed by women, and households with disabled or ill members that do not receive community support or emergency relief are particularly vulnerable.
- FEWSNET early warning was particularly effective, prompting the shipment US food aid to the Southern African region well in advance of the depletion of local food supplies.
- The Zambian Government's opposition to donated US bio-tech food products severely disrupted the food aid pipeline. WFP was not able to source enough non-GMO grain in the Region to restore the pipeline to required levels. This was the first time that GMO food had become an issue, and serious thought will have to be given to the content of US food aid in the future.
- Zimbabwe was not a source of food exports this year -- a critical role it had played in previous droughts. The disasterous land reform and economic policies of the Mugabe regime has severely destabled the country's economy, creating a potentially long-term food supply problem in the that country.
- There is more analytical capacity available in the public sector, (e.g. in the Disaster Management Unit) but not sufficient to take a lead role in addressing future disasters.
- There is more sharing of information and consensus on the facts among those in government, the private sector, NGOs, etc.
- However, there is still too much dependence on the donor community for assessment of situations and responses.
- There was less cooperation between government and the private sector compared to the last drought – lack of government follow-through on relief food imports impeded traders from making timely commercial imports of needed maize and other foodstuffs.
- More information on cross-border trade is needed to have a more accurate picture of the food supply situation in the country during food deficit crisis periods.

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# ANNEX F

# **Considerations For SO5 Strategic Plan**

The common goals of most donor interventions are to reduce rural poverty and to ensure food security. To reach the goals the main areas of donor interventions are:

- Market linkages or facilitation programs which involve formation of farmer groups using any of the existing models, including out-grower models.
- Capacity building for farmer group members and the leaders.
- Entrepreneurship development so that farming can be treated as a business and improve non-farm incomes.
- Programs aimed at improving labor and land productivity, including Conservation Farming (CF) and conservation tillage (CT).
- Crop diversification programs that are aimed at increasing the chances of household food security and diversifying sources of household incomes. This includes introduction of new products such as essential oils.
- Programs aimed at strengthening private sector participation in the liberalised economy.
- Policy development and implementation either through support to institutions dealing with policy formulation and implementation or by participating in dialogue.

#### Lessons Learned

It is not usually appreciated in the design of projects or programs that a farmer pursues multiple livelihoods. A project, which focuses on one livelihood or commodity, will not meet the objectives of improving rural household incomes and reducing poverty.

There are several on-going activities in agriculture that have excellent prospects for generating significant results in improving household food security with limited resources. Multiple donors are involved in efforts to spread the use of CF and CT, including CARE International, CLUSA, World Vision International, Africare and ZATAC. This is an initiative that should continue until it reaches the "saturation" point, which the director of the Conservation Farming Unit (CFU) has estimated at 250,000 smallholder households.

<u>Conservation Farming</u>. The rational for promoting the spread of CF is straightforward. It is a proven approach that can help smallholder producers diversify their production and increase income. This approach also has positive food security implications. USAID should work in collaboration with other donors supporting the dissemination of CF to reach the assumed saturation level of 250,000 farm families across the country. One important aspect CF may not be considered particularly HIV/AIDS friendly as the initial labor requirements for CF are substantial. Digging over 15,000 holes per hectare is demanding. However, the labor requirement for field preparation diminishes overtime, and can be carried out over the sixmonth dry season, when there are fewer demands for their labor. In addition, use of the weed wipe significantly reduces labor required for weeding. USAID, through its partners and the Zambian Network of Persons Living with HIV/AIDS, might hold some focus groups to identify potential interventions to mitigate the difficulties for families affected by HIV/AIDS and/or PLWHA to adopt CF.

<u>Crop Diversification</u>. A major theme running through the agricultural sector is to distance the country from its near monoculture past and use its comparative advantages in land availability and water resources to diversify the product line. Cassava, in particular, has many ardent supporters, although is not without controversy. Cassava served as a food security crop in

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colonial times. It therefore has the potential to play an important food security role. Cassava also is an industrial crop. It is a raw material for starch. Nutritionally, the crop is controversial; some nutritionists worry that that as a food crop cassava is only "empty" calories. USAID could play an instrumental role helping the GRZ organize a national debate on the advantages and disadvantages of cassava, eventually leading to a national cassava development strategy and plan. The Southern African Regional Research Network (SARRNET), which works with USAID's Regional Center for Southern Africa (RCSA), has an on-going cassava program and could offer valuable input into the debate.

<u>Dairy</u>. Dairy activities provide smallholders a ready opportunity to increase household income as well as contribute to improve food security. In addition, a dairy development program can play an important role in helping rebuild the livestock herd, which has been decimated by disease. Longer term there may be the potential to introduce a school milk program, which also would address positively food security concerns.

#### Food Security

USAID has several comparative advantages in addressing food security issues. Such attributes as responsiveness, access to different funding mechanisms, the ability to employ a multi-sectoral approach, and the willingness to work with local partners. Disadvantages included the lack of willingness to pool resources and a propensity to set up parallel structures, which can create conflict at the field level. Through FEWSNET and the FSRP, USAID/Zambia is supporting unique activities that make important contributions. Food security is an important cross-cutting issue and one where USAID has the capability to make significant contributions.

The work that USAID and other donors are supporting to introduce and expand the use of CF techniques has the potential to have a significant impact on the maize, soybean and cotton sub-sectors and affect a significant number of smallholder households. Also, identifying ways in which households affected by HIV/AIDS can benefit from CF – through communal land preparation or use of alternative technologies that decrease the labor burden – could have important impacts on poverty. Investment in the dairy industry can play a crucial role in helping to rebuild the livestock herd that has been decimated by disease. Cassava has the potential to fill a dual role as both food security and industrial crop. USAID's efforts in floriculture and horticulture have been impressive and should continue, although the employment and incomes impact of these sectors is considerably less than cotton and maize. The same may be said for coffee.

The geographic focus of USAID's activities in agriculture will, in large part, be a function of the commodity choices and the particular farming systems of each region. Interventions in the South, for example, will require special attention to the on-going cyclical droughts and limited number of livelihood improvement alternatives in that area.

#### Recommendations

There is scope to include activities that more directly address food availability, as well as the access, which is the main emphasis of the proposed SO-5 strategy. The review of the food security angle to the Economic Growth program concurs with the recommendation of the September 2002 "Assessment Of Zambia's Private Sector, Agriculture & Natural Resources Sectors" that first and foremost the Economic Growth SO Team continue to emphasize activities to expand use of CF and CT approaches, with the recognition that this is a short-term, but quick response initiative. It is reasonable to expect reaching the estimated "saturation" point of 250,000 smallholder households within three years. Given that it

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supports several NGOs which incorporate CF and CT as part of their programs, USAID is well positioned to take the lead in making sure that all the donors supporting CF and CT collaborate and cooperate. The sharing of lessons learned can be invaluable.

The dairy sub-sector deserves special attention and USAID is well positioned to build on the Land O'Lakes-led Zambia Dairy Enterprise Initiative. Again, this is a relative short-term activity to respond to forecast pent up demand for fluid milk and to develop dairy's export potential.

The country's farmers will have to produce more crops and livestock if agriculture is to become as the engine of growth. Many observers believe and have seen that the rapid adoption of conservation farming and conservation tillage techniques can lead to a significant supply response. Therefore, tracking the number of smallholder households employing CF and CT approaches remains an important indicator. As noted earlier, the director of the Conservation Farming Unit has estimated the saturation point for these techniques is on the order of 250,000 of the country's 800,000 smallholder households. The current SO 1 Team already has in place a reporting system to capture the number of households using CF and CT in activities implemented by USAID-funded grantees and contractors. It is recommended that the multiple donors supporting CF initiatives collaborate to pool their data on dissemination and adaptation to track the overall progress towards a target like the possible 250,000 households.

It is important to monitor the income effect that adaptation of improved technologies and enhanced marketing opportunities is having on smallholder households. This current review of SO-5's proposed Results Framework would benefit from an indicator that adds the "availability" dimension to USAID's cross-cutting work on food security. Perhaps food utilization is more the purview of USAID's HPN team and SO-5 can focus on food access and food availability. But, it is important that these two ends of the food security spectrum be woven in with nutrition. The "Assessment Of Zambia's Private Sector, Agriculture & Natural Resources Sectors" made some good suggestions about an indicator to capture the food availability dimensions – such as monitoring increased production levels of selected staple and food crops in target areas. In addition, their suggestion of including an aspect of smallholder production of staple crops at the IR level also deserves consideration to add further emphasis to food security in the SO-5 program.