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USAID OFFICE OF FOOD FOR PEACE
BURKINA FASO FOOD SECURITY
COUNTRY FRAMEWORK FY 2010-2014

OCTOBER 2009



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ACRONYMS

ACF	Action Contre le Faim (Action Against Hunger)
AIDS	Acquired immune deficiency syndrome
BCC	Behavior change communication
BMI	Body mass index
CAADP	Comprehensive Africa Agriculture Development Programme
CBO	Community-based organization
CCPDR	Cadre de Concertation des Partenaires du Développement Rural (Coordination Framework for Partners in Rural Development)
CDC	Centers for Disease Control and Prevention
CED	Chronic energy deficiency
CILSS	Comité Permanent Inter-Etats du lutte contre la Sécheresse dans le Sahel (Inter-State Standing Committee on the Fight Against Drought in the Sahel)
C-IMCI	Community integrated management of childhood illness
CMAM	Community-based management of acute malnutrition
CNC	Cereal needs coverage
CNCN	Conseil National de la Concertation de la Nutrition (National Council for Nutrition Coordination)
CNSA	Conseil National de la Sécurité Alimentaire (National Council for Food Security)
COGEST	Village management committee
CONASUR	Comité National de Secours d'Urgence et de Réhabilitation
CP	Cereal poverty
CPSA	Coordination de Politiques Sectorielles Agricoles (Agricultural Sector Policies Coordinator)
CRS	Catholic Relief Services
CSLP	Le Cadre Stratégique de Lutte Contre la Pauvreté (Poverty Reduction Strategy Paper)
CSO	Civil society organization
CSSA	Cadre Stratégique de Sécurité Alimentaire Durable dans une Perspective du Lutte contre la Pauvreté au Sahel (Strategic Framework for Sustainable Food Security)
DAP	Title II Development Assistance Program
DHS	Demographic and Health Surveys
DGPER	Direction Générale de la Promotion de l'Economie Rural (General Directorate for Promotion of the Rural Economy)
DGPSA	Direction Générale des Prévisions et des Statistiques Agricoles (General Directorate for Forecasting and Agricultural Statistics)
DN	Direction de la Nutrition (Nutrition Directorate)
EC	European Commission
ECHO	European Commission's Humanitarian Aid Office

ECOWAP	Regional Agricultural Policy for West Africa
ECOWAS	Economic Community of West African States
ENA	Essential Nutrition Actions
ENC	Enquête Nutritionnelle Complémentaire (Complementary Nutrition Survey)
ENIAM	Enquête Nationale sur l'Insécurité Alimentaire et la Malnutrition (National Survey on Food Security and Malnutrition)
EPA	Enquête Permanent Agricole (Permanent Agricultural Survey)
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FEWS NET	Famine Early Warning Systems Network
FFE	Food for Education
FFP	USAID Office of Food for Peace
FFPIB	Food for Peace Information Bulletin
FHH	Female-headed households
FSCF	Food Security Country Framework
GDP	Gross domestic product
GMP	Growth monitoring and promotion
GOBF	Government of Burkina Faso
GRET	Groupe de Recherche et d'Echanges Technologiques (Group for Research and Technology Exchange)
Ha	Hectare(s)
HFA	Height-for-age
HIV	Human immunodeficiency virus
HFIAS	Household Food Insecurity Assessment Scale
HKI	Helen Keller International
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFPRI	International Food Policy Research Institute
IGA	Income-generating activity
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
INERA	Institut de l'Environnement et de Recherches Agricoles (Environment and Agricultural Research Institute)
IR	Intermediate result
IRD	L'Institut de Recherche pour le Développement (Institute of Research for Development)
ITN	Insecticide-treated net
IYCF	Infant and young child feeding
MAHRH	Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques (Ministry of Agriculture)
MAM	Moderate acute malnutrition
MASSN	Ministère d'Action Sociale et la Solidarité Nationale (Ministry of Social Action and National Solidarity)

MCC	Millennium Challenge Corporation
MCHN	Maternal and child health and nutrition
MDG	Millennium Development Goal
MEBA	Ministère de l'Éducation de Base et de l'Alphabétisation (Ministry of Basic Education and Literacy)
mm	Millimeter(s)
MOH	Ministry of Health
MT	Metric ton(s)
MSF	Médecins sans Frontières
MUAC	Mid-upper arm circumference
MYAP	Multi-year assistance program
NCHS	National Center for Health Statistics
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental organization
NNP	National Nutrition Policy
NTD	Neglected Tropical Diseases Initiative
NUSAPPS	Nutrition, Sécurité Alimentaire et Politiques Publiques au Sahel (Nutrition, Food Security and Public Policy in the Sahel)
OFDA	USAID Office of Foreign Disaster Assistance
OR	Operations research
PA-SISA	Plan d'Action pour la Système d'Information sur la Sécurité Alimentaire (Plan of Action for the Food Security Information System)
PAGIFS	Plan d'Actions de la Gestion Intégrée de la Fertilité des Sols (Plan of Action for Integrated Soil Fertility Management)
PAGIRE	Plan d'Action pour la Gestion Intégrée des Ressources en Eau (Plan of Action for Integrated Management of Water Resources)
PAPISE	Plan d'Actions et Programme d'Investissement du Secteur de l'Élevage au Burkina Faso (Action Plan and Program for Investment in Livestock Sector of Burkina Faso)
PCN	Plan de Communication en Nutrition (Nutrition Communication Plan)
PDAV	Programme de Développement de l'Aviculture Villageoise (Program for Development of Village Aviculture)
PEPFAR	United States President's Emergency Plan for AIDS Relief
PHNP	La Politique Nationale en Matière d'Hygiène Publique (National Policy on Public Hygiene)
PLHIV	People living with HIV
PM2A	Prevention of Malnutrition in Children Under 2 Approach
PMI	United States President's Malaria Initiative
PMP	Performance Management Plan
PMTCT	Prevention of mother-to-child transmission of HIV
PNOCSUR	Plan National d'Organisation et de Coordination des Secours d'Urgence et de Réhabilitation (National Plan for Organization and Coordination of Emergency and Rehabilitation Assistance)
PRSP	Poverty Reduction Strategy Paper
SAM	Severe acute malnutrition

SAP	Système d'Alerte Précoce (Early Warning System)
SD	Standard deviation(s)
SDR	La Stratégie de Développement Rural a l'Horizon 2015 (Rural Development Strategy to 2015)
SIM	Système d'Information sur les Marchés (Market Information System)
SIMb	Système d'Information sur les Marchés de Betail (Livestock Market Information System)
SNGIFS	Strategie Nationale de Gestion Intégrée de la Fertilité des Sols (National Strategy for Integrated Soil Fertility Management)
SO	Strategic objective
SONAGESS	Société Nationale de Gestion du Stock de Sécurité Alimentaire (National Society for Food Security Stock Management)
SOSAR	Stratégie Opérationnelle de Sécurité Alimentaire Régionale (Operational Strategy for Regional Food Security)
SNSA	Stratégie National de Sécurité Alimentaire (National Food Security Strategy)
TdH	Terre des Hommes
THR	Take-home rations
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development
USD	United States dollar
USG	United States Government
WAEMU	West African Economic and Monetary Union
WFA	Weight-for-age
WFH	Weight-for-height
WFP	World Food Programme
WHO	World Health Organization
ZFSI II	Zondoma Food Security Initiative II

EXECUTIVE SUMMARY

The purpose of the United States Agency for International Development (USAID) Office of Food for Peace (FFP) Food Security Country Framework (FSCF) for Burkina Faso is to provide programming guidance to current and potential USAID food security partners on the development of Title II-funded multi-year assistance programs (MYAPs) for the period 2010-2014 in Burkina Faso, and to improve program and resource integration.

Despite achievements in economic growth and poverty reduction in the last decade, Burkina Faso remains one of the poorest countries in the world. Almost half (47 percent) of rural households live in poverty. The global economic crisis is undermining poverty reduction and widening income inequality. Chronic food insecurity and chronic malnutrition are endemic. Around four in 10 children under 5 are stunted. Malnutrition (chronic energy deficiency [CED]) is common in women, and women in particular face many challenges in improving the livelihoods, health and well-being of themselves and their families. The Government of Burkina Faso (GOBF) has developed a range of sound policies and plans of action to promote development, food security and gender¹ equity,² but national capacity and funding for implementation is a significant challenge.

Smallholder farmers in Burkina Faso face a number of constraints to production and food availability:

- Limited, erratic and declining rainfall, particularly in northern Burkina Faso
- Soil degradation and insufficient use of soil conservation techniques
- Limited access to credit/finance, inputs and improved seeds
- Poor post-harvest storage techniques

Rural households also face constraints to accessing sufficient food, including:

- Poor access of smallholder farmers, especially women, to markets
- Failures at several links of the agriculture value chain
- Limited off-farm income-earning opportunities
- Lack of access to credit and working capital

Food utilization among rural households is compromised by:

- Poor access to potable water and improved sanitation and poor hygiene practices
- High rates of childhood illness and low access to preventive and curative care services

¹ **Gender** refers to the **social constructs** that define men and women's roles and how they are socialized. **Sex** refers to the **biological** difference between men and women.

² **Gender equity** considers the differences in women and men's lives and recognizes that different approaches may be needed to produce equitable outcomes. (**Gender equality** refers to women and men being treated the same way. However, equal treatment will not produce equitable results, because women and men have different life experiences).

- Inappropriate care and infant and young child feeding (IYCF) practices

The Title II program can contribute to addressing the set of constraints outlined above by striving **to reduce food insecurity among chronically food insecure people in Burkina Faso**. The priority geographic areas are the regions of Nord, Centre-Nord, Plateau Central, Sahel and (northern) Est.

Desired outcomes would include:

- Improved and diversified production and productivity (including rain-fed crops, market gardening and livestock)
- Increased and diversified household incomes
- Enhanced health and nutrition status, particularly in children under 2 and pregnant and lactating women

Box I outlines some of the priority programs and priority activities, which are described in more detail in **Section 6**. The FSCF aims to identify the broad objectives and types of programs that should be conducted, but it is the responsibility of each Awardee to prioritize, identify and design specific project activities based on their local assessment.

To effectively design and implement such an approach, the FSCF recommends incorporating key design considerations, which are described in detail in **Section 6**, including:

- Geographic targeting to most chronically food insecure regions including Nord, Centre-Nord, Plateau Central, Sahel and (northern) Est
- Targeting the households and individuals most affected by chronic food insecurity and chronic malnutrition, including female-headed households (FHH), poor and labor-poor households, pregnant and lactating women and adolescents, and children under 5 (with an emphasis on children under 2)
- Balancing food and cash resources as program inputs
- Developing integrated, holistic programs that capitalize on synergies among program components to enhance impact and address the multiple causes of chronic malnutrition in the Burkina Faso context
- Ensuring gender is integrated throughout program design, implementation and monitoring and evaluation
- Taking a predominantly preventive approach to HIV
- Applying formative research to effectively promote behavior change
- Incorporating operations research to improve program design
- Anticipating emergencies through program design, monitoring and evaluation and preparedness
- Planning for sustainability and exit strategies from the outset

BOX I. PRIORITY OUTCOMES AND ACTIVITIES FOR THE BURKINA FASO TITLE II PROGRAM

The Title II program should prioritize activities expected to:

- Strengthen and diversify agricultural production and productivity by:
 - Transforming smallholder agriculture from subsistence cereal farming to integrated food and cash crop production
 - Strengthening integration of livestock and poultry ownership in smallholder production
 - Enhancing use of improved natural resource management techniques
- Increase and diversify household incomes by:
 - Expanding market gardening at community and household levels
 - Strengthening producers' capacity to market produce and livestock
 - Expanding access to finance for smallholder households through microcredit, income-generating activities and complementary services
 - Expanding women and adolescent girls' literacy and livelihood capacity
- Reduce chronic malnutrition among children under 5 and pregnant and lactating women by:
 - Preventing malnutrition among children under two
 - Improving IYCF practices, especially exclusive breastfeeding
 - Expanding prevention and treatment of childhood illness
 - Enhancing access to water and sanitation, and improving hygiene practices
 - Improving maternal nutrition
 - Linking with programs focused on the management of acutely malnourished children
 - Increasing dietary diversity and quality through home gardens and small livestock programs

Because Title II programs should aim to improve both nutritional status and household food access in targeted communities, the ultimate impact indicators for the Title II program should include the prevalence of stunting (6-59 months), prevalence of underweight (children 0-59 months), months of adequate household food provisioning and household dietary diversity score.

I. OBJECTIVES OF THE COUNTRY FRAMEWORK

The purpose of the United States Agency for International Development (USAID) Food Security Country Framework (FSCF) for Burkina Faso is to provide programming guidance to current and potential USAID food security partners on the development of Title II-funded multi-year assistance programs (MYAPs) for the period 2010-2014 in Burkina Faso, and to improve program and resource integration.

The FSCF identifies the key factors contributing to food insecurity and vulnerabilities in Burkina Faso, using the USAID definition of food security. The FSCF aims to summarize the current food security situation in the country, identify who the food insecure are and where they are located, explain why they are food insecure, and identify the actions necessary to reduce their food insecurity. The FSCF also describes the institutional context in which the Burkina Faso Title II program will be implemented, in terms of existing strategies and programs of the United States Government (USG), Government of Burkina Faso (GOBF), nongovernmental organizations (NGOs) currently operating in Burkina Faso and other key food security stakeholders.

The audience for this country framework is current and prospective Title II Awardees, NGOs, institutions, donors, GOBF entities working in food security in Burkina Faso and USAID staff in West Africa and Washington. The Burkina Faso FSCF is based on a review of the literature and current data on food insecurity in Burkina Faso, field visits to USAID/FFP Awardee projects and key informant interviews with staff from USAID/West Africa, USAID/Washington, the GOBF, NGOs and other institutions that are stakeholders in food security programming in the country. The FSCF aims to identify the broad objectives and types of programs that should be conducted, but it is the responsibility of each Awardee to prioritize, identify and design specific project activities based on their local assessment.

2. DEFINITION OF FOOD SECURITY

In 1992, USAID's Policy Determination 19 established the following definition for food security: "Food security exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life."³ The definition focuses on three distinct but interrelated elements, all three of which are essential to achieving food security:

- **Food availability:** having sufficient quantities of food from household production, other domestic output, commercial imports or food assistance
- **Food access:** having adequate resources to obtain appropriate foods for a nutritious diet, which depends on available income, distribution of income in the household and food prices

³ USAID 1992.

- **Food utilization:** proper biological use of food, requiring a diet with sufficient energy and essential nutrients, potable water and adequate sanitation, as well as knowledge of food storage, processing, basic nutrition and child care and illness management

This document uses the above definition of food security, with the addition of the concepts of risk and vulnerability,⁴ as a framework to describe the context and determinants of food insecurity in Burkina Faso, and the programmatic actions necessary to reduce food insecurity in the country.

3. OVERVIEW OF THE FOOD SECURITY CONTEXT IN BURKINA FASO

Burkina Faso has achieved notable successes in fostering economic growth in recent years. However, considerable challenges in reducing chronic food insecurity and poverty remain.

Encouraging trends in economic growth. Macroeconomic trends for Burkina Faso's estimated 15 million citizens offer reasons for optimism as well as concern (**Table I**). Despite ranking as one of the world's least developed countries, Burkina Faso's real gross domestic product (GDP) increased by an average of 5.6 percent annually from 1994-2004,⁵ although the global economic recession is forecasted to bring down the GDP growth rate in 2009, and a rate of over 6 percent is required to significantly reduce poverty (a Millennium Development Goal [MDG]).⁶ Burkina Faso's relatively undiversified economy is vulnerable to a number of external shocks, including declining international cotton prices, regional locust infestations, effects of regional civil instability and the effects of the global financial crisis on remittance income from Burkinabe who live abroad.⁷

Progress in reducing poverty, especially rural poverty. The national poverty prevalence (measured against the national poverty line) declined from 46 percent to 41 percent from 2003 to 2006 (52 percent to 47 percent in rural areas and 20 percent to 16 percent in urban areas).⁸ Rural poverty alleviation efforts are expected to reduce rural to urban migration and bolster resource transfers between rural and urban households.⁹ Unfortunately, by 2008, the modest economic growth was accompanied by increasing income inequality and not by poverty reduction. The global financial crisis will further challenge poverty reduction efforts.

⁴ The concept of risk, which is implicit in the USAID definition of food security, was added to the conceptual framework that underlies the FFP Strategic Plan for 2006-1010 as a fourth pillar. The concept of vulnerability is also addressed in the FFP Strategic Plan in the sense that food security can be lost as well as gained and is defined as the inability to manage risk. USAID/FFP 2005.

⁵ World Bank 2005.

⁶ IMF 2009.

⁷ World Bank 2005.

⁸ GOBF/MEF 2007.

⁹ See Section 5 for a summary of policies and programs of the GOBF and other institutions in Burkina Faso.

Very low literacy and school attendance rates. Only 30 percent of men and 11 percent of women are literate (**Table I**). Overall and in each region, boys' rates of school attendance are higher compared to girls' rates. (See **Annex 4F** for data on literacy and participation in school by region and sex.) The low levels of literacy and the sex disparity in education are relevant to food security. Research suggests that for girls, education increases their economic productivity, improves their health, delays their age at marriage, lowers their total fertility, increases their political participation and improves the nutritional status and health outcomes of their children.

Political and economic decentralization and reform. Burkina Faso offers relative political stability, governance reform efforts and participation in regional frameworks that strengthen political and economic governance.¹⁰ The GOBF has made enormous strides in establishing economic policy and regulatory frameworks to generate long-term economic growth. Burkina Faso entered into a 480 million United States dollar (USD) compact with the Millennium Challenge Corporation (MCC) in 2008. Decentralization is an important component of the political landscape, and increasingly partnership and capacity strengthening at regional level (and below) are indispensable to planning and program implementation.

Considerable advances in GOBF commitment to nutrition and food security, but room for improvement in capacity and coordination. Although many GOBF ministries play a role in national development efforts, two are most engaged in food security and nutrition: the Ministry of Health including the Directorate of Nutrition (Ministère de la Santé, Direction de la Nutrition [MOH/DN]), and the Ministry of Agriculture (Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques [MAHRH]).¹¹ In the MAHRH, the most important focal point is the General Directorate for the Promotion of the Rural Economy (Direction Generale de la Promotion de l'Economie Rural [DGPER]; formerly DGPSA). United Nations (UN) agencies and the World Bank have effectively advocated for nutrition to the highest levels of government, and committed significant resources for nutrition policy and programs. However, coordination among these agencies and their partners in nutrition-related data collection, planning, program implementation and program monitoring and evaluation remains a challenge.

Growth of civil society organizations (CSOs), but capacity issues remain a major constraint. CSOs in Burkina Faso, although numerous, are generally weak due to lack of institutional capacity and funding constraints. CSOs were actively consulted

¹⁰ Examples include the Structural Adjustment Program, the West African Economic and Monetary Union (WAEMU), and the Comprehensive Africa Agriculture Development Programme (CAADP).

¹¹ Other Ministries engaged in food security include: the Ministry of Social Action and National Solidarity (Ministère d'Action Sociale et la Solidarité Nationale [MASSN]), and within that institution, the National Committee for Emergency and Rehabilitation Assistance (Comité National de Secours d'Urgence et de Réhabilitation [CONASUR]); the Ministry of Basic Education and Literacy (Ministère d'Education de Base et Alphabétisation [MEBA]); and the National Society for Management of Food Security Stocks (Société Nationale de Gestion du Stock de Sécurité Alimentaire [SONAGESS]).

during the drafting of key national development strategies.¹² However, CSOs' ability to hold government accountable to the population has been less successful. Women and youth are poorly represented in CSOs, particularly in decision-making posts. This is due in part to widespread gender inequity, particularly women's low education and literacy rates, and social constraints on their control of income and resources.

Underdeveloped agriculture sector. Although it employs an overwhelming 90 percent of the population, the largely rain-fed agriculture sector only contributes 33 percent of Burkina Faso's GDP.¹³ The average annual increase in agricultural productivity (yields) from 1992-2005 was small for sorghum and millet (2.0 percent and 2.8 percent respectively), and negligible for maize (0.5 percent per year). The cotton sector, the country's largest generator of export earnings and foreign exchange and driver of Burkina's economic growth in recent years, faces declining world prices, the need for higher-yielding seeds and modernized production techniques, and inadequate management and price policies. Irrigation and mechanized agriculture are concentrated in managed areas, such as Banfora, the Vallée du Sourou and Bagré perimeters. Value Added in the Burkina Faso agricultural sector is very limited. Most agricultural production units are individual households, rather than formal businesses. The main constraints facing small-scale producers include lack of access to inputs and credit, low utilization of improved agricultural techniques to augment production and protect soil fertility, lack of arable land and labor constraints. The livestock sector is similarly underdeveloped, with poor households generally owning only poultry.

Underdeveloped land, labor and credit markets. The GOBF has embarked on a much needed land reform process. To date, customary land tenure dictates that land is managed by community elders; land is allocated by these elders to men in their communities. Women cannot own land and can only access land through marriage or with the influence and permission of male family members.¹⁴ However, draft laws anticipated for approval in 2009 emphasize promotion of access to land by women, ensuring smallholder land rights, establishing local governance structures to oversee the law, and sensitization of rural residents to their rights to land under the law.¹⁵ The local labor market is poorly developed. The migration of Burkinabe to Côte d'Ivoire and other countries in the region has been hampered by civil unrest at those destinations, boosting the less profitable and more uncertain internal migration to Burkina's urban centers. Permanent reductions in chronic food insecurity (locally termed *insécurité alimentaire structurelle*) require the development of markets for credit (including for smallholders), land and on-farm labor opportunities. Although microfinance institutions exist in Burkina Faso, products are designed for large entrepreneurs rather than low-income rural smallholders.

¹² The Rural Development Strategy identifies five as key national partners: Fédération Nationale des Jeunes Professionnels Agricoles du Faso, Fédération des Professionnels Agricoles du Burkina, l'Union Nationale des Producteurs de Coton du Burkina, Fédération Nationale des Femmes Rurales du Burkina, and Fédération des Eleveurs du Burkina. GOBF 2004.

¹³ GOBF/MAHRH/DGPSA 2008c.

¹⁴ Ki-Zerbo 2004.

¹⁵ Ouédraogo 2009.

High vulnerability to the effects of desertification, land degradation and climate change. In this semiarid Sudano-Sahel zone, nutrient-poor laterite soils are covered with sand and topsoil that are eroded easily by wind and flooding. These trends are further aggravated by land clearing for crop production, firewood collection, grazing livestock on fields after harvest, and limited use of inputs and fallow periods. The most frequent external shock to food security, drought reduces local production and increases demand throughout the region for Burkina production. Climate change, land degradation and desertification are very important issues in Burkina Faso, where increasing inter-annual variability in rainfall and a longer-term reduction in annual rainfall have been documented. Land degradation is especially aggravated in densely populated agricultural areas, including Nord and Plateau Central regions.

Key health indicators. Life expectancy at birth is only 48 years (**Table I**). The infant mortality rate is high (81 per 1,000 live births). Almost one of five children dies before her fifth birthday (under 5 mortality rate of 192 per 1,000 live births) – and the risk in rural areas is almost 50 percent higher than urban (202 versus 136 per 1,000 live births). The main causes of death in children under 5 are pneumonia (23 percent), malaria (20 percent), diarrheal diseases (19 percent) and neonatal causes (8 percent). According to the 2003 Demographic and Health Surveys (DHS), over 30 percent of children 6-23 months had diarrhea during the two weeks preceding the survey. In Burkina Faso, the use of insecticide treated nets is low with only 7 percent of children under 5 sleeping under insecticide treated nets.¹⁶ Results from a national 2008 study indicate that 38 percent of children under 5 are stunted and 27 percent are underweight. Maternal mortality is high (700 maternal deaths per 100,000 live births). Maternal mortality rates are at least doubled for adolescents 15 to 19 years. A recent maternal mortality study in two rural districts of southeastern Burkina Faso found that poverty and distance to health facility were both associated with higher levels of maternal mortality.¹⁷ HIV prevalence in Burkina Faso is 1.4-1.9 percent at national level. The prevalence of HIV among pregnant women is 2 percent.¹⁸ HIV disproportionately affects urban and young women (aged 15-24 years).

Access to health services. The health system in Burkina Faso is decentralized, with thirteen health regions and three to six health districts in each. The National Health Plan (2001-2010) prioritizes developing and equipping health facilities, strengthening the capacity of health district staff and providing community health services. As in other sectors, however, decentralization has not ensured availability or quality of services at regional or provincial levels, given funding and capacity constraints. Although urban areas have greater access to public and private health services, only 20 percent of the population lives in urban areas. Women's participation in prenatal care is low, with 30 percent of rural women reporting no prenatal care and only 18 percent of women

¹⁶ DHS 2003.

¹⁷ Bell et al 2008.

¹⁸ The number of adults with HIV is estimated between 100,000 and 140,000 with 52,000 to 73,000 women infected and an estimated 8,000 pregnant women. The number of orphans due to AIDS is estimated between 62,000 and 130,000. WHO, UNAIDS and UNICEF 2008.

nationally attending four or more visits. Health care coverage for common communicable diseases in children is alarming: half (48 percent) of children under 5 received antimalarial treatment for fever, a third (36 percent) of children were taken to a health facility when they had acute respiratory infection symptoms, and two thirds (63 percent) of children received oral rehydration therapy during diarrhea.

Water and sanitation. Seventy-one percent of households nationally are estimated to have access to potable water, but only 38 percent have access to improved sanitation, and fecal-oral transmission of infectious disease is common.¹⁹ Urban areas provide increased access to potable water and improved sanitation.

Gender²⁰ inequity,²¹ livelihoods and influence. Burkina Faso ranks 121st out of 156 countries according to the Gender Development Index (**Table I**). Despite the establishment of the Ministry for the Promotion of Women and the National Policy for Promotion of Women, women's political representation and influence remains a significant challenge. Women are constrained in terms of access to land, control of production, decision making on use of assets (e.g., livestock) and control over household income. In general, income earned from profitable activities (e.g., cotton farming) is managed by men. Less profitable activities (e.g., millet production) may be under female control or may be under male control with substantial female labor contribution. Adolescents have the least decision making influence of all women: the younger the married woman is, the less she is able to participate in household decisions, such as accessing health care or making important or routine household purchases. Although women's economic power is limited in the household, some agencies have found that doing food security projects with women's groups can change the dynamic and expand women's control over the generation and expenditure of resources. Nearly 90 percent of women who work outside the home decide themselves how to spend their income; this figure varies little by socio-demographic group.²² Of women who work outside the home, a third contributes at least half of the total household income.

Marriage, fertility and the higher risks for adolescent girls. Early marriage of girls during adolescence is a common social practice, particularly in rural areas. An estimated 52 percent of women are married by the age of 18 and the median age of marriage is 17.7 years (see **Table I** and **Annex 4E** for regional data).²³ Over one quarter of rural adolescent girls (28 percent) have been pregnant or given birth. Young maternal age at first birth is associated with shorter inter-pregnancy intervals, poor pregnancy outcomes and increased risk of long-term malnutrition for the mother. In

¹⁹ GOBF 200x.

²⁰ **Gender** refers to the **social constructs** that define men and women's roles and how they are socialized. **Sex** refers to the **biological** difference between men and women.

²¹ **Gender equity** considers the differences in women and men's lives and recognizes that different approaches may be needed to produce outcomes that are equitable. (**Gender equality** refers to women and men being treated the same way. However, equal treatment will not produce equitable results, because women and men have different life experiences).

²² GOBF/MED/INSD and ORC Macro 2003.

²³ GOBF/MED/INSD and ORC Macro 2003.

Burkina Faso the fertility rate is high at 6.2 (6.9 for rural, 3.1 to 4.4 for urban) and contraceptive use is under 15 percent.²⁴ (See **Annex 4D** for regional data on inter-pregnancy intervals and fertility rates.) As expected, there is much higher use of contraceptives in urban (28 percent) compared to rural areas (4 percent). Early and more frequent pregnancies, compounded by the nutritional demands of breastfeeding, can deplete women's nutrient stores. Adolescent girls are at higher risk for chronic energy deficiency [CED];²⁵ 25 percent of girls between 15 and 19 years have CED compared to 18 percent of women between 15 to 49 years²⁶. Married adolescents are more apt to be involved in polygamous unions. More than one-third of married adolescents are second or third wives in polygamous unions with older men, and polygamy is most common in rural areas and households with less education (Table 3).²⁷ Half (51.9 percent) of rural women are in polygamous marriages compared to about one quarter (28.1 percent) of urban women. Married Burkinabe girls and women resides with their husband, his parents, and his other spouses (if there are any), and sometimes extended family members. The husband's mother frequently has considerable influence in assigning daily tasks, providing information and advice (including on diet and infant and young child feeding [IYCF]), managing the care of the adolescent during pregnancy and managing conflict between the couple. Mobility of married adolescent girls is restricted, which limits their health care access.

Violence against women and girls. One-third (34 percent) of women report having suffered violence during the previous 12 months and 31 percent of men (married and/or having a daughter) admitted to having exercised violence on their wives or daughters over the same period.²⁸ A proxy indicator for domestic violence, acceptance of justifications for wife beating, is high in Burkina Faso. According to the 2003 DHS, 71 percent of women feel that wife beating is justified in at least one circumstance. A lower percentage of men (44 percent) identified at least one situation where wife beating was justified. More than 60 percent of Burkinabe women have undergone female genital cutting; the average age of girls undergoing this procedure is 6 or 7.²⁹ Ethnic groups differ in their practice of female genital cutting. Importantly, this practice compounds the risk of maternal mortality and morbidity.

International actors and coordination bodies. A wide range of international institutions is involved in food security in Burkina Faso. Most noteworthy for the Title II program are the UN agencies (World Food Programme [WFP], Food and Agriculture Organization of the United Nations [FAO] and United Nations Children's Fund [UNICEF]), the regional institution Inter-state Standing Committee on the Fight Against Drought in the Sahel (Comité Permanent Inter-Etats du Lutte contre la Sécheresse dans

²⁴ DHS 2003.

²⁵ CED is defined as a body mass index (BMI) less than 18.5 and is considered the cut-off for acute malnutrition in adults.

²⁶ GOBF/MAHRH/DGPER 2009.

²⁷ Fifty-three percent of women with no education are in polygamous unions compared to 39 percent among women who have completed primary school or who are literate and 11 percent for women who have achieved a secondary school degree or more. GOBF/MED/INSD and ORC Macro 2003.

²⁸ GTZ/PPROSAD 2008.

²⁹ Helmfriid 2004.

le Sahel [CILSS]), and the USAID-funded Famine Early Warning Systems Network (FEWS NET). With the formation of four nutrition coordination and advocacy groups, there has been tremendous progress in nutrition coordination and advocacy. However, addressing the ongoing needs will require additional efforts. The following is a list of the current nutrition and food assistance coordination and advocacy groups:

- In January of 2008, the Government created a National Council for Nutrition Coordination (Conseil National de la Concertation de la Nutrition [CNCN]), which is chaired by the Minister of Health; its role is to coordinate, monitor and advise on the implementation of the National Nutrition Policy (NNP).
- The MOH/DN chairs a nutrition coordination group; its focus is on fostering collaboration between the UN, NGOs and the MOH/DN.
- A group of NGOs funded by the European Commission's Humanitarian Aid Office (ECHO) formed a nutrition coordination, resource sharing, research and advocacy group with three working groups.
- The WFP leads a coordination group focused on food assistance and nutrition.
- The National Food Security Council (Conseil National de la Sécurité Alimentaire [CNSA]) is a GOBF-led, interagency network tasked with overseeing coordination of food security programs.

TABLE I. SELECTED INDICATORS FOR BURKINA FASO

INDICATOR ³⁰	VALUE	BURKINA FASO RANK / # OF COUNTRIES
Population		
Total population (millions)	14.0	-
Percent of total population under 18 (%)	46.2	-
Percent of population rural (%)	81.7	-
Gross domestic product		
Gross domestic product per capita (PPP) (USD)	1084	159/178
Contribution of agriculture to GDP (%)	40	-
Poverty		
Human poverty index	55.8	131/135
Population living below national poverty line (%)	46.4	-
Population living in extreme poverty (%)	---	-
Vulnerable employment rate (%)	-	-
Human development		
Human development index	0.372	173/179
Gender development index	0.364	121/156
Education		
Adult literacy rate (% aged 15 and over)	26.0	145/147
Adult literacy rate (female as % of male)	52.2	127/135
Net primary school enrolment (%)	45	-
Net primary school enrolment (female as % of male)	79	-
Net secondary school enrolment (%)	11	-
Percent attending secondary school (female as % of male)	-	-
Age at marriage and first birth		
Median age of women at first marriage (years)	17.7	-
Median age of women at first birth (years)	19.4	-
Percent of women (aged 20-24) married by age 18 (%)	51.9	-
Percent of adolescent girls (aged 15-19) who are pregnant or have given birth (%)	23.2	-
Life expectancy, fertility and mortality		
Life expectancy at birth (years)	51.7	157/179
Total fertility rate (births per woman)	6.4	-
Maternal mortality ratio (per 100,000 births)	700	-
Under 5 mortality rate (per 1,000 live births)	191	-
Infant mortality rate (per 1,000 live births)	96	-
Malnutrition		
Prevalence of underweight in children (% aged 0-59 months)	27	-
Prevalence of stunting in children (% aged 6-59 months)	38	-
Prevalence of wasting in children under 5 (%)	12	-
Percent of population undernourished (%)	10	-
HIV prevalence		
Adult HIV prevalence rate (% aged 15-49)	2	-
Water and sanitation		
Percent of population with access to improved water source (%)	72	82/123
Percent of population using improved sanitation (%)	7	-

³⁰ Sources: UNDP Human Development Report 2007/2008; ENIAM 2009.

4. FOOD SECURITY SITUATION IN BURKINA FASO

Section 4 presents a concise overview of food insecurity in Burkina Faso, using the three-pillar framework of food availability, access and utilization. **Section 4.1** discusses food security at national level and **Section 4.2** discusses the geographic distribution of food insecurity. FFP's Strategic Plan for 2006-2010 states that FFP's programs aim to reduce food *insecurity* in those populations most affected by reducing exposure to shocks, reducing vulnerability to the effects of shocks, and enhancing resiliency and capacity to recover. **Section 4.3** provides a framework for understanding the principal food security shocks and population groups' vulnerabilities and ability to cope with these shocks.

4.1 FOOD INSECURITY AT NATIONAL LEVEL

Despite the macroeconomic gains highlighted in **Section 3**, Burkina Faso remains a food insecure country with improvements needed in food availability, access and utilization.

4.1.1 Food Availability

4.1.1.1 Access to Land

The land tenure environment is precarious: until land reform laws are put into place, the current land laws do not recognize private land ownership. Although all land has technically belonged to the GOBF since the mid-1980s, the traditional land tenure system still operates in practice, and there is considerable tension between the two systems. The traditional system dictates that land is the property of patrilineal descent groups whose eldest living male is the custodian of the land (*chef de terre*) charged with distributing land use rights.^{31, 32}

In this traditional land tenure system, women access land only through men (husbands or sons), they are usually allocated poorer quality land, and they rarely own the capital (e.g., tools, machinery or cattle) to work the land.³³ A rural woman's ability to access land to use as her own plot depends on the customs of the ethnic group, the will of her husband, the social position of her husband (*vis-à-vis* the descent group of the village), and the scarcity of (and therefore intensity of demand for) land in the area. The land reform process aims to promote women's access to land and educate women about their economic and land rights.³⁴ However, as land is increasingly privatized and

³¹ Ouedraogo 2009.

³² Helmfriid 2004.

³³ Yoda 2008.

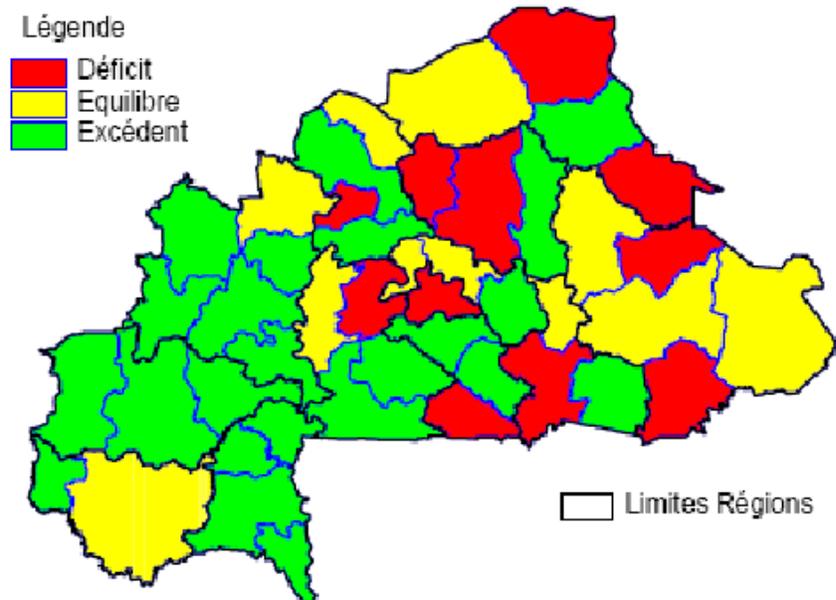
³⁴ Ki-Zerbo 2004.

marketed, women and poor men may find it difficult to access land via purchase or rent, in contrast to the customary system where they may have been able to secure temporary use-rights.³⁵

4.1.1.2 Aggregate Food Supplies

The average Burkinabe farmer cultivates three-to-six hectares (ha) of land. The total area cultivated in Burkina Faso has almost doubled over the last 20 years, a rate that will have the Burkinabe reaching the limits of cultivatable land by 2030.³⁶ The staple crops of Burkina Faso are sorghum, millet and maize, though urban food preferences are fueling increasing demand for rice and wheat. Additional food crops of national importance are fonio, cowpeas, groundnuts, sesame, sweet potatoes, yams and soy (**Annex 4a**). Millet is the primary staple for the poor. The main cash crops are cotton, cowpeas, groundnuts, shea butter, sesame and cashews. Unlike other countries in the region, Burkina Faso normally meets most of its cereal requirements from domestic production (**Annex 4b**). Total production has increased overall in recent years (**Figure 1**), driven by advances in the “breadbasket” regions in the southwest (**Map 1**). Land cultivated is increasing by 2.3 percent annually, and 46 percent of arable land was cultivated in 2006 – although this represents the effect of population growth rather than increased cultivation per household, which has stayed relatively constant. The 18 percent of the land that is arable is concentrated in the west and south.³⁷

MAP I. PRODUCTION BY REGION (2008)



Source: GOBF/MAHRH/DGPSA (2006).

³⁵ Helmfrid 2004.

³⁶ GOBF/DGPSA 2008c.

³⁷ CIA 2009.

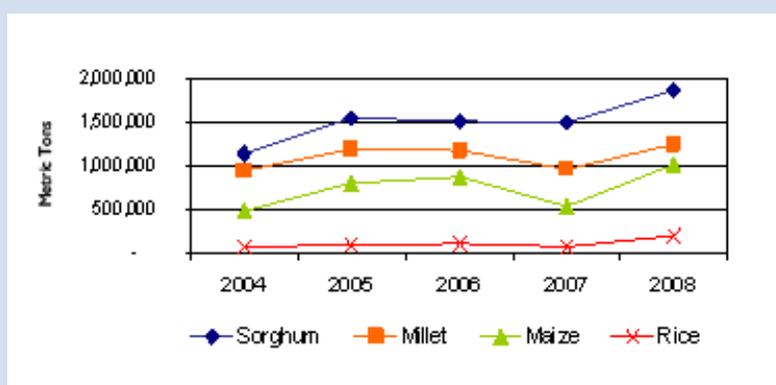
4.1.1.3 Production Systems

Around 80 percent of households identify the agriculture sector (including livestock) as their main source of livelihood.³⁸ The agricultural system is oriented towards smallholder subsistence production, especially of sorghum, millet and maize, for domestic consumption.³⁹ Rain-fed cereal production (which accounts for more than 88 percent of households' cultivated land⁴⁰) is destined mainly for household consumption, with only 10-20 percent of the cereals put on the market. The livestock sub-sector accounts for a quarter (25 percent) of agricultural GDP and 8 percent of total national GDP.⁴¹ Almost three quarters (70 percent) of the nation's cattle are owned by transhumant pastoralists in northern Burkina Faso, with the remaining cattle, small livestock and poultry owned by pastoralists and smallholder farmers.

The country can be divided into three broad production systems: cotton (and cereal) production in the southwest, subsistence cereal farming on the central plateau, and agro-pastoralism towards the north:⁴²

Cotton production in the southwest. Most farming households grow cotton, and the use of ox-ploughs (and even tractors) enables both cotton production and surplus production of maize. Mechanization has enabled longer planting seasons and larger areas cultivated per household. Access to credit is highest in the cotton zone. Cotton production greatly increases household food security and income relative to cereal production without cotton, but the cotton production system disproportionately benefits men, as men control cotton production and cotton revenue; mechanization has reduced time and labor requirements for male activities like soil preparation (but not the female activities of planting, weeding or harvesting).

FIGURE I. NATIONAL CROP PRODUCTION (2004-2008)



Source: GOBF/MAHRH/DGPSA.

³⁸ GOBF/MAHRH/DGPER 2009.

³⁹ GOBF/DGPSA 2008c.

⁴⁰ GOBF/DGPSA 2008c.

⁴¹ FAO 2005.

⁴² Helmfriid 2004.

Subsistence cereal farming on the central plateau. Households generally produce staple cereals, especially millet and sorghum, along with cash crops (cowpeas, groundnuts, sesame). Women are heavily involved in laboring on the family farm as well as on their own plots. Men either migrate to earn cash for the family, or remain to farm and earn cash from local work. Women do a range of activities to earn income such as collection from the shea and locust-bean trees (the latter for the spice *soumbala*).

Agro-pastoralism in the northern half of the country. Except for nomadic pastoralists in the Sahel Region, most of people living in the northern half of Burkina Faso are agro-pastoralists. Men are in charge of the large family plot, cattle and sometimes small stock, while women contribute labor to the family's plot, cultivate their own plots, and keep poultry and small stock. As in the other areas, women's labor is controlled by their husbands.

4.1.1.4 Impact of Cross-Border Trade on Aggregate Supply

Burkina Faso is in the central market trading basin. Commercial grain flows occur primarily with Togo, Ghana, Mali and Cote d'Ivoire (**Annex Ib**). Trade is hampered by poorly developed market and transport infrastructure. Agricultural exports account for the large majority (90 percent) of total exports, with cotton accounting for 70 percent, and livestock and food crops making up the balance.^{43, 44} Although food security may seem all but assured for the Burkinabe given Burkina Faso's relatively good production vis-à-vis its neighbors, demand from other countries for this production can significantly curtail market supplies, and increase prices for net consumers like those in the traditionally deficit areas. Export levels are generally determined by prices obtainable in domestic and regional markets, but the GOBF does take steps to control exports at times. In 2008 and 2009, for example, the GOBF responded to the food price crisis by instituting an informal (though effective) ban on exports. The ban has had the effect of ensuring adequate cereal supply in the country. It is uncertain how long the restrictions will be kept in place, or how likely the GOBF is to put such a ban in place in the future, given the uncertainty about future price trends.

4.1.1.5 Marketing and Value Chain Constraints for Smallholder Farmers

Marketing of smallholders' production varies. In the cotton zone of the southwest, producers' associations help regulate cotton trade, and producers are paid after harvest in cash for their production. In rural areas of the central plateau and regions farther north, traders travel to rural points in trucks after harvest to purchase grain from producers. Smallholder farmers face pressures in deciding when and how much to sell: the need for cash; insufficient storage to keep production until prices rise later in the season (and high post-harvest losses in storage); the need to repay debt; lack of timely and accurate market information or the ability to capitalize on market differentials to get the best return; lack of credit that would reduce the financial pressure to sell; and often

⁴³ GOBF/DGPSA 2008, p 8.

⁴⁴ The value of agricultural exports from Burkina Faso is influenced by exchange rates among the Euro (to which the CFA is pegged), the USD, the Nigerian naira and the Ghanaian cedi. Terpend 2006, FEWS NET 2008.

low levels of organization among producers. The constraints are aggravated among women for whom direct interaction with traders is taboo. Value chain constraints include lack of financing or credit; lack of information and skills for production, processing or marketing; and poor transport and marketing infrastructure. These constraints are particularly significant for producers in northern Burkina Faso given their isolation.

4.1.1.6 Contribution of GOBF Food Stocks and Humanitarian Assistance to Aggregate Supply

SONAGESS manages a national food stock (*Stock National de Sécurité Alimentaire* [SNSA]), a reserve of humanitarian aid (*Stock d'Intervention*, co-managed with humanitarian agencies) and a cereal market information system (*Système d'Information sur le Marché Céréalière* [SIM]). Between November 2007 and February 2008, SONAGESS released over 11,000 metric tons (MT) of cereals onto the market in the sixteen hardest hit provinces, at subsidized prices.⁴⁵ Strengthening of SONAGESS's capacity to manage prices through release of national food stocks on markets is a priority of the GOBF. The GOBF is planning to establish emergency food stocks at the regional level to enable rapid response in case of crisis. Humanitarian assistance also plays a small part in bolstering cereal availability: GOBF figures indicate that only a fraction – under 2 percent – of the population's cereal needs were met through humanitarian assistance from 2004-2008.⁴⁶

4.1.2 Food Access

4.1.2.1 Poverty

Burkina Faso ranks 131st out of 135 countries by the Human Poverty Index. As noted above, the national poverty prevalence (measured against the national poverty line) is estimated to have declined from 46 percent to 41 percent from 2003 to 2006 (**Annex 4c**), although global economic conditions threaten to increase both the poverty prevalence and income inequality. The national Complementary Nutrition Survey (*Enquête Nutritionnelle Complémentaire* [ENC]) of 2006-2007 demonstrated that the level of food insecurity (defined by the household food insecurity access scale [HFIAS]) declines significantly with increasing socioeconomic status, regardless of livelihood system (cereal dominant, cotton dominant and livestock dominant) or time during the hunger season and several months after harvest).^{47, 48}

⁴⁵ SONAGESS, personal communication.

⁴⁶ GOBF/MAHRH/DGPSA, personal communication.

⁴⁷ GOBF/MAHRH/DGPSA 2008b.

⁴⁸ HFIAS is a set of survey questions that can be adapted to a local situation to distinguish the food secure from the food insecure across different cultural contexts. The questions represent apparently universal domains of the household food insecurity (access) experience and can be used to assign households and populations along a continuum of severity, from food secure to severely food insecure. See http://www.fantaproject.org/publications/hfias_intro.shtml for more information.

4.1.2.2 Household Food Production and Stocks

The GOBF 2006 Permanent Agricultural Survey (*Enquête Permanent Agricole [EPA]*) estimated that roughly one-third (35 percent) of households were not self-sufficient in cereals (non-autonomes), meaning that a household's agricultural production was insufficient to cover the consumption requirements of its members (defined as 190 kilograms [kg]/person/year).⁴⁹ This figure masks large variation between rural and urban households (**Section 4.2.2**). For example, residents of Centre Region (Ouagadougou) produce only 12 percent of their cereal needs and access the rest through purchase. Household food production and stocks mainly rise and fall according to rainfall, given the limited use of irrigation.

4.1.2.3 Household Livelihood Strategies

About 77 percent of rural Burkinabe households report that their primary income source is agriculture (including livestock).⁵⁰ Urban households present a different picture, with 27 percent reporting salary/wages as the main income source, 20 percent identifying commerce, and the rest almost equally shared among transport and handicrafts, remittances, assistance and pensions, and food crop sales.⁵¹

Burkina Faso is one of the largest sources of immigrants among the world's low-income countries, and nearly one of every ten Burkinabe lives abroad. Remittances (officially recorded) brought in an estimated 50 million USD in 2008. Reductions in remittances from the global financial crises will place further strain on food security of households reliant on remittance income. Additionally, poor households are more likely to send members to work in West Africa, work that is less secure than the longer-term employment secured by migrants from better off households that is often outside of Africa.⁵²

4.1.2.4 Household Food Purchase

Households compensate for insufficient domestic production by purchase and drawing down on the previous year's stocks. The GOBF measures the percent of households "in apparent food poverty" (*pauvres céréalières apparentes*), who are unable to meet their minimum food needs through production, purchase and their stocks combined. The 2006 EPA determined that when considering purchase and household food stocks, the percent of households unable to meet their food needs declined from 35 percent to 30 percent—i.e., only 5 percent of households were able to go from food insecurity to food security by purchasing and drawing down on their food stocks.⁵³ In other words,

⁴⁹ GOBF/MAHRH/DGPSA 2007.

⁵⁰ GOBF/MAHRH/DGPER 2009.

⁵¹ GOBF/MAHRH/DGPER 2009.

⁵² Wouterse FS 2008.

⁵³ The EPA also identified households "in real food poverty" (*pauvres céréalières réelles*), which further takes into account gifts to and from others (social redistribution, or *solidarité*). Interestingly, this addition actually raised the percentage of food poor households by one percentage point. The report offered three explanations for this observation: *solidarité* is poorly developed in Burkina Faso in general; households tended to give more than they received on average; and the donation of food for ceremonies (particularly in

most food insecure households are not able to fill their food gap through purchase and stocks.

4.1.2.5 National Trends in Household Food Insecurity and Dietary Diversity

The 2006-2007 national ENC survey measured food insecurity (as HFIAS) and mothers' dietary diversity scores.⁵⁴ The ENC collected data among the same households at two points in time: August-September 2006 (lean season) and February-March 2007 (post-harvest). The HFIAS findings indicated that during the lean season, over half (55 percent) of households were in moderate or severe food insecurity, and only a third (33 percent) of households were food secure. After the harvest, the percentages had shifted: food secure households had risen to half (51 percent) and a little over a third (36 percent) of households reported moderate or severe food insecurity. Harvest brought the greatest improvements for food security among the severely food insecure, and less so for the moderately food insecure, but it is unclear how long the food security improvements lasted among these groups.

The ENC's dietary diversity results suggested that after the harvest period, women's dietary diversity improves. Improvements in dietary diversity were greatest for women in households that were food secure or in weak food insecurity (i.e., not moderately or severely food insecure). Thus, women in poorer and more chronically food insecure households do not necessarily access a more diverse, nutrient dense diet once the household granaries are full.

A CILSS/Sahel Nutrition, Food Security and Public Policy (Nutrition, Sécurité Alimentaire et Politiques Publiques au Sahel [NUSAPPS]) study on urban food security monitoring in Ouagadougou in 2007-2008 found that urban households, especially the poor, have experienced declining dietary diversity as a result of the food price crisis, with lowest dietary diversity found on the urban periphery where lower income households tend to reside. Between 2007 and 2008, the percent of households in Ouagadougou in moderate and severe food insecurity (by HFIAS) rose from 50 percent to 60 percent. By 2008, almost all (90 percent) of the poorest urban households (in the lowest socioeconomic tercile) were moderately or severely food insecure.⁵⁵

4.1.3 Food Utilization

4.1.3.1 National Trends in Child Malnutrition

The nutritional status of children under 5, as measured by either stunting (height-for-age [HFA] Z score <-2 standard deviations [SD]) or underweight (weight-for-age [WFA] Z score <-2 SD), is one of the best indicators of food utilization and a good indicator of the overall level of development in a country.⁵⁶ A high percentage of children suffering

Hauts-Bassins and Cascades Regions) actually left households less food secure. GOBF/MAHRH/DGPSA 2007.

⁵⁴ GOBF/MAHRH/DGPSA 2008b.

⁵⁵ GOBF/MAHRH/DGPER 2009.

⁵⁶ USAID/FFP 2005.

from chronic malnutrition or stunting is perhaps the most serious outcome of food insecurity.⁵⁷ In Burkina Faso nearly 40 percent of the children under 5 were found to be stunted (too short for their age) in the 2008 National Food Insecurity and Malnutrition Survey (Enquête Nationale sur l'Insécurité Alimentaire et la Malnutrition [ENIAM]).⁵⁸

What is of greater concern is the fact that data from the DHS surveys and the recent ENIAM survey show a trend of improvement only recently, and stunting appears to be more prevalent in 2008 than in 1993. Given the apparent trend of high chronic malnutrition with little improvement along with growing income inequality, it is evident that not everyone is benefiting from the macroeconomic gains in recent years.

TABLE 2. CHANGES IN PROPORTION OF CHILDREN UNDER 5 MALNOURISHED

	1993	1998	2003	2008 ⁵⁹	2008 ⁶⁰
Stunting (HFA)	29	37	39	33	38
Wasting (weight-for-height [WFH])	13	13	19 ⁶¹	11	12
Underweight (WFA)	30	34	38	33	27

Source: DHS Surveys, 1993, 1998, 2003; ENIAM 2008 (conducted in June and July).

In addition to a level of stunting of 38 percent which nearly meets WHO's 'very high' threshold of 40 percent, Burkina Faso's level of underweight is also high, at 27 percent.⁶² Equally worrisome is the level of wasting recently estimated at 12 percent, which would be classified as 'serious' by WHO emergency protocols. Child malnutrition contributes to over 50 percent of deaths in children under 5 in Burkina Faso; it also contributes to the high disease burden in this age group.⁶³ Children who are wasted are at immediate risk of death, but stunting is also a serious problem; it has long-term adverse affects on affected children, on their cognitive development, their ability to learn and their health and productivity throughout life.⁶⁴

4.1.3.2 Most Vulnerable Age Groups for Children

The fetal stage through 2 years is the period of most rapid growth and a critical time in child development. At this age, children are most vulnerable to growth faltering, which is most often caused by illness, infection and sub-optimal feeding practices. High rates of

⁵⁷ Young children's nutritional status is a good indicator of food access and utilization. HFA or stunting is the best indicator of whether malnutrition is a chronic problem because it indicates past growth failure, reflects long-term factors such as chronic insufficient protein and energy intake, frequent infection and sustained inappropriate feeding practices and is not sensitive to short-term changes.

⁵⁸ GOBF/MAHRH/DGPER 2009.

⁵⁹ Anthropometric data analyzed using NCHS Growth Reference 1977; this same growth reference used to analyze the 1992, 1998 and 2003 DHS data.

⁶⁰ Data analyzed using WHO Growth Reference 2005.

⁶¹ EDS 2003 Survey conducted during the lean period (June through November) which may at least partially explain the high level of wasting reported in 2003 compared to 1993 and 1998 when the surveys were conducted during and after the harvest November/December through March. The DHS 2003 wasting data has been questioned as it is high in comparison to other countries in the region.

⁶² WHO 1995.

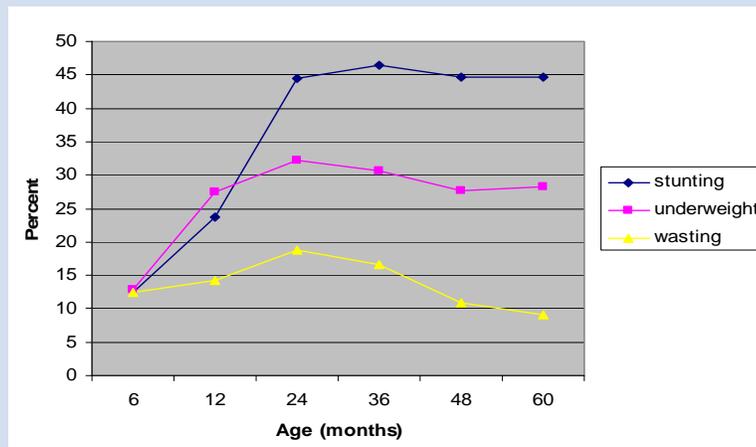
⁶³ Pelletier et al 1995.

⁶⁴ Grantham-McGregor et al 2007.

childhood illness in Burkina Faso, including malaria, pneumonia and diarrhea, likely contribute to the high rates of malnutrition found in young children. According to DHS data, prevalence of all three of these diseases peaks in the 6-23 month age range, the same age range in which malnutrition rates are climbing. In Burkina Faso, the prevalence of stunting (HFA Z score < -2 SD), and underweight (WFA Z score < -2 SD) increases dramatically between the ages of 6 and 18 months and then levels off, as is indicated in **Figure 2**. Because stunting is frequently irreversible, especially after the age of 2 when the pace of growth slows, it is important to intervene to support children’s health and nutrition before they become stunted.

Several studies have shown that stunting can be reduced by targeting nutrition interventions during the first two years of life.⁶⁵ Evidence from randomized controlled trials and a group of observational studies also suggest that nutrition interventions such as supplementary feeding are more effective in improving child growth and preventing growth faltering in younger children than in older children.⁶⁶ In other words, the window of opportunity to improve nutritional status begins at conception and continues through the first 2 years of a child’s life, because children in this age range are most responsive to interventions that improve their nutritional status, growth and development.

FIGURE 2. PERCENT OF CHILDREN 0-59 MONTHS WHO ARE UNDERNOURISHED, BURKINA FASO, 2008 (WHO 2005 GROWTH STANDARDS)



Source: GOBF/MAHRH/DGPSA (2009)

4.1.3.3 National Trends in Malnutrition in Women

Maternal nutritional status is a strong determinant of child malnutrition. A recent study of agricultural households found that children of women with CED (CED) were at

⁶⁵ Ruel et al 2008.

⁶⁶ Ibid.

higher risk of being stunted and wasted compared to children of mothers with normal weight.⁶⁷ The same study also demonstrated the relationship between food insecurity and malnutrition in women as it found higher levels of CED among women during the lean season (22 percent) compared to the season following the harvest (17 percent). In Burkina Faso 18 percent of women in their child bearing years were found to be underweight or to suffer from CED (**Table 3**). This indicator is even higher at 25 percent for the subgroup of adolescent women (aged 15-19 years). Similar to the trend in child malnutrition, the data from the DHS surveys and the recent ENIAM survey show a stagnant or slightly worsening situation since 1993. Even more worrisome, among the sub-group of adolescent women the rate of CED has increased more over this same period than it has for women 15-49 years.

TABLE 3. CHANGES IN PROPORTION OF WOMEN (AGED 15-49 YEARS) WITH CED

	1993	1998	2003	2008
CED among women 15-49 years	15	13	21	18
CED among adolescent women 15-19 years	18	12	27	25

Source: DHS Surveys 1993, 1998, 2003; ENIAM 2008.

High prevalence of CED among women may result from inadequate energy intake, which can be due to many factors including lack of food access, anorexia due to infection and nausea, discriminatory intra-household food distribution and self-sacrificing behavior.⁶⁸ Heavy physical labor, such as water and fuel collection or agricultural work, can also contribute to CED. CED increases the risk of wasting, ill health and poor physical performance and is associated with poor birth outcomes, including low birth weight. The level of CED in Burkina Faso (18 percent) indicates a poor nutrition situation requiring intervention, which may include supplementation, increased food production, education and/or behavior change.⁶⁹ One of the effects of an elevated rate of CED can be seen in the high prevalence of low birth weight in Burkina Faso, estimated at 15 percent.⁷⁰ In addition to the problem of elevated CED, nearly 54 percent of reproductive age women and 68 percent of pregnant women suffer from anemia.⁷¹ Anemia is often caused by insufficient intake of iron, poor absorption of iron, malaria, worm infestation or infectious disease. It increases the risk of premature delivery, low birth weight, death for both the mother and her baby during delivery and impaired cognitive development in the fetus. In addition, babies of anemic mothers are more likely to be anemic themselves and face challenges to growth and development. To summarize, food insecurity and poor diet quality contribute to elevated levels of CED and anemia; both conditions contribute to poor birth outcomes, lower birth weight infants and a higher risk of child malnutrition.

⁶⁷ GOBF/MAHRH/DGPSA 2008b.

⁶⁸ Remancus et al. 2009.

⁶⁹ WHO 1995.

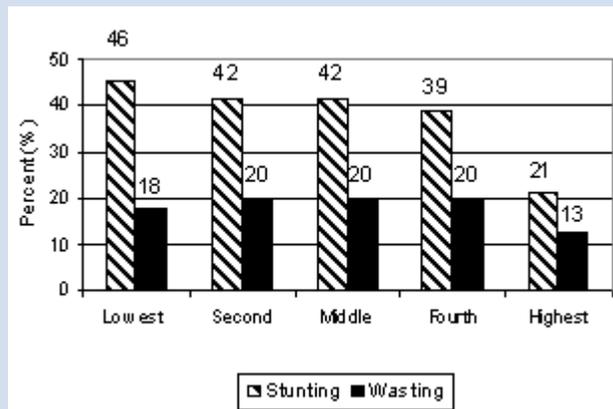
⁷⁰ EDS 2003.

⁷¹ Ibid.

4.1.3.4 IYCF

Poor rates of exclusive breastfeeding and poor IYCF practices contribute to Burkina Faso's high levels of malnutrition. WHO recommends exclusive breastfeeding for children 0-5 months; and appropriate feeding for children 6-23 months including: continued breastfeeding, feeding solid/semi-solid foods a minimum number of times per day, feeding a minimum number of food groups per day, continued feeding during and after illness, feeding an appropriate quantity of food, providing food with appropriate consistency and feeding nutrient-dense foods.⁷² Poor breastfeeding and infant feeding practices have adverse consequences for the health and nutritional status of children. This, in turn, has consequences for their mental and physical development. In Burkina Faso, less than a quarter of infants receive breast milk within the first hour of birth and the percentage of infants exclusively breastfed for the first six months is extremely low at 6 percent. Among most ethnic groups in Burkina Faso, colostrum is considered dirty and a source of illness for infants, and expressing and throwing it away is commonly practiced. Further, there has been little if any improvement in the rate of exclusive breastfeeding in Burkina Faso over the last 15 years leaving most (94 percent) young infants at high risk of illness and malnutrition during a period of rapid growth and development. In contrast, in other countries in the region such as Senegal and Mali where the similar customs of feeding water and tea to young infants are common, improvements in the rate of exclusive breastfeeding have been achieved.

FIGURE 3. PERCENT OF CHILDREN WITH MALNUTRITION (STUNTING AND WASTING) BY WEALTH QUINTILE



Source: DHS 2003

The quality and quantity of complementary foods and the timing of introduction of these foods are also of concern. Solid foods such as watery gruels are often introduced early and nutrient dense complementary foods are lacking. Regarding appropriate timing, only 38 percent of infants 6-9 months receive solid foods in addition to breast milk with just 23 percent in this age group fed solid foods the number of times recommended. In the

⁷² PAHO/WHO (2004).

6-24 month age group, only 42 percent consume even the minimum number of food groups. The lack of dietary diversity means that most children are not getting enough of the nutrients they need for healthy growth and development.

4.1.3.5 Child Malnutrition and Poverty

The evidence that stunting decreases as incomes increase indicates that poverty, or lack of access to food, is also an important determining factor for child malnutrition in Burkina Faso. The prevalence of stunting among the lowest wealth group is more than double the prevalence of the highest wealth group. The fact that the levels of wasting and stunting remain high even among the highest wealth group suggests that in addition to better access to food, health care and other services and improved IYCF practices are also needed.

4.1.3.6 Gender and Nutrition

Women in Burkina Faso play an important role in household nutrition and food security through their responsibilities as marketers, food producers and caregivers. Their status within the household and community can affect the nutritional status of their children and the food security status of their household. Research on the relationship of women's status to child nutrition in developing countries conducted by the International Food Policy Research Institute (IFPRI) determined that in sub-Saharan Africa, women with higher status—those with greater relative power to men—were associated with better nutritional status of their children. This is because women who are more empowered have better nutritional status, are better cared for and are therefore more able to provide adequate care their children.⁷³ Studies conducted in Uganda, India and Latin America have also linked domestic violence with poor health and nutritional outcomes in women and their children, and domestic violence is often linked to depression and low self-esteem in women. Women suffering from domestic abuse exclusively breastfeed their infants for shorter periods and have lower access to maternal health services. The high prevalence of domestic violence in Burkina Faso adversely affects women's ability to provide optimal care for their children; gender inequity likely contributes to the poor health and nutritional status of women and children and ultimately to poor household food security. Women in Burkina Faso, especially young mothers, have limited participation in household decision-making and low community and household status compared to men. An additional challenge in Burkina Faso is the high rate of adolescent pregnancy. Adolescent mothers and their infants are at greater risk of poor nutrition outcomes in the long term; and adolescent mothers, by virtue of their age and life-stage, fall at the lowest end of the social and gender hierarchy. At their time of greatest need in terms of young child nutrition and care, they have the least decision-making power and the least access to resources to ensure optimal health, nutrition and growth in their children.

⁷³ Smith et al. 2003, p xii.

4.2 GEOGRAPHIC DISTRIBUTION OF FOOD INSECURITY

As described in **Section 4.1.1.3**, the country's production systems are shaped mainly by the availability of arable land and water resources.⁷⁴ Towards the south, wooded savannah characterizes the *soudanienne* ecology, and up to 1,300 millimeters (mm) of rain falls over a six-month period annually. Agriculture is the economic foundation of the household, with an emphasis on maize and rice where possible. In sharp contrast, the sandy plains of northern Burkina Faso only benefit from 300 mm of rainfall annually. The population of the area has adapted by shifting to an economic emphasis on livestock, with sorghum and millet production diversifying and supplementing their income base. **Figure 5** summarizes the key food security indicators used to analyze the geographic distribution of food insecurity for this FSCF.

4.2.1 Food Availability

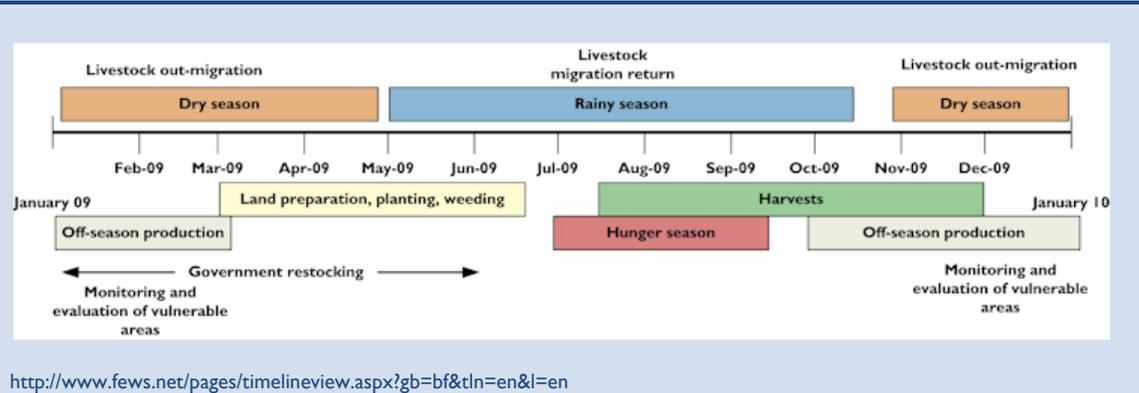
The main constraints to food productivity include: limited access to arable land; limited, erratic and declining rainfall; limited access to inputs and credit; reliance primarily on household labor for production; land tenure systems that fail to promote investment and credit access; cultural restrictions on land access and economic activities among women; and poor agricultural production and marketing infrastructure.

4.2.1.1 Land Access, Production Systems and Productivity

Burkina Faso has a main rainy season from May to November and a dry off-season from October to March (**Figure 4**). Data are not available for average household land size by region. Pressure on land is greatest around urban centers, in traditional migration destinations (especially the southwest) and in the central plateau. Generally, food production is highest in the western half of the country and lowest in the eastern and northern sections. Agricultural data for 2004-2008 indicate that cereal production in the main season is highest in Boucle du Mouhoun, Hauts-Bassins, Nord and Centre-Ouest Regions. These four regions provided almost 40 percent of the nation's sorghum, millet, maize and rice from the main crop season in that five-year period. These regions are also the location of many of the intensively cultivated (and often irrigated) sites of the country, including rice, cotton, sugar cane and horticultural crops. The provisional results of the 2008-2009 agricultural season displayed in **Map 2** illustrate this trend, with the "equal or deficit" provinces clustered mainly towards the north and east, and the "surplus" provinces located more towards the west.

⁷⁴ Atlas de l'Afrique 2005.

FIGURE 4. SEASONAL AND EVENTS CALENDAR FOR BURKINA FASO



During the last five years, yields (in kg/ha) for major crops have remained stagnant, except for rice.⁷⁵ Reliable data on post-harvest losses are not available, but are thought to be significant (and particularly high for cowpeas, for which post-harvest losses were estimated at 25-50 percent by the GOBF). Such lack of progress on increasing yields of smallholders derives in part from credit constraints, which limits the use of improved seeds and inputs required to cope with land degradation and adverse climatic conditions.

4.2.1.2 Agricultural Trade

The cereal marketing system in Burkina Faso moves grain from surplus regions (Hauts-Bassins, Cascades and parts of Boucle du Mouhoun, Sud-Est and Centre-Ouest Regions) to retail markets in deficit areas (see **Annex Ic** for the example of millet production and market flows). Key markets for the cereals trade in include Pouytenga, Ouahigouya and Dédougou.^{76, 77} As noted in **Section 4.1.1**, producers in the northern part of the country sell only a small portion of their dryland cereals, putting the rest in the household granary (or if it is produced on a woman's small plot that she personally manages, she can put that production in her own granary). Food that the households must purchase later in the season must generally be purchased at local retail markets, such as Kaya (Centre-Nord Region), Djibo (Sahel Region) and the many other smaller retail markets in the area. Private traders purchase commodities from rural producers after harvest to transport to collection markets, cross-border markets or Ouagadougou. Traders also transport food commodities back into rural areas during the lean period at higher prices than the original farm gate price. **Table 4** gives a summary of the origin and destination of the principal commodities traded between Burkina Faso and its regional neighbors. Smallholders in the northern half of the country do not typically purchase the rest of their annual food needs after harvest when prices bottom out, for lack of credit or finance to do so.

⁷⁵ FAO 2009a.

⁷⁶ Terpend 2006.

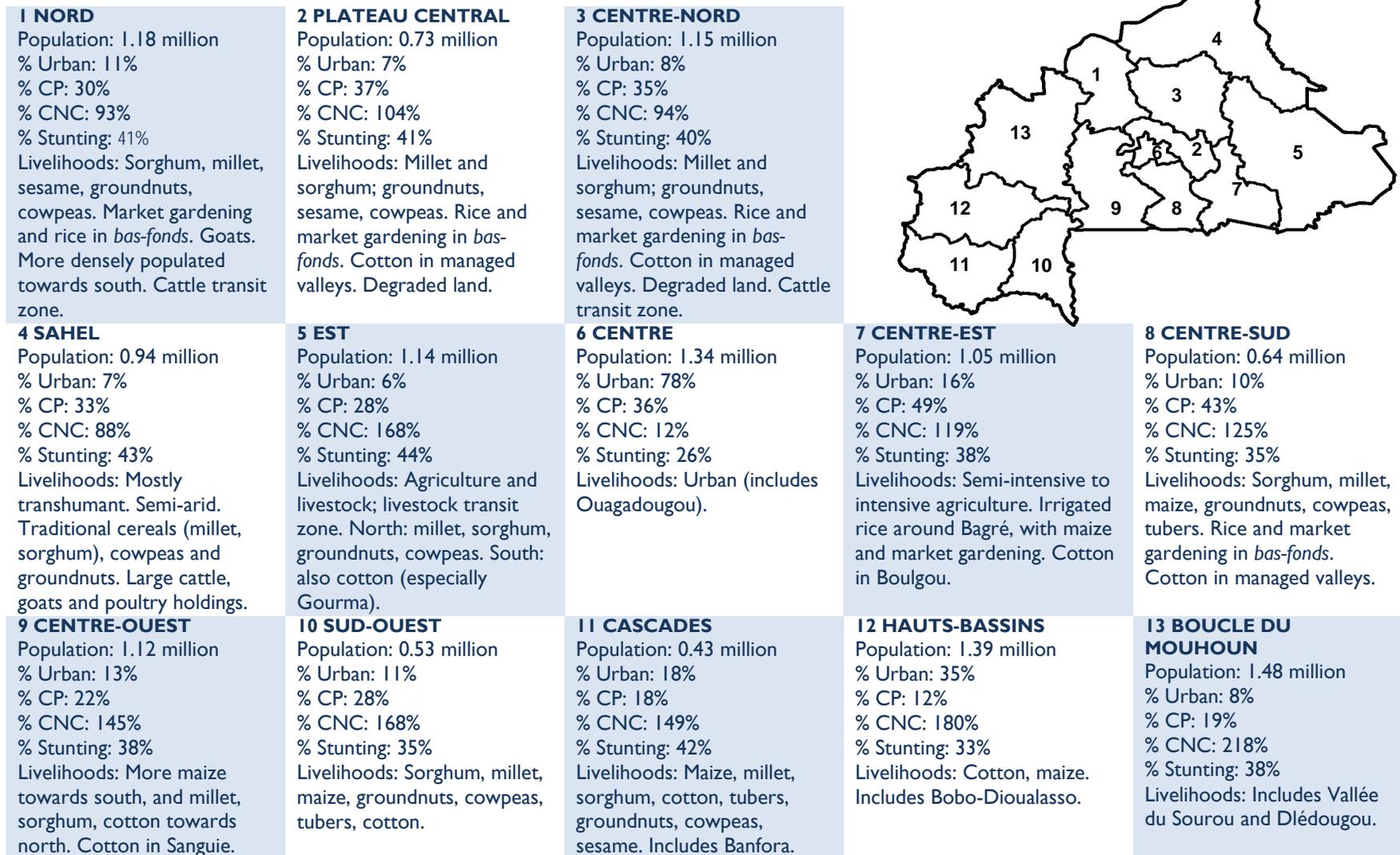
⁷⁷ FEWS NET 2009.

TABLE 4. BURKINA FASO'S CROSS-BORDER TRADE

CROP	ORIGIN(S)	DESTINATION(S)
Fonio	Burkina Faso	Mali
Millet	Burkina Faso	Niger
Maize	Cote d'Ivoire	Burkina Faso
Sorghum	Burkina Faso	Mali
Cowpeas	Burkina Faso	Mali, Senegal
Soybeans	Mali, Cote d'Ivoire, Ghana	Burkina Faso
Livestock	Burkina Faso	Cote d'Ivoire, Ghana, Benin, Senegal

Source: FEWS NET (2008)

FIGURE 5. SELECTED FOOD SECURITY INDICATORS BY REGION ⁷⁸



⁷⁸ “% CP” refers to the percent of the region’s population “in apparent food poverty” (cereal poverty, or *pauvres céréalières apparentes*, see Section 4.1.2.4). “% CNC” refers to the cereal needs coverage of the region, or the percent of the total cereal requirements of the region’s population that was produced within that region. Estimates for % CP and % CNC in Figure 5 are for the harvest of 2008 (consumed during the 2008-2009 marketing year), GOBF/MAHRH/DGPER personal communication.

4.2.2 Food Access

Geographic distribution of household food access can be examined in Burkina Faso by looking at differences in household food production, households' ability to access food from markets and other sources and food security indicators collected by national surveys (HFIAS and dietary diversity).

4.2.2.1 Variation in Household Food Insecurity and Dietary Diversity

Households in cotton growing provinces are more food secure, and have higher maternal dietary diversity, than households in cereal and livestock focused provinces. The ENC survey examined differences in food insecurity (by HFIAS) and maternal dietary diversity among three national livelihood groupings: cereal dominant, livestock dominant and cotton dominant.⁷⁹ These categories were assigned at the level of province, not household, with the traditionally deficit provinces falling into the cereal dominant and livestock dominant categories. Households in the cereal and livestock dominant provinces are affected disproportionately by food insecurity: although 33 percent of households nationally reported being food secure before the harvest, this figure was 47 percent for cotton dominant areas, 26 percent for livestock dominant areas and 20 percent for cereal dominant areas. The difference was even more pronounced after harvest, when the percent of the population classified as food secure was 51 percent nationally, 71 percent in cotton dominant areas, 28 percent in livestock dominant areas and 31 percent in cereal dominant areas. Dietary diversity of women was also highest in cotton dominant areas relative to the livestock and cereal dominant areas, due to better availability and access to a diverse diet.

4.2.2.3 Sharp Differences in Food Production by Region

Map 2 presents the 2006 cereal poverty data discussed in **Section 4.1.2**, disaggregated to province level (the data are also provided in **Table 5**). Other than several provinces in Sud-Ouest and Hauts-Bassins regions, the west fared better than the rest of the country, with less than one quarter of all households producing less than their minimum cereal requirements. The regions with the percent of households non-autonomes above the national average included: Nord, Plateau Central, Sahel, Centre-Sud, Centre, Centre-Est and Centre-Nord Regions. In agricultural (not livestock-dominant) areas, there is a direct relationship between the level of household production and the level of food security (defined by HFIAS). In livestock dominant areas, the relationship is more complex because transhumant pastoralists (especially in Sahel region) do less agriculture. However, the low production levels in deficit areas put these households at risk of high food prices in case of poor production. Smallholders in cotton areas are also cereal producers, and the production of cotton provides several advantages for food security: a source of income, access to credit and inputs that can be used for staple crop fields as well, a generally higher level of organization among producers and better access to markets.

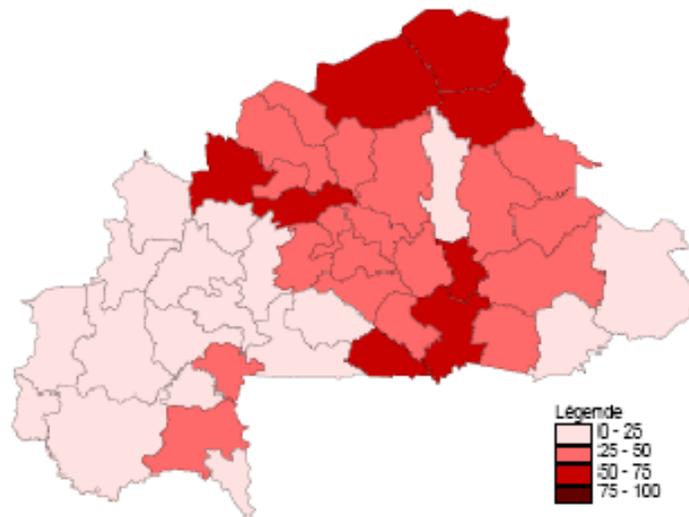
⁷⁹ GOBF/MAHRH/DGPSA 2008b.

4.2.2.4 Variation in Food Access by Market Purchase

The market plays an important role in complementing production and assuring food security for Burkinabe households, but in different ways. For surplus producers in the west and southeast of the country, for example, food security depends on obtaining a good price for one's food and cash crop production, and on being paid in a timely manner for one's cotton harvest.⁸⁰ In contrast, food security of agropastoral households in the northern half of the country depends on obtaining a good price for cash crops and reasonable terms of trade between millet and livestock (particularly male goats). (See **Annex IC** for millet trade map, which is quite similar to the sorghum and maize flows.)

The GOBF survey that produced the findings displayed in **Map 2** also analyzed the geographic distribution of apparent food poverty, displayed in **Map 3**. The broad implication is that buying food does go some way towards meeting the food gap in low-production areas – in fact in every region in the country, the market reduced the overall percentage of households unable to meet their food needs (though this did vary for selected provinces). Most striking was the reduction in the percentage of households with insufficient food access in the heavily market-dependent Sahel and Nord Regions (reductions of 17.1 percent and 13.8 percent respectively).

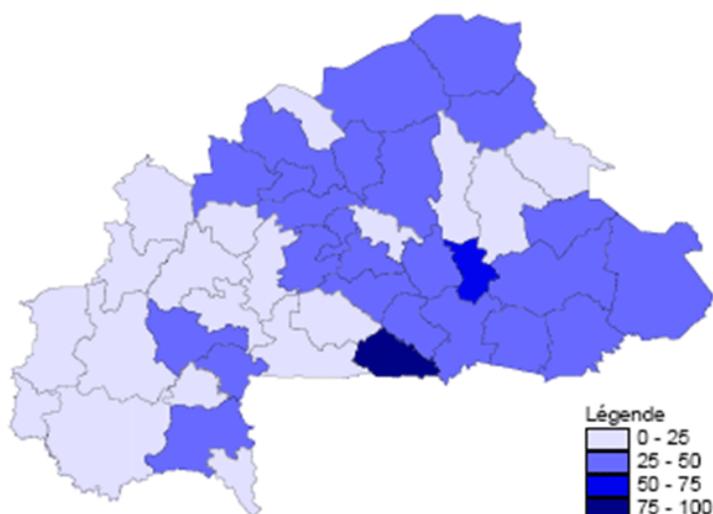
MAP 2. PROPORTION OF HOUSEHOLDS NOT SELF SUFFICIENT IN CEREALS (2006)



Source: GOBF/MAHRH/DGPSA 2006.

⁸⁰ FEWS NET 2008.

MAP 3. PROPORTION OF HOUSEHOLDS IN APPARENT FOOD POVERTY (2006)



Source: GOBF/MAHRH/DGPSA 2006.

TABLE 5. ADEQUACY OF CEREAL PRODUCTION BY REGION

REGION	PERCENT OF POPULATION FOOD NEEDS COVERED BY PRODUCTION, BY REGION (%)						PERCENT OF POPULATION WITH INADEQUATE FOOD ACCESS (%) (2006)	
	2004-2008	2008	2007	2006	2005	2004	PERCENT NOT SELF-SUFFICIENT IN CEREALS ⁸¹ (%)	PERCENT IN CEREAL POVERTY ⁸² (%)
Boucle du Mouhoun	182	218	161	206	184	140	23.2	19.4
Cascades	128	149	115	151	128	98	18.7	17.9
Centre	13	12	7	14	16	13	42.4	36.3
Centre-Est	97	119	68	92	99	107	55.4	49.3
Centre-Nord	93	94	73	82	116	99	37.9	35.0
Centre-Ouest	134	145	105	130	140	148	26.3	22.3
Centre-Sud	103	125	80	94	109	106	44.3	43.3
Est	117	168	85	90	111	129	31.2	28.3
Hauts-Bassins	162	180	135	196	181	119	12.1	11.8
Nord	116	93	114	151	133	91	44.1	30.3
Plateau Central	95	104	92	99	112	70	37.2	36.5
Sahel	108	88	119	127	151	54	49.8	32.7
Sud-Ouest	145	168	118	153	129	159	30.7	28.0
Burkina Faso	113	119	96	123	125	102	35.2	29.6

Source: GOBF/DGPSA personal communication.

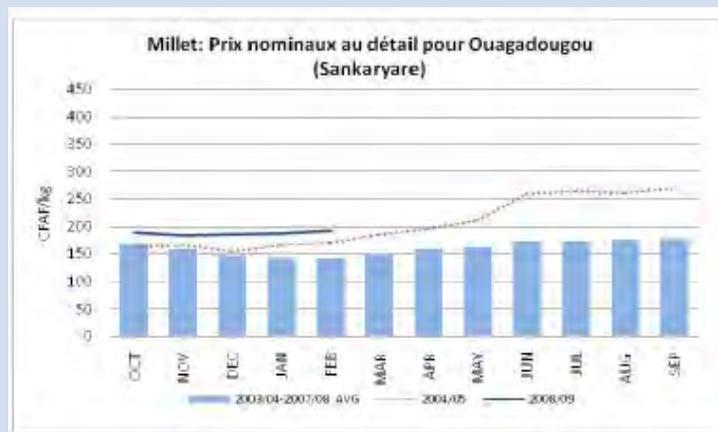
⁸¹ This refers to households “non-autonomes.” See Section 4.1.2.2 for definition.

⁸² This refers to households that are “pauvres céréalières apparentes.” See Section 4.1.2.4 for definition.

4.2.2.5 Variation in Prices and Terms of Trade

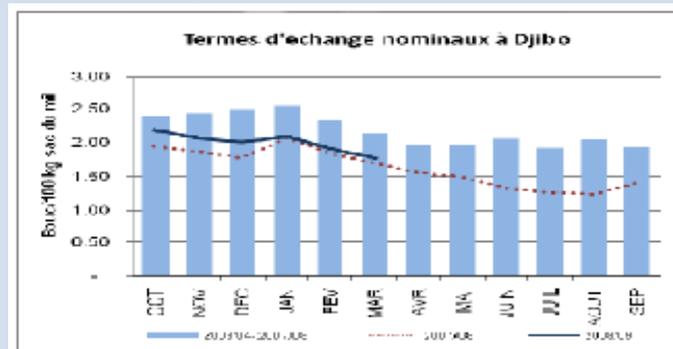
After reaching record highs in mid-2008, retail prices for staple cereals have stabilized but remained above the five-year average. **Figure 6** illustrates this for millet in the main retail market of Ouagadougou, Sankaryare. Seasonal fluctuations in the terms of trade are to be expected in the region, but trends in terms of trade favored pastoralists during the food price crisis of 2008, because the value of livestock in good condition remained relatively high (**Figure 7**).⁸³

FIGURE 6. NOMINAL MILLET PRICES, SANKARYARE MARKET, OUGADOUGOU (2003-2008 AVERAGE, 2008-2009)



Source: SONAGESS, DGPSE, FEWS NET Burkina Faso

FIGURE 7. EVOLUTION OF TERMS OF TRADE BETWEEN MALE SAHELIEN GOAT (BOUC) IN GOOD CONDITION AGAINST 100 KG MILLET IN DJIBOU MARKET



Source: SONAGESS, DGPSE, FEWS NET Burkina Faso

⁸³ Surveys at the peak of the 2008 food crisis (mid-2008) found a better food security situation among pastoralists than farmers, because the terms of trade between livestock and cereals favored pastoralists at that point in time.

4.2.2.6 Limited Household Income-Earning Opportunities

A household's risk of food insecurity in Burkina Faso is associated with the level of household income and with percent of expenditures on food.⁸⁴ Lower household income is also associated with poor maternal dietary diversity. Burkinabe households earn income from the following sources: selling agricultural production, selling livestock and providing labor (formal or informal) for payment. Preliminary ENIAM results indicate that four fifths of rural households' annual income (81 percent) is generated from the agricultural sector (including livestock).⁸⁵ The other fifth is provided by trade, salaried and other paid work and other activities. In sharp contrast, the provisional ENIAM results suggest that urban households earn 42 percent of their annual income from salaried and other paid work, 23 percent from trade and the balance from other sources. Production of traditional sorghum beer, *dolo*, is a widespread and likely underestimated source of income for women nationwide.

When disaggregated by sex of household head, the provisional ENIAM data present a different income picture for female-headed households (FHH). Only 15 percent of FHHs reported that the agricultural sector is their main source of income.⁸⁶ Commerce was reported as the main income source for 30 percent of FHH; salary and other paid work was the main source of income for 30 percent of FHH; and transfers/remittances, assistance and pensions together were the main income source of another 19 percent of FHH. The higher reliance on off-farm activities for FHH may reflect the fact that FHH are disproportionately located in urban centers, particularly Ouagadougou, and that these households often face labor constraints.

4.2.2.7 Labor Migration

Out-migration by Burkinabe was common historically, with Cote d'Ivoire the main destination until curtailed by civil insecurity. Migration to urban centers (Ouagadougou and Bobo-Dioulasso) and cotton producing provinces has filled the gap to some extent, although labor opportunities in cotton producing areas are declining. Migration rates are highest in poor, rural, male-headed households in the deficit regions of the country, particularly those with less land. Although migration does take labor power away from farming households, it can provide technical efficiency and be beneficial to the household if the remaining family members can fill in the labor gap and if some remittances are provided.⁸⁷

4.2.2.8 Limited Dietary Substitution Opportunities

As noted above, millet is the main staple food for poor households, sorghum and maize are widely consumed and rice is preferred by urban consumers. For low-income rural households that mainly consume millet and sorghum, dietary substitution options are limited. Urban consumers do have the option to replace rice with sorghum and millet

⁸⁴ GOBF/MAHRH/DGPSA 2008b.

⁸⁵ GOBF/MAHRH/DGPER 2009.

⁸⁶ GOBF/MAHRH/DGPER 2009.

⁸⁷ Wouterse 2008.

when food prices rise. Research suggests that Burkinabe urban consumers are hesitant to substitute rice with less preferred cereals, preferring instead to use the same household funds to purchase a lower quantity of rice, and reducing overall cereal intake.⁸⁸

4.2.3 Food Utilization

4.2.3.1 Child Malnutrition

Stunting and underweight rates are higher in rural areas; both rates are actually twice as high in rural compared to urban areas.⁸⁹ Stunting rates also vary by region, with the highest prevalence of stunting in the Est (44 percent) and the Sahel (43 percent) (**Annex 4d**). The Cascades, Nord, Centre Nord and Plateau Central regions also have levels of stunting above 40 percent. It is interesting to note that, although the Cascades region has the third highest prevalence stunting (42 percent), it is one of the most food abundant regions in Burkina Faso. The regions with the highest levels of underweight, above 29 percent, are Est, Sahel, Boucle du Mouchon, Plateau Central, Nord and Cascades.

The EPA surveys of 2006 and 2007 included a nutrition component that provides nationally representative data on households with agricultural production as their main source of income (the ENC). The results support the relationship between food insecurity and malnutrition as children from food secure homes (as defined in the survey) were found to have a lower level of stunting, 37 percent compared to 41 percent from food insecure homes.⁹⁰ The ENC also found a relationship between a mothers' dietary diversity, a proxy indicator for household food security, and their children's nutritional status. Children of mothers with the most diverse diets were at lower risk for stunting, underweight and wasting compared to mothers with the least diverse diets.

4.2.3.2 Maternal Malnutrition

A similar pattern of higher prevalence in rural (20 percent) versus urban (12 percent) is found for malnutrition or CED for women. The prevalence of CED among women also varies among regions with the highest levels (above 20 percent) in the regions of Plateau Central, Est, Centre Est, and Nord. Three of these four regions also reported higher levels of stunting and underweight (**Table 8**). Dietary diversity, a proxy indicator for food security, was also found to be related to women's nutrition status in the ENC. Women with the most diverse diets had less risk of CED compared to women with average and poor dietary diversity.

⁸⁸ Kelly et al 2008.

⁸⁹ EDS 2003.

⁹⁰ GOBF/MAHRH/DGPSA 2008b.

4.2.3.3 IYCF

In Burkina Faso, less than one-quarter of infants receive breast milk within the first hour of birth and the percentage of infants exclusively breastfed for the first 6 months is extremely low at 6 percent (**Table 6**). The exclusive breastfeeding rate is slightly higher in urban areas, 7 percent compared to 6 percent in rural areas. The regions with the highest prevalence of exclusive breastfeeding are: Est, Centre Sud and Haut Bassins and conversely, the regions with the lowest prevalence of exclusive breastfeeding are: Centre, Plateau Central and Sud Ouest. Regarding appropriate timing of complementary foods, in several regions (Est, Nord, Sahel, Centre Nord, Plateau Centre and Boucle du Mouhoun) the introduction of solid foods is delayed beyond the recommended 6 months. Only 43 percent of children 6-24 months consume diets of minimum diversity. In rural areas, this percentage is even lower; and in the regions of Est, Sahel, Centre Nord and Centre Ouest one third or less of young children have diets of minimum diversity.

TABLE 6. NATIONAL AND REGIONAL LEVEL DATA ON INFANT FEEDING PRACTICES

REGIONS	PERCENT OF WOMEN INITIATING BREASTFEEDING WITHIN 1 HOUR OF BIRTH (%)	PERCENT OF INFANTS 0-5 MONTHS EXCLUSIVELY BREASTFED (%)	PERCENT OF INFANTS 12-15 MONTHS STILL BEING BREASTFED (%)	AVERAGE AGE (IN MONTHS) WHEN COMPLEMENTARY FOODS ARE INTRODUCED	PERCENT OF CHILDREN 6-23 MONTHS WITH MINIMUM DIETARY DIVERSITY (AT LEAST 4 FOOD GROUPS) (%)
National	23.8	5.9	70.3	6.1	42.6
Rural	23.8	5.5	71.0	5.6	40.0
Urban	23.7	8.3	65.6	6.1	58.4
Est	25.5	9.7	72.8	6.5	29.5
Sahel	21.5	6.0	63.3	7.5	26.3
Cascades	37.6	4.0	63.3	5.5	68.4
Nord	27.5	4.9	70.5	6.9	46.0
Centre Nord	10.2	4.0	72.9	6.4	31.8
Plateau Central	22.7	2.0	74.5	6.4	34.2
Boucle du Mouhoun	22.5	5.0	68.7	6.9	34.7
Centre Est	30.1	4.0	74.9	6.1	46.7
Centre Ouest	36.4	5.3	70.2	6.0	32.6
Centre Sud	21.8	7.2	68.9	5.5	57.9
Sud Ouest	8.9	2.8	68.6	4.1	62.2
Hauts Bassins	23.6	9.9	67.7	5.4	48.3
Centre	24.6	2.7	63.1	5.6	50.0

Source: ENIAM 2008 Provisional Report

4.2.3.4 Health

In addition to an energy and nutrient rich diet and adequate child care, optimal utilization or biological use of food requires other factors such as access to adequate health services, potable water and sanitation. Almost 80 percent of women surveyed in the 2003 DHS reported problems in accessing health care, with access varying by region (see **Table 7** for rural and urban comparison and regional variations). The most common challenges included accessing money and transportation. The distance to the health center also often poses a problem. Only 17.6 percent of pregnant women receive the recommended four or more antenatal care visits. As expected, a higher level of education and urban residence favor women's participation in antenatal care.

TABLE 7. ACCESS TO HEALTH SERVICES, WATER AND SANITATION

REGIONS	PERCENT OF WOMEN REPORTING PROBLEMS ACCESSING HEALTH CARE (%) (DHS)	PERCENT OF CHILDREN UNDER 5 YEARS SLEEPING UNDER AN ITN (%) (DHS)	PERCENT OF CHILDREN 0-59 MONTHS RECEIVING VITAMIN A SUPPLEMENTS (LAST 6 MONTHS) (%) (DHS)	PERCENT OF CHILDREN FULLY VACCINATED BY AGE 2 (BY CARD OR MOTHER'S REPORT) (%) (DHS)	PERCENT OF HOUSEHOLDS WITH ACCESS TO POTABLE WATER (%) (ENIAM)	PERCENT OF HOUSEHOLDS USING TOILETS OR LATRINES (PRIVATE OR PUBLIC) (%) (ENIAM)
National	79.2	6.5	33.3	43.9	71.4	38.1
Rural	82.7	5.9	30.9	41.2	68	20
Urban	66.6	10.0	48.7	62.0	84	83
Est	86.4	15.0	7.8	43.9	76.7	11.3
Sahel	92.7	5.2	25.6	23.2	68.9	17.0
Cascades	61.6	3.1	27.3	38.2	75.7	50.8
Nord	78.7	2.0	42.6	51.7	51.6	27.2
Centre Nord	79.0	3.8	38.7	59.1	79.2	25.1
Plateau Central	85.8	3.6	35.6	44.8	91.4	25.7
Boucle du Mouhoun	67.6	15.5	34.9	50.1	37.5	33.6
Centre Est	81.3	6.8	29.2	43.9	84.2	25.0
Centre Ouest	92.2	4.1	38.7	36.0	67.9	18.4
Centre Sud	86.1	3.3	38.9	51.9	77.9	16.5
Sud Ouest	85.2	1.3	34.9	53.3	49.4	13.0
Hauts Bassins	70.1	16.0	34.7	38.2	65.3	70.3
Centre	w/o Ouagadougou				w/ Ouagadougou	
	89.9	3.1	34.6	52.1	96.2	86.1

Source: DHS 2003 and ENIAM 2008 Provisional Report

4.2.3.5 Water, Sanitation and Hygiene

Nationally the percent of households with adequate sanitation, that is, using toilets and latrines rather than the “bush” is low in Burkina Faso at 38 percent (**Table 7**). For rural households, 20 percent use toilets or latrines compared to 83 percent in urban areas. The regions with less than 30 percent of households with adequate sanitation facilities are Est, Sahel, Nord, Centre Nord, Plateau Central, Centre Est, Centre Ouest, Centre Sud, Sud Ouest. On the other hand, households with access to potable water, defined as, mineral water, tap water, public spring, borehole or pump is high at 71 percent with 68 percent access in rural areas and 84 percent in urban locations. Regions with less than 70 percent of households with access to potable water include Nord, Sahel, Boucle du Mouhoun, Centre Ouest, Sud Ouest and Hauts Bassins.

4.2.3.6 Other Key Preventive Measures

Regarding health indicators for young children, nationally 44 percent of children are fully vaccinated, with children in urban areas more likely to have received all vaccinations (62.0 percent) compared to children living in rural areas (53 percent).⁹¹ The regions with the poorer full vaccination coverage (less than 40 percent) are the Cascades, Sahel, Haut Bassins and Centre Ouest. Vitamin A supplement coverage follows the typical pattern with coverage in urban areas (49 percent) higher than rural areas (31 percent). The regions with the lowest vitamin A coverage, i.e., below 30 percent are Est, Sahel, Centre Est and Cascades. Malaria is the leading cause of morbidity and mortality in children under 5 in Burkina Faso. However, less than 7 percent of children under 5 sleep under insecticide treated nets (ITNs). The regions with the lowest ITN coverage are Nord, Sud Ouest, Cascades, Plateau Central, Centre Ouest, Centre Sud, Centre Nord and Centre, all with less than 5 percent of children sleeping under ITNs.

⁹¹ DHS 2003.

TABLE 8. NATIONAL AND REGIONAL LEVEL DATA FOR STUNTING AND UNDERWEIGHT OF CHILDREN UNDER 5 AND CED OF WOMEN

REGIONS	PERCENTAGE OF CHILDREN UNDER 5 STUNTED (%) (HFA < -2 SD)			PERCENTAGE OF CHILDREN UNDER 5 UNDERWEIGHT (%) (WFA < -2SD)			PERCENTAGE OF WOMEN 15-49 WITH CED (%) (BMI < 18.5)	
	DHS 2003 NCHS* GROWTH REFERENCE	ENIAM 2008		DHS 2003 NCHS GROWTH REFERENCE	ENIAM 2009		DHS 2003	ENIAM 2009
		NCHS GROWTH REFERENCE	WHO GROWTH REFERENCE		NCHS GROWTH REFERENCE	WHO GROWTH REFERENCE		
National	38.7	32.9	38.1	37.7	32.9	27.4	20.8	18.1
Rural	41.6	n/a	40.8	40.3	n/a	28.5	24.2	19.7
Urban	20.2	n/a	25.7	20.5	n/a	20.7	8.8	12.0
Est	58.6	38.2	43.9	36.3	37.0	31.1	13.4	24.4
Sahel	49.4	36.7	42.7	48.8	39.3	33.2	27.5	19.3
Cascades	41.8	35.8	42.2	48.8	33.0	29.1	24.0	12.6
Nord	37.4	34.3	40.8	40.2	35.4	29.9	26.5	22.7
Centre Nord	42.0	34.0	40.2	31.2	29.1	24.8	20.5	15.4
Plateau Central	37.7	33.6	40.8	50.4	36.1	29.7	37.0	27.6
Boucle du Mouhoun	34.0	33.0	37.8	42.6	37.5	32.0	23.1	16.6
Centre Est	40.8	32.2	38.3	42.8	30.6	25.6	23.5	26.2
Centre Ouest	38.2	31.4	38.2	38.5	32.7	26.9	18.8	17.2
Centre Sud	35.4	30.8	35.7	34.3	29.2	23.6	33.3	15.7
Sud Ouest	40.4	30.8	35.2	43.8	27.9	22.0	20.5	15.7
Hauts Bassins (with Bobo Dioulasso)	32.9	28.5	33.4	29.1	27.0	21.5	15.1	9.4
Centre (with Ouagadougou)	21.8	21.9	26.3	21.2	28.5	22.3	8.5	13.0

Source: DHS 2003 and ENIAM 2009

* National Center for Health Statistics

4.3 VULNERABLE POPULATIONS

The FFP food security conceptual framework notes that “risks that constrain or threaten food availability, access and utilization” must play a more central role in our food security analysis and programs. FFP advises that food security programming in a risk and vulnerability framework requires an orientation towards understanding shocks, vulnerabilities and coping capacities of individuals, households and communities.

4.3.1 Risks, Vulnerabilities and Coping Capacities

Sections 3 and 4 highlighted the main risks, vulnerabilities and coping strategies most relevant to food security and Title II programs. Generally, the shocks that are of greatest concern for food security (particularly food access) in overwhelmingly rural Burkina Faso are those that:

- Reduce household crop production or worsen post-harvest losses, such as drought or poorly timed rain, flooding, cricket and other pest infestations
- Threaten productive capital, such as drought or illnesses that cause morbidity or mortality in animals or cause distress sales of other productive assets
- Diminish household income earning capacity, such as illness, disability, loss of remittance income or loss of labor opportunities
- Erode household purchasing power, such as high prices or poor terms of exchange

Preliminary ENIAM data identified the most frequently reported food security shocks to be (in declining order) drought or delayed rain, serious illness, excessive rainfall or flooding, and elevated food prices.⁹² However, the specific shocks of greatest concern to Burkinabe households vary according to sex of household head, rural/urban status and cereal/livestock dependence:

- FHH are disproportionately affected by loss of an active household member and by high food prices. It is estimated that around 9 percent of households are female-headed, and these households disproportionately reside in urban areas.⁹³ The loss of an active household member may reduce household income and labor capacity, making it more difficult to earn sufficient income to afford the high food prices.
- Urban households reported serious illness and accidents most frequently. This is consistent with urban living conditions, characterized by high dependence on daily labor and elevated risk of traffic and workplace accidents.
- Predominantly agricultural and predominantly pastoral households ranked shocks differently. During the dry season for example, pastoralists (both nomadic and transhumant) in northern Burkina Faso are most vulnerable to downturns in the terms of trade between livestock and cereals, which depends on factors like access to good pasture and water resources, as well as the performance of the national and regional agricultural season.⁹⁴

⁹² GOBF/MAHRH/DGPER 2009.

⁹³ GOBF/MED/INSD and ORC Macro 2003.

⁹⁴ FEWS NET 2009.

Major sources of vulnerability to food insecurity in Burkina Faso include:

- Residence in the more environmentally degraded and economically marginal provinces
- Economic reliance on rain-fed agricultural production using traditional methods without complementary or off-farm economic activities (undiversified household economies)
- Small land holdings in agricultural (not pastoral) areas where off-farm economic activities are scarce
- Sex of household head, with FHH at greatest risk of food insecurity
- Lack of labor power in household, including for many FHH
- High rates of underlying malnutrition, including stunting and underweight in children and CED in women, make people more vulnerable to the effects of shocks like a food crisis or an epidemic of infectious disease: This is especially true for young children and pregnant and lactating women, given their relatively higher nutritional requirements as well as the consequences of nutritional deprivation on growth and development (of the child in utero, in the case of pregnant and lactating women); two-fifths (38 percent) of children under 5 are stunted and 18 percent of women of reproductive age have CED
- Poor water and sanitation
- Inadequate access to health services
- Inappropriate IYCF and care practices
- Low school enrolment and illiteracy

The effects of these shocks on at-risk populations are directly related to households' capacity to manage them. According to preliminary ENIAM results, households reported a narrow set of coping strategies to manage common food security shocks:

- Dietary substitution to cheaper commodities: Options for doing this are limited for low-income smallholders whose diet is dominated by the cheap staples sorghum and millet; this strategy may reduce dietary diversity
- Reduction of quantity of food consumed
- Sale of non-reproductive livestock because poor households own poultry (and no livestock), this constraints the income that can be generated by selling them in a crisis
- Reduction in expenditure, such as school enrolment/fees for children
- Borrowing money (debt) with the risk of increasing indebtedness over repeated food shocks
- Increase economic activities (e.g., petit commerce) or look for temporary work

As noted in **Section 3.1** above, rural Burkina Faso does not have a well-developed labor market. In other countries, households facing a shock to food security may be able to approach other community members to request work opportunities to be paid in cash or in kind. In the cultural context of Burkina Faso, however, this is discouraged in favor of focusing on one's own farm. Additionally, cultural expectations of women (particularly in the more arid food deficit areas of the country) discourage women from doing daily labor for others or undertaking income-generating activities (IGA) off the household compound.

4.3.2 Vulnerable Groups and the Title II Program

Title II programs should target those who are most affected by chronic food insecurity (including chronic malnutrition). Based on the discussion in the sections above on the constraints to food security, the following groups may be defined as “vulnerable groups” (i.e., they are the most at risk of chronic food insecurity):

People located in the chronically food insecure, deficit regions of Nord, Plateau Centrale, Centre-Nord, Sahel and (northern) Est. This region includes transhumant and nomadic pastoralists, who are mainly concentrated in the Sahel and Nord Regions. Also included are agropastoralists living in degraded and often densely populated environments in Nord and Centre Nord Regions. Geographic concentration in these areas should serve to strengthen program impact and synergies. The Title II program should focus in these areas where food availability and access are more problematic, and thus where food commodities are more likely to fill an existing food gap and serve more effectively as an incentive: rural areas towards the north and east of the country (**Boxes 2 and 3**).

Female-headed households. FHH faced increased risk of food insecurity because of labor constraints, constraints on access to and control over land, and other factors. Women can produce food on small plots and keep small stock or poultry, but cannot go to the livestock market to negotiate the sale of their animals, nor can they make decisions regarding the sale of food stocks in the household’s main granary.

Pregnant and lactating women. Women should be targeted for supplementation from conception through the critical early months of lactation, to protect growth and development of the child in utero and to protect the nutritional status of the mother. Given their additional risk for mortality and poor birth outcomes, Title II programs should prioritize services for pregnant adolescents and adolescent mothers.

Children under 24 months of age. As **Figure 2** demonstrates, growth faltering disproportionately occurs during the critical 6-24 month window. Food assistance needs to be complemented by services that address the main causes of growth faltering in young children.

BOX 2. GEOGRAPHIC TARGETING AND REGIONAL VARIATION IN CAUSES OF MALNUTRITION

Malnutrition is often said to present a “paradox” in Burkina Faso, because chronic malnutrition in children is prevalent in the “breadbasket” areas as well as in the poorer areas of the country. The prevalence of stunting in children under 5 years of age in Hauts-Bassins, Boucle du Mouhoun and Cascades are 33 percent, 38 percent and 42 percent respectively (**Table 8**). **Section 4** of this strategy demonstrates that, over the medium to long term, the food security situation in the southwest has been generally better than in the north, but many causes of child malnutrition remain prevalent in the southwest. Prevalence of recommended infant and young child feeding practices is very low; difficulties in accessing health care are widely reported; and except for urban centers, access to improved sanitation and water is very poor. In the north, these factors are compounded by chronically inadequate food access, and levels of food insecurity (by HFIAS), dietary diversity and child malnutrition are worse in the north. Many GOBF and international development efforts (e.g., MCC) focus on the southwest. The Title II program aims to support the most chronically vulnerable and food insecure populations, and should focus on the north.

BOX 3. GEOGRAPHIC TARGETING AND URBAN AND PERI-URBAN POPULATIONS

During the food price crisis of 2007-2008, the urban and peri-urban poor emerged as a vulnerable group hard-hit by high food prices, particularly in Centre Region (Ouagadougou) and Hauts-Bassins Region (Bobo-Diaoulasso). Deterioration of food security (by HFIAS) and dietary diversity was documented in urban areas. Stabilization of prices and urban food security interventions have improved the situation since mid-2008. The use of vouchers to provide a safety net for food access of urban households seems to have been effective. The long-term effects of the crisis on the food security of urban and peri-urban poor are not yet known, and future price trends in urban food security are uncertain. Urban and peri-urban households are therefore not recommended as a high priority vulnerable group for the Title II program at this time.

5. STRATEGIES AND PROGRAMS RELATED TO REDUCING FOOD INSECURITY IN BURKINA FASO

This section provides a summary of the strategies and interventions currently used by the GOBF, USAID and other development actors to address food security in Burkina Faso, with an emphasis on those most relevant to the Title II program. The Title II program should support the GOBF vision and strategies for strengthening food security of the most chronically food insecure populations, and learn from implementation of the Title II Development Assistance Program (DAP).

5.1 GOBF POLICIES, STRATEGIES AND PROGRAMS

Several policies, strategies and programs have been developed by the GOBF that lay the foundation and vision for development in Burkina Faso (**Table 9**). Reducing food insecurity and improving nutrition outcomes are an integral part of this development platform.

- The GOBF's Poverty Reduction Strategy Paper (PRSP; or *Le Cadre Stratégique de Lutte Contre la Pauvreté* [CSLP]) provides the vision for national development actions and strategies. The springboard for a series of policies, strategies and plans of action related to food security, nutrition and poverty reduction, the CSLP prioritizes rural development and food security. One of the four axes focuses on guaranteeing access by the poor to basic social services and social protection, including nutrition and health services. The Rural Development Strategy (*La Stratégie de Développement Rural à l'Horizon 2015* [SDR]) aims to ensure that the implementation of the CSLP effectively reduces the prevalence of rural poverty.⁹⁵ The SDR is the basis for a range of sector and sub-sector development strategies. The GOBF Coordinator for Agricultural Sector Policies (*Coordination de Politiques Sectorielles Agricoles*, CPSA) is assisting to develop a program of national investment. They are now developing a *Diagnostique Agricole*, identifying priority interventions in agriculture. Phase II, which will start in 2009, will involve development of a concrete agricultural investment strategy for Burkina Faso.⁹⁶
- A National Food Security Strategy (*La Stratégie Nationale de Sécurité Alimentaire* [SNSA]) articulates the vision for establishing sustainable food security. To put the SNSA into action, the GOBF developed the Operational and Program Strategy for Sustainable Food Security and Poverty Reduction (*Stratégie Operationelle et Programme de Sécurité Alimentaire Durable dans une Perspective de Lutte contre la Pauvreté*). One of the five objectives was to improve the economic and nutritional conditions of poor populations and vulnerable groups. The SNSA led to the establishment of a National Food Security Council (*Conseil National de la Sécurité Alimentaire* [CNSA]) and of a Plan of Action for a Food Security Information System (*Plan d'Action pour la Système d'Information sur la Sécurité Alimentaire* [PA-SISA]).

⁹⁵ GOBF 2004.

⁹⁶ CPSA, personal communication.

- In 2007, the GOBF MOH/DN released a National Nutrition Policy (*Politique Nationale de la Nutrition* [NNP]). A National Nutrition Plan of Action (*Plan d'Action Nationale de la Nutrition*), which will elaborate the activities planned to realize the goal of the NNP, is near completion. Also in 2007, Protocols for the Treatment of Acute Malnutrition (*Protocole National pour la Traitement de la Malnutrition Aiguë*) were launched by the GOBF MOH/DN. The protocols include the treatment of both moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) and incorporate the outpatient approach for the treatment of SAM without complications. In addition, the protocols call for screening for acute malnutrition in communities and at health centers. In 2008, the MOH/DN in partnership with UNICEF and NGOs developed a Nutrition Communication Plan (*Plan de Communication en Nutrition* [PCN]), which guides GOBF and partner efforts on behavior change communication (BCC) to improve nutrition related behaviors, including IYCF.
- The GOBF established the National Plan for Organization and Coordination of Emergency and Rehabilitation Assistance (*Plan National d'Organisation et de Coordination des Secours d'Urgence et de Réhabilitation* [PNOCSUR]) in 1999. The PNOCSUR is a broad contingency and response planning document that defines types of emergencies and defines how the GOBF and its partners will respond to them.⁹⁷ It is the mission of CONASUR to oversee the implementation of the PNOCSUR. In 2008, the GOBF established the Emergency Plan for Food and Nutrition Security in Burkina Faso (*Plan d'Urgence pour la Réalisation de la Sécurité Alimentaire et Nutritionnelle au Burkina Faso*). The *Plan d'Urgence* defined the steps to be taken to protect nutritional and food security status, given the context of high food prices, in accordance with the country's development objectives and strategies.⁹⁸ CONASUR is currently developing a National Contingency and Response Plan for Disasters and Humanitarian Crises (*Plan National de Contingence Multi-Risques de Préparation et de Réponse aux Catastrophes et Crises Humanitaires*).⁹⁹ CONASUR is also developing a Coordination Framework (*Cadre de Concertation*) to guide coordination and support the *Plan de Contingence* during a crisis. CONASUR is situated in the Ministry of Social Action and National Solidarity, but is in fact an interministerial structure that engages a range of GOBF ministries and international and national non-governmental organizations.
- The GOBF National Policy on the Promotion of Women (*La Politique Nationale de la Promotion de la Femme*) aims to promote women not only politically but also in their communities.
- The GOBF National Plan for Health Development (*Plan National de Développement Sanitaire*) identifies the GOBF's priorities for strengthening health care access, availability and quality.
- The GOBF National Policy on Public Hygiene (*La Politique Nationale en Matière d'Hygiène Publique* [PHNP]) identifies the GOBF's priorities for improving hygiene, and reducing hygiene and sanitation-related morbidity and mortality.
- The Ministry of Basic Education and Adult Literacy (*Ministère de l'Enseignement de Base et de l'Alphabétisation* [MEBA]) runs a School Feeding Program. MEBA has prioritized provinces for school feeding programs according to a three-tier system based on food insecurity and low enrolment rates.

⁹⁷ GOBF (1999).

⁹⁸ GOBF (2008).

⁹⁹ CONASUR, pers comm.

Finally, a number of GOBF-led coordinating bodies are key stakeholders in food security and nutrition program implementation in Burkina Faso:

- The National Food Security Council (*Conseil National de Sécurité Alimentaire* [CNSA]), established in 2006, coordinates efforts of government and partners related to food security. The CNSA is composed of 12 government bodies, and a range of donors, technical partners and civil society organizations.¹⁰⁰ The CNSA is situated in the MAHRH.
- The National Council for Nutrition Coordination (*Conseil National de la Concertation de la Nutrition* [CNCN]). The CNCN coordinates, monitors and advises on the implementation of the National Nutrition Policy.
- The Coordinator for Agricultural Sector Policies (*Coordination de Politiques Sectorielles Agricoles* [CPSA]) is charged with coordination of policies, plans of action and other key documents related to agriculture and its subsectors.
- CONASUR is in charge of emergency response, including coordinating the efforts of multiple agencies engaged in responding to a crisis (particularly rapid-onset disasters). The Rural Development Partners' Consultative Framework (*Cadre de Concertation des Partenaires du Développement Rural* [CCPDR]) coordinates the efforts of government, civil society organizations and donor partners in agriculture and rural development.

¹⁰⁰ CNSA personal communication.

TABLE 9. GOBF POLICIES, STRATEGIES AND COORDINATING BODIES RELEVANT TO ACHIEVING FOOD SECURITY OBJECTIVES IN BURKINA FASO

POLICY / STRATEGY	OBJECTIVES AND INTERVENTIONS
<p>Poverty Reduction Strategy Paper (PRSP)¹⁰¹ <i>Cadre Stratégique de Lutte Contre la Pauvreté (CSLP)</i> 2000, revised in 2003</p>	<ul style="list-style-type: none"> • Four strategic objectives or pillars: 1) accelerated, shared, broad-based growth; 2) improved access to basic social services and social protection by the poor; 3) employment opportunities and IGA increased in an equitable manner; and 4) good governance (political, administrative, economic, local). • Eight priorities: 1) social deficit reduction; 2) rural development and food security promotion; 3) improvement of access (especially the poor) to potable water; 4) fight against HIV/AIDS; 5) environmental protection and improvement of living conditions; 6) small and medium-sized enterprise, industry and small mine development; 7) public security strengthening; and 8) strengthening national capacity, especially new information technologies. • Priority actions identified to achieve these strategic objectives and their indicators of achievement are outlined in the rolling, three-year Priority Action Programs. Progress against objectives is tracked annually by the IMF and World Bank.
<p>Rural Development Strategy¹⁰² <i>La Stratégie de Développement Rural à l'Horizon 2015 (SDR)</i> 2003</p>	<ul style="list-style-type: none"> • The SDR encompasses sector development strategies for agriculture, livestock breeding, fishing, hunting and forestry until 2015, to guide sub-sector development to ensure rural poverty reduction and sustainable economic growth. • Seven strategic axes include: 1) increase, diversify and intensify agricultural production; 2) reinforce links between production and markets; 3) increase and diversity sources of revenue; 4) improve availability of potable water and sanitation; 5) ensure sustainable natural resource management; 6) reinforce capacity of actors and create a favorable institutional framework; and 7) improve the economic situation and social status of women and youth in rural areas. • The MAHRH has developed a range of Plans of Action for specific sub-sectors and industries that aim to operationalize the SDR and CSLP.
<p>National Food Security Strategy and Operational and Program Strategy for Sustainable Food Security and Poverty Reduction¹⁰³ <i>Stratégie Nationale de la Sécurité Alimentaire et Stratégie Opérationnelle et Programme de Sécurité Alimentaire Durable Dans une Perspective de Lutte contre la Pauvreté</i> 2003</p>	<ul style="list-style-type: none"> • The Operational and Program Strategy for 2003-2007 was developed to guide the implementation of the national food security strategy for the five-year period. • Five objectives: 1) increase national food production levels and value added on a sustainable basis; 2) reinforce market capacities to support populations' access to food; 3) improve economic and nutrition conditions of poor populations and vulnerable groups on sustainable basis; 4) reinforce crisis prevention and management capabilities alongside reductions in structural food insecurity; and 5) reinforce capacities to promote good food security governance. • Nine main axes: 1) water management; 2) soil fertility; 3) natural/rural resources; 4) domestic and alternative energy; 5) improvement of the environment and production; 6) development of supportive networks; 7) development of markets and information systems; 8) IGA; and 9) interagency collaboration.

¹⁰¹ GOBF/MED 2003.

¹⁰² GOBF 2004.

¹⁰³ GOBF/MAHRH 2003.

POLICY / STRATEGY	OBJECTIVES AND INTERVENTIONS
<p>Plan of Action for a Food Security Information System¹⁰⁴ Plan d'Action pour la Système d'Information sur la Sécurité Alimentaire (PA-SISA) 2004</p>	<ul style="list-style-type: none"> The PA-SISA aims to improve the availability of data on food security in Burkina Faso. It uses data from a range of GOBF and non-governmental institutions, from monitoring and early warning systems.
<p>National Nutrition Policy¹⁰⁵ Politique National de la Nutrition (PNN) 2007</p>	<ul style="list-style-type: none"> In 2007, the GOBF MOH/DN released a National Nutrition Policy. Six objectives: 1) to reduce the morbidity and mortality caused by acute malnutrition and micronutrient deficiencies; 2) to reduce the prevalence of chronic diseases related to nutrition; 3) to improve the nutrition services offered through the health system; 4) to reinforce community participation in nutrition activities; 5) to assure food safety and the nutritional quality of food; and 6) to reinforce the coordination and integration of multisectoral nutrition activities.
<p>National Protocol for Management of Acute Malnutrition¹⁰⁶ Protocole National pour la Traitement de la Malnutrition Aiguë 2007</p>	<ul style="list-style-type: none"> In 2007, protocols for the treatment of acute malnutrition were launched by the GOBF MOH/DN. The protocols include the treatment of both moderate and severe acute malnutrition and incorporate the outpatient approach for the treatment of SAM without complications.
<p>Nutrition Communication Plan¹⁰⁷ Plan de Communication en Nutrition (PCN) 2008</p>	<ul style="list-style-type: none"> The MOH/DN in partnership with UNICEF and NGOs developed the PCN, which identifies six key nutrition and nutrition-related behaviors for focus, including IYCF. It also sets targets and elaborates a communication strategy for achieving improvements in the targeted behaviors.
<p>National Plan for Organization and Coordination of Emergency and Rehabilitation Assistance¹⁰⁸ Plan National d'Organisation et de Coordination des Secours d'Urgence et de Réhabilitation (PNOCSUR) 1999</p>	<ul style="list-style-type: none"> PNOCSUR lays out an institutional and emergency response framework for in Burkina Faso. CONASUR (see below in table) is mandated to oversee the implementation of the PNOCSUR.

¹⁰⁴ GOBF/MAHRH 2004.

¹⁰⁵ GOBF/MOH/DN 2007a.

¹⁰⁶ GOBF/MOH/DN 2007b.

¹⁰⁷ GOBF/MOH/DN 2008.

¹⁰⁸ GOBF 1999.

POLICY / STRATEGY	OBJECTIVES AND INTERVENTIONS
<p>Emergency Plan for Food and Nutrition Security in Burkina Faso¹⁰⁹ Plan d'Urgence pour la Réalisation de la Sécurité Alimentaire et Nutritionnelle au Burkina Faso 2008</p>	<ul style="list-style-type: none"> • The Emergency Plan was established in 2008 to outline the causes and contributors to high international and national prices, and define elements of a strategy for rapidly and effectively increasing food production and food security in the context of these high prices and in line with existing poverty reduction and food security strategies. • To address the principal causes related to land, water and human capital constraints, the Emergency Plan identifies priority interventions along two main axes: 1) shorter-term actions to address food shortages through maize and rice production using existing techniques; and 2) medium-term actions to improve food and nutrition security by increasing, intensifying and diversifying agro-sylvo-pastoral production including agricultural processing and exports.
<p>National Policy on the Promotion of Women¹¹⁰ Politique Nationale de la Promotion de la Femme 2002</p>	<ul style="list-style-type: none"> • Five axes of the National Policy on the Promotion of Women include social mobilization, awareness raising, training, research for action, and mobilization of resources.
<p>National Plan for Health Development¹¹¹ Plan National de Développement Sanitaire 2001</p>	<ul style="list-style-type: none"> • The overall goal of the health plan is to reduce the prevalence of morbidity and mortality in the population. It includes eight objectives or program focus areas: increase the coverage of the national health system; improve the quality and utilization of the health services; strengthen the efforts to decrease communicable and non-communicable diseases; reduce the transmission of HIV; develop health human resources; improve the population's financial access to health services; and increase the resources for health and strengthen the institutional capacity of the MOH.
<p>National Policy on Public Hygiene¹¹² Politique Nationale en Matière d'Hygiène Publique 2004</p>	<ul style="list-style-type: none"> • This includes several components, which call for defining the public hygiene operational modalities and management structures, harmonizing and disseminating the related laws and promoting hygiene in rural areas generally including schools and hospitals. Some of the activities outlined for rural areas include training village management committees in hygiene and sanitation and supporting them in developing and managing water points and sanitation infrastructures and sensitization and BCC to promote latrine and safe water use.
<p>Land Reform Policy¹¹³ Politique Nationale de Sécurisation Foncière en Milieu Rural (PNSFMR) 2007</p>	<ul style="list-style-type: none"> • The PNSFMR has six "orientations:" recognize and protect legitimate rights of all rural actors to land and natural resources; promote and accompany the development of local legitimate institutions; clarify the institutional framework for conflict management at local level and improve the effectiveness of local conflict resolution; improve management of rural space; put in place a coherent institutional framework for management of rural land; and reinforce capacities of government services, rural associations and civil society in the area of land security.

¹⁰⁹ GOBF 2008.

¹¹⁰ GOBF/MPF 2002.

¹¹¹ GOBF/MOH 2001.

¹¹² GOBF/MOH 2004.

¹¹³ GOBF/MAHRH 2007.

POLICY / STRATEGY	OBJECTIVES AND INTERVENTIONS
<p>Primary Education Development Plan¹¹⁴ Plan Décennal de Développement de l'Éducation de Base (PDDEB) 2000.</p>	<ul style="list-style-type: none"> Burkina Faso has an ambitious ten-year plan (2001-2010) for the development of basic education. The plan is subdivided into four programs with the following aims: 1) to increase primary school enrolment rate from 43 to 70 percent with an emphasis on improving the enrolment rate of girls and in rural areas; 2) to raise the adult literacy rate from its current 26-40 percent; 3) to improve the quality of education, as measured by reduced failure rates, ongoing teacher training and other measures; and 4) to strengthen the management and supervision capacities of educational institutions.
<p>Ministry of Education School Feeding Program</p>	<ul style="list-style-type: none"> MEBA and communities currently implement school feeding in 35 provinces while CRS with Title II resources provides Food for Education (school meals and take-home rations [THR]) in six food-insecure provinces in the regions of the Est, Nord and Centre Nord and WFP provides a similar program in four food-insecure provinces in the Sahel region. WFP's program will continue at least through 2010. As CRS has phased-over its school feeding programs to communities or to MEBA, MEBA has increased its food budget and communities have increased their donations, however, they are unable to fully cover the need.¹¹⁵ MEBA data indicates that school enrolment and attendance is lower in schools when meals are not available. In addition, in schools providing school meals a higher percentage of children successfully pass their grades each year.
<p>National Policy on Social Action¹¹⁶ Politique Nationale d'Action Sociale 2006</p>	<ul style="list-style-type: none"> This policy is linked with other major government policies, such as, the national development and poverty strategies. It identifies 5 priority areas: 1) improving families' living conditions; 2) promoting solidarity among the population; 3) protecting and promoting vulnerable groups; 4) supporting and contributing to HIV and AIDS programming; and 5) strengthening the capacity of institutions. It also identifies priority activities for each area and identifies potential funding.

¹¹⁴ GOBF/MEBA 2000.

¹¹⁵ The community managed programs on average provide meals for two months while the government supported programs provide food for three months; CRS and WFP provide meals and THR for four and eight months, respectively.

¹¹⁶ GOBF/MASSN 2006.

COORDINATING BODY	OBJECTIVES AND INTERVENTIONS
National Food Security Council Conseil National de Sécurité Alimentaire (CNSA)	<ul style="list-style-type: none"> Established in 2006, the CNSA coordinates efforts of government and partners related to food security. The CNSA is composed of 12 government bodies and a range of donors, technical partners and civil society organizations.¹¹⁷ The CNSA is situated in the MAHRH.
National Council for Nutrition Coordination Conseil National de la Concertation de la Nutrition (CNCN)	<ul style="list-style-type: none"> The CNCN coordinates, monitors and advises on the implementation of the National Nutrition Policy.
Coordinator for Agricultural Sector Policies Coordination de Politiques Sectorielles Agricoles (CPSA)	<ul style="list-style-type: none"> The CPSA coordinates the GOBF's many agricultural policies and plans of action, including the development of investment strategies.
National Council for Emergency Response and Rehabilitation Conseil National de Secours d'Urgence et de Réhabilitation (CONASUR)	<ul style="list-style-type: none"> CONASUR is in charge of emergency response, including coordinating the efforts of multiple agencies engaged in responding to a crisis (particularly rapid-onset disasters).
Rural Development Partners' Consultative Framework Cadre de Concertation des Partenaires du Développement Rural (CCPDR)	<ul style="list-style-type: none"> The CCPDR coordinates the efforts of government, civil society organizations and donor partners in agriculture and rural development.

¹¹⁷ CNSA, personal communication.

5.2 USG STRATEGIES AND PROGRAMS

5.2.1 Alignment with the Foreign Assistance Framework

Under the new Foreign Assistance Framework, all USG foreign assistance spending has to be aligned with five key objectives and their program areas, program elements and program sub-elements. This is true for the current DAP. The United States (US) Embassy in Burkina Faso has quite limited funds, including for example a small “Self Help Project” and an Ambassador’s Fund for HIV/AIDS. Burkina Faso receives neither development assistance funds nor Child Survival and Health funds.

5.2.2 USAID Strategies and Programs

The USAID Office of Foreign Disaster Assistance (OFDA) developed a Strategy for West and North Africa for 2008-2010, which identifies three overarching goals to guide the agency in the region: 1) increase capacity to prevent, manage, and respond to acute malnutrition rates rising above emergency thresholds in the region; 2) help stabilize fragile communities to recover from past and current conflicts, mitigate risks from potential conflicts, and help enable communities to transition from conflict to a more development-oriented environment; and 3) reduce the incidence and risks of declared epidemics (e.g., cholera, meningitis, Lassa fever, avian influenza) within affected target populations.¹¹⁸ Priority activities are identified in the sectors of nutrition, agriculture and food security, as well as health, protection, economic market systems, humanitarian coordination and information management.

Based in Ghana, USAID/West Africa supports a range of programs across the region related to food security and nutrition. Although USAID’s presence in Burkina Faso is less visible, limited perhaps by the absence of a mission, Burkina Faso may benefit from activities implemented at regional level. **Table 10** summarizes USAID food security and nutrition programs in Burkina Faso.

5.2.3 USAID/Food for Peace 2006-2010 Strategic Plan

The FFP Strategic Plan is a key document for the design of Title II programs. The definitions and concepts of food security that are laid out in the FFP Strategic Plan, its strategic objective and intermediate results, the underlying conceptual framework used and the target groups identified, are all reflected in the USAID/Burkina Faso FSCF. Some of the new directions in the FFP Strategic Plan are also reflected in the USAID/Burkina Faso FSCF, for example, the focus on food *insecurity* and the emphases given to reducing the risks of, and vulnerability to, food insecurity shocks (including natural, economic, social, health and political shocks) and protecting and building human and livelihood assets. (See **Annex 2** for the FFP Strategic Framework and **Annex 3** for the Expanded Conceptual Framework for Understanding Food Insecurity, which provides the theoretical underpinnings for the FFP Strategic Plan.)

The FFP Strategic Plan is designed to meet the needs of both the chronically food insecure, who suffer from persistent food insecurity over time, and the transitorily food insecure, who have a temporary inability to meet food needs or smooth consumption levels. The strategic objective of the FFP Strategic Plan is “*Food Insecurity in vulnerable populations reduced,*” and its two intermediate results are: IR 1: *Global leadership in reducing food insecurity enhanced* and IR 2: *Title II program impact in the field increased*. Key

¹¹⁸ USAID/OFDA West and North Africa Regional Office 2008.

target groups under the FFP Strategic Plan are those populations at risk of food insecurity because of their physiological status, socioeconomic status or physical security, and/or people whose ability to cope has been temporarily overcome by a shock.

5.2.4 Fiscal Years 2004-2010 Title II DAP in Burkina Faso

The two current Title II DAPs will conclude in 2010 (**Table I I**). Catholic Relief Services (CRS) has been implementing a DAP covering 24 provinces. This program included a large component focused on school health and nutrition, which was implemented in conjunction with the MOH with World Bank funding. The other major components of this DAP included dry season agriculture, market gardening and microfinance, the latter being targeted entirely to women. The Africare Zondoma Food Security Initiative II (ZFSI II) implemented activities related to agriculture and livestock, market gardening, microcredit, training/literacy and community nutrition. The agriculture program included soil and water conservation techniques and improved seed production. The market gardening program produced cash crops in irrigated perimeters. The microcredit program included a component targeted to low-income women. The project built wells for irrigation. Africare implemented literacy training (mostly for women) and community nutrition (Hearth).

5.2.5 Other USG Strategies and Programs

As **Table 12** indicates, the largest USG-funded program in Burkina Faso is the 481 million USD MCC program (2008-2012). This program includes a range of food security related development activities of relevance to the Title II program, but will focus geographically in the west and southwest of the country. The land governance project should facilitate implementation of new land security laws and procedures, which should inform Title II programs' activities related to land cultivation and land access advocacy. Agriculture, road infrastructure and market related activities conducted under MCC should also be examined as they may open up marketing opportunities for food insecure smallholders in northern Burkina Faso.

TABLE 10. SUMMARY OF USAID-FUNDED PROGRAMS RELEVANT TO ACHIEVING FOOD SECURITY OBJECTIVES IN BURKINA FASO

PROGRAM	OBJECTIVES AND INTERVENTIONS
USAID/West Africa Global Food Security Response	<ul style="list-style-type: none"> • FY2008-2009 (extensions anticipated), 150 million USD • Three focus areas: increasing agriculture productivity and production, increasing regional trade in food staples, and promoting sound market principles. • Burkina Faso is not currently the focus country for this effort, but it will benefit from the regional-level GFSR activities such as agricultural research and strengthening of market linkages.
USAID/West Africa Trade and Investment Program	<ul style="list-style-type: none"> • Goals: improving market knowledge and skills of private sector enterprises for trade; improving the business and regulatory environment for private sector-led growth; increasing access to financial services; and facilitating investment in infrastructure and associated governance in the region. • USAID has Trade Hubs in Accra and Dakar, which focus on non-traditional export sectors with value-added potential. • The Hubs train regional entrepreneurs to be internationally competitive and create opportunities to meet overseas buyers, particularly in the United States in support of the African Growth and Opportunity Act.
OFDA/UNICEF Strengthening of Nutrition Surveillance and Information Management Systems in Response to Rising Food Prices in Burkina Faso	<ul style="list-style-type: none"> • 2009-2011, 1.5 million USD • Objectives include support and scale-up of treatment for SAM in communities and facilities; support for implementation of preventive health and nutrition actions; strengthening of information management systems; enhancing interagency coordination; and building government capacity to set up a nutrition surveillance system. UNICEF will support the implementation of national-level nutrition surveys and urban food vulnerability surveys in the two main urban areas twice a year.
OFDA/HKI Integrating Surveillance, Treatment and Prevention of Childhood Malnutrition in Four Countries of West Africa: Burkina Faso, Mali, Niger and Guinea Conakry	<ul style="list-style-type: none"> • 2008-2009, 3.7 million USD • The program builds national capacity to integrate programs that treat malnutrition with prevention in eastern Burkina Faso. This program has focused on integrating growth monitoring and promotion at the village level with referral and treatment for acute malnutrition. The program uses trained village animators who promote messages on the Essential Nutrition Actions as well as trained volunteer grandmothers who lead monthly sessions on health and nutrition issues.
OFDA/HKI Enhanced Homestead Food Production for Improved Food Security and Nutrition in Burkina Faso	<ul style="list-style-type: none"> • 2009-2011, 1.7 million USD • The program focuses on a package of services designed to improve the nutritional status of infants, young children and mothers through improving homestead food production (HFP) techniques and promoting the adoption of improved nutrition and care practices.
OFDA/WFP Response to High Food Price Crisis in Burkina Faso	<ul style="list-style-type: none"> • 2008-2009, 4.3 million USD • The program distributes vouchers to urban and peri-urban highly food insecure households in Ouagadougou and Bobo-Dioulaso.

TABLE II. CURRENT USAID TITLE II DAPS IN BURKINA FASO

CATHOLIC RELIEF SERVICES BURKINA FASO PROGRAM (FY2004-2009) ¹¹⁹

<p>Geographic Coverage: 24 provinces</p> <p>Direct Beneficiaries (Estimated) (2004-2010): SO1: 12,126 SO2: 676,825 SO4: 23,000 SO5: 13,033</p>	<p>Implementing partners:</p> <ul style="list-style-type: none"> • GOBF partner for school feeding: Ministry of Basic Education and Literacy (MEBA) • OCADES-CARITAS, Catholic diocese based in Kaya • Tin Tua, national NGO specializing in natural resource management • Federation Wend Yam, national NGO, implementing partner for agriculture • GRAINE-SARL, microfinance institution established under DAP SO4 activities <p>Objectives and Activities:</p> <ul style="list-style-type: none"> • SO1: Increased value of off-season/staple crop production for resource-poor farmers. Activities: market gardening, soil and water conservation, school gardens. • SO2: Increased educational opportunities for Burkinabe children, especially girls. Activities: school feeding, THR, IEC activities, with THR for girls conditional based on a 90% attendance rate. School feeding activities such as on-site meals and take home rations, are currently implemented in six provinces in conjunction with MEBA. • SO3: Improved health and nutritional status of primary school children. (NOTE: this was funded by the World Bank via the GOBF.) Activities: latrine construction, trainings, distribution of medications. • SO4: Increased income for poor rural women. Activities: microcredit and training. • SO5: Increased food availability to highly food insecure people (general relief). Activities: food distribution to targeted highly food insecure people, commodity management training.
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AFRICARE ZONDOMA FOOD SECURITY INITIATIVE II (ZFSI II) (FY2004-2009) ¹²⁰

<p>Geographic Coverage: Zondoma Province</p> <p>Direct Beneficiaries (Estimated) (2004-2010): SO1: 36,000 SO2: 35,000 SO3: 20,000 SO4: 10,000</p> <p>Humanitarian Assistance: 10,000</p>	<p>Implementing partners: N.A.</p> <p>Objectives and Activities:</p> <ul style="list-style-type: none"> • SO1: Facilitate farmer access to the inputs, training, and safety nets needed to adopt higher yielding, drought resistant, rain fed, and irrigated crop production systems. Activities: market gardening, improved agricultural and livestock production techniques, cash crop marketing. Food for work. • SO2: Protect and build the community and HH level assets that individuals need to develop more diversified income earning opportunities. Activities: IGA, microcredit, community banks. • SO3: Protect/build human capabilities with increased access to nutrition education, water, programs to rehabilitate moderately malnourished infants, HIV/AIDS support. Activities: nutrition education, water, management of acute malnutrition, HIV/AIDS. • SO4: Provide technical, literacy, management, and entrepreneurial training courses to positively influence decisions affecting food security. Activities: literacy, other trainings. Food as an incentive.
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¹¹⁹ CRS 2006 and CRS 2008.

¹²⁰ Africare 2007.

5.3 OTHER STRATEGIES AND PROGRAMS

5.3.1 Other Donor Activities

Two large World Bank-funded programs with relevance to food security include the maternal and child health and nutrition (MCHN) project (World Bank and MOH/DN) and the school health and nutrition project (World Bank and GOBF/MEBA). The Global Fund to Fight AIDS, Tuberculosis and Malaria also has three grants ongoing and two pending (**Table 12**). ECHO is implementing a large food security, nutrition and health program in Burkina Faso, and starting a malnutrition program in the Sahel.

5.3.2 Other UN and NGO Activities

WFP has a country program, a Protracted Relief and Recovery Operation (PRRO) and an Emergency Operation (EMOP) ongoing in Burkina Faso. WFP is currently preparing a new country program. The PRRO focuses mainly on maternal and child nutrition, and the EMOP focuses on vouchers for the urban food insecure. WFP works throughout northern Burkina Faso; therefore, the Title II program should ensure coordination with WFP in areas where WFP is operating. FAO is implementing a range of activities in Burkina Faso related to rain-fed production, market gardening and livestock. EC Food Facility funding will enable the large scale-up of seed multiplication activities for 2009. UNICEF is working to strengthen health and nutrition services in facilities, as well as funding NGOs to work in community-based nutrition programming. UNICEF also does some work in water, sanitation and hygiene. NGOs implementing nutrition and food security programs with relevance to the Title II program include Helen Keller International, Terre des Hommes, Nutri-Faso/GRET, IRD and CRS.

TABLE 12. SUMMARY OF OTHER STRATEGIES AND PROGRAMS RELEVANT TO ACHIEVING FOOD SECURITY OBJECTIVES IN BURKINA FASO

USG PROGRAMS	OBJECTIVES AND INTERVENTIONS
Millennium Challenge Corporation (MCC)	<ul style="list-style-type: none"> • 2008-2012, 481 million USD¹²¹ • The GOBF's MCC Compact was approved in November of 2008. This follows a successful MCC threshold program from 2006 to 2008 that, in partnership with USAID, helped improve girls' education by increasing their enrolment and attendance while decreasing their dropout rate in the 132 schools supported by the project. The new compact will include the following components: 1) Rural Land Governance Project (60 million USD) – Legal and procedural change and communication; institutional development and capacity building; and site-specific land tenure interventions. 2) Agriculture Development Project (142 million USD) – Water management and irrigation, diversified agriculture and value chain; and access to rural finance. This project will focus geographically on intensively managed and irrigated agricultural perimeters in the west and southwest of Burkina Faso. 3) Roads Project (194 million USD) – Development of primary roads and rural roads in the west and southwest of Burkina Faso; capacity building and technical assistance; and an incentive matching fund for periodic road maintenance. 4) BRIGHT 2 Schools Project (29 million USD) – Construction of classrooms in 132 "girl friendly" schools for grades 4 through 6, as well as borehole drilling, meal provision to school children and other activities.
President's Malaria Initiative (PMI)	<ul style="list-style-type: none"> • 2009-2010, 6 million USD • This national program will target pregnant women and children under 5. It will focus on the provision of insecticide treated nets (ITN), indoor residual spraying in selected areas, malaria in pregnancy (presumptive treatment), malaria diagnosis and treatment. The program also builds the capacity of the national malaria control program and conducts M&E. One year is funded, but five total years are anticipated.
President's Neglected Tropical Diseases Initiative (NTD)	<ul style="list-style-type: none"> • 2007-2011 • Burkina Faso is a priority country for the NTD Initiative, which started in 2006 and aims to address five neglected tropical diseases through integrated drug treatment. The five NTDs include lymphatic filariasis (elephantiasis), schistosomiasis (bilharzia; snail fever), trachoma (blinding eye infection), onchocerciasis (river blindness) and soil-transmitted helminthiasis (intestinal worm infection). The NTD Initiative will be conducted by USAID and the Centers for Disease Control and Prevention (CDC). The program is implemented in Burkina Faso by RTI International.

¹²¹ MCC 2008.

NON-USG PROGRAMS	OBJECTIVES AND INTERVENTIONS
World Bank and GOBF Ministry of Education	<ul style="list-style-type: none"> In 2004, three NGOs (CRS, FDC and HKI) joined forces to support MEBA, in starting a school and nutrition program funded by the World Bank to address health and nutrition problems among schoolchildren. The program now operates in 25 of Burkina Faso's 45 provinces with plans to expand and cover schools in all provinces. The program is implemented in partnership with MEBA staff and provides deworming medication, vitamin A and iron supplementation along with teacher training in health and curriculum materials. The NGOs are in the process of harmonizing their implementation approaches and curriculum materials prior to further scale-up.
World Bank and GOBF Ministry of Health	<ul style="list-style-type: none"> In 2008, the World Bank awarded a grant to Burkina Faso for the Health Sector Support and Multi-sectoral AIDS Project (HSSMAP), to be implemented by the MOH, Permanent Secretary of the National AIDS Council. Objectives include meningitis outbreak control in the hardest hit districts, and the acceleration of essential health and nutrition activities at family and community levels. The nutrition component is expected to be implemented in five initial priority regions (out of the thirteen in Burkina Faso), including Sahel, Nord, Centre Ouest, Cascades and Sud-Ouest Regions.
Global Fund to Fight AIDS, Tuberculosis and Malaria	<ul style="list-style-type: none"> The Global Fund has awarded three grants (for HIV, malaria and TB), and two others are pending approval (for malaria and TB). The GOBF National Council for the Struggle against HIV/AIDS and STIs oversees all three projects. The \$28.4 million Extension and Strengthening of the Fight against STI and HIV/AIDS project (2007-2011) provides access to care and antiretrovirals for PLHIV, support to orphans and other vulnerable children, HIV testing, extension of PMTCT, and strengthening of care for patients co-infected with HIV and TB.¹²² NGOs are fully involved partners and implementers of this project. The Strengthening the Fight against Malaria in Burkina Faso Project (2008-2010, 16.5 million USD), which aims to improve malaria treatment in facilities, increase the use of INTs (especially by pregnant women and children under 5), and strengthen the capacities of the national malaria control program.¹²³ The Fight against Tuberculosis Project (2007-2009, 10.3 million USD) aims to increase the detection and successful treatment of TB (particularly among those co-infected with HIV) and to support the National Tuberculosis Control Program.¹²⁴
African Union Comprehensive Africa Agriculture Development Programme (CAADP)	<ul style="list-style-type: none"> The Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD) has been launched in Burkina Faso.¹²⁵ The GOBF identified a country focal point in the Ministry of Agriculture for the implementation of the CAADP agenda in the country, and national consultative and diagnostic work is being conducted by stakeholders during the 'evidence based planning' phase.
ECOWAP	<ul style="list-style-type: none"> In Burkina Faso and other Economic Community of West African States (ECOWAS or CEDEAO) countries, the Regional Agricultural Policy for West Africa (ECOWAP) is being aligned with the implementation of CAADP agenda. After adopting the ECOWAP in 2005, ECOWAS developed a Regional Agricultural Investment Program (<i>Programme Régional d'Investissement Agricole [PRIA]</i>).

¹²² Global Fund 2009.

¹²³ Global Fund 2008. The follow up proposal for Round 8 that is pending approval is "Scaling-up Malaria Control Interventions in Burkina Faso (MEILUP-BF).

¹²⁴ Global Fund 2007. The follow up proposal for Round 8 that is pending approval is "Strengthening Tuberculosis Control Based on Stop Tuberculosis Strategy."

¹²⁵ African Union/CAADP 2008.

European Commission Food Facility	<ul style="list-style-type: none"> Burkina Faso has been allocated €23.7 million to improve food production and food security under the EC's Food Facility (2009-2011).¹²⁶ Projects are expected to start in November and December 2009, with much of the funds being implemented through FAO and WFP.¹²⁷
CILSS	<ul style="list-style-type: none"> In 2000, CILSS adopted the Strategic Framework for Sustainable Food Security (<i>Cadre Stratégique de Sécurité Alimentaire Durable dans une Perspective du Lutte contre la Pauvreté au Sahel</i> [CSSA]) as its overarching food security framework for the CILSS region. To guide operationalization of the CSSA, CILSS developed an Operational Strategy for Regional Food Security (<i>Stratégie Opérationnelle de Sécurité Alimentaire Régionale</i> [SOSAR]).¹²⁸ CILSS will also work with the Sahel and West Africa Club (<i>Club du Sahel et de l'Afrique de l'Ouest</i> [CSAO]) to implement the PRIA sub-project Prevention and Management of Food Crises and Other Natural Disasters (<i>Prévention et Gestion des Crises Alimentaires et Autres Calamités Naturelles</i> [PRIA/PREGEAC-ACN]). CILSS also hosts and supports an initiative entitled Nutrition, Food Security and Public Policy in the Sahel (<i>Nutrition, Sécurité Alimentaire et Politiques Publiques au Sahel</i> [NUSAPPS]). With support from ECOWAS and technical assistance from IRD, NUSAPPS aims to improve the integration of nutrition data into assessment and analysis, improve surveillance and strengthen early warning in the Sahelian sub-region.¹²⁹
Japanese Government	<ul style="list-style-type: none"> In September of 2008, a three-year program funded by the Japanese Government to eliminate early marriage in Burkina Faso was launched in collaboration with MSAN, UNFPA, UNICEF and the Population Council in selected sites in the regions of Centre Sud, Est, Sahel, Centre Est and Centre Nord. The program building on the lessons learned from a pilot project includes activities for married girls, such as professional training, support, saving clubs and improved access to health services. In addition, adolescents are supported through education and advocacy activities that promote the legal age of marriage. Education opportunities for adolescents in school are increased through a program which pays their school fees; another program component provides literacy training for adolescents not in school.
ECHO	<ul style="list-style-type: none"> ECHO, in addition to supporting the MOH/DN, is contributing to the joint donor funded "<i>panier commune</i>" for health. They have been directly supporting NGOs, such as MSF, TdH, HKI, ACF-France, CR-Belgium, MSF-France, HELP, SC-UK and SC-Canada in implementing emergency and development nutrition programs. This combined funding for 2007 and 2008 was an estimated 20 million USD for the NGO supported interventions, and is about 6 million USD this year. Current programming such as Maternal and Infant Health (<i>Santé Maternelle Infant</i>, SMI), emphasizes improving the quality of health services through training and supporting the roll-out of IMCI and C-IMCI, integrating prevention and treatment for malnutrition services at health centers and linking these services with community-based malnutrition screening and health and nutrition education. Some of the NGOs are also implementing a system with health centers of subsidized and/or free health care for the poor, pregnant women and young children. In addition, for 2009, ECHO has developed a plan to fight malnutrition in the Sahel that focuses on 1) improving the information and data on acute malnutrition, 2) interventions to address acute malnutrition including provision of care, action research and risk reduction; and 3) increasing advocacy and public awareness of the problem of acute malnutrition. It includes the countries of Niger, Mali, Chad and Mauritania in addition to Burkina Faso, and is funded at approximately 17 million USD.

¹²⁶ EC 2009.

¹²⁷ ECHO personal communication

¹²⁸ CILSS 2003.

¹²⁹ NUSAPPS, personal communication with Catherine Chalazy.

UN World Food Programme (WFP)	<ul style="list-style-type: none"> WFP implements a Country Programme, a Protracted Relief and Recovery Operation (PRRO) and an Emergency Operation (EMOP). The objectives of the PRRO are to: reduce levels of moderate acute malnutrition among children under three and pregnant and lactating mothers, and to enhance the GOBF's capacity to implement the National Plan of Action for Nutrition, particularly the aspects related to strengthening household food security and setting up a nutrition surveillance system.
UN Food and Agriculture Organization (FAO)	<ul style="list-style-type: none"> FAO implements several types of interventions to support producers, in line with their global Initiative on Soaring Food Prices: inputs and training for rural food crop production for the main season; tools and inputs for vegetable gardening during the dry season (rural, urban and peri-urban); and livestock interventions.¹³⁰ The current seed multiplication projects run by FAO will be scaled up with EC Food Facility funding. Under the Food Security Information for Action Program, FAO is developing a digital Dynamic Food Security Atlas, which should be available in 2009.¹³¹
UNICEF	<ul style="list-style-type: none"> UNICEF plays a critical role in supporting nutrition programming in Burkina Faso. One role is its provision of technical assistance to the MOH/DN. In addition, it provides training, equipment and supplies, such as, ready-to-use therapeutic food for the management of SAM, trains health staff in the nutrition aspects of IMCI, and leads a working group that is identifying nutrition BCC materials. They recently awarded a total 1.7 million USD in one-year grants to 8 NGOs to implement community-based nutrition programming. See OFDA section for UNICEF's additional nutrition activities. UNICEF is also active in the area of water and sanitation. UNICEF's activities in this area include the development of water points, sensitization and BCC on hygiene, infrastructure for sanitation and public BCC on the use of sanitation infrastructure, organization of communities to manage water points and water storage and working on simple methods for water treatment.
Helen Keller International (HKI)	<ul style="list-style-type: none"> HKI has supported national scale vitamin A supplementation since 2000. It is building fortification capacity among industry partners. Through research, viable vitamin A rich orange-fleshed sweet potatoes were identified and then promoted through community-based campaigns targeted to sweet potato and cereal producers. The project is small, currently operating in two provinces in the Eastern region. Also in the Eastern region, HKI implements a community and school garden program, which provides nutrition and gardening education and supports women's involvement in community and household gardens. Recently, the approach of using grandmothers to transmit nutrition and health advice has been integrated into a number of HKI's projects. For additional information on HKI activities see the section on OFDA funded programs.
Nutri-Faso	<ul style="list-style-type: none"> NutriFaso, with partners, such as Groupe de Recherche et d'Echanges Technologiques (GRET), is producing fortified low-cost complementary foods and promoting them. In addition, in the Eastern region it is piloting a community-based health and nutrition program along with the local production and sale of a fortified food for women and complementary foods for children 6-23 months of age. The initial evaluation findings indicate improved nutrition knowledge and an increase in women feeding colostrum to their infants in intervention communities.
IRD	<ul style="list-style-type: none"> IRD provides nutrition and food security technical assistance to the UN and a number of NGOs. Currently their projects include monitoring food security Ouagadougou and Bobo-Dioulasso and conducting program evaluations. One evaluation involves a food voucher program and the other is of a program producing an improved weaning food and providing nutrition education. It is also part of the CILSS/NUSSAPPS regional partnership.
CRS	<ul style="list-style-type: none"> In addition to the Title II program, CRS implements an urban food voucher program with Gates Foundation funding.

¹³⁰ FAO personal communication.

¹³¹ FAO 2009b.

6. COUNTRY FRAMEWORK TO REDUCE FOOD INSECURITY IN BURKINA FASO

6.1 ROLE OF USAID PROGRAMS FUNDED BY OTHER ACCOUNTS IN SUPPORTING IMPROVEMENTS IN FOOD SECURITY

Most bilateral assistance from the USG to the GOBF has been programmed by USAID, particularly the FFP Title II Program, FFP/West Africa and OFDA/West Africa (see **Section 5.2**). The FFP Title II program represents the largest USG effort, in financial terms, to reduce chronic food insecurity in Burkina Faso. The USAID Programs funded by other accounts can contribute to the objectives of the Title II Program, for example by supporting research on improved production techniques in semi-arid regions and strengthening marketing institutions and public-private partnerships.

6.2 ROLE OF THE TITLE II MULTI-YEAR ASSISTANCE PROGRAM (MYAP) IN ADDRESSING FOOD INSECURITY

6.2.1 Objectives, Desired Outcomes and Indicators

In Burkina Faso, the overall objective for the multi-year Title II program is “*to reduce food insecurity among chronically food insecure people in Burkina Faso.*” As captured in the FFP Strategic Objective for 2006-2010 and discussed in **Section 4.3.2**, the target groups for the Title II program should include:

- Chronically food insecure households, including poor and FHH located in the chronically food insecure, deficit regions of Nord, Plateau Centrale, Centre-Nord, Sahel and (northern) Est Regions
- Pregnant and lactating women with an emphasis on pregnant adolescents and adolescent mothers
- Children under 5, with an emphasis on those under 24 months

The Title II programs should be designed to contribute to improving food availability, access and utilization and to reducing the vulnerability to food insecurity of the individuals, households and communities targeted by the programs. Title II programs should also enhance resiliency among food insecure households, by increasing skills and assets, diversifying livelihoods and expanding people’s ability to deal with and recover from the shocks that most frequently compromise their food security.

Program success at the impact level should be measured in terms of *both reducing child malnutrition and improving household access to food*. Child malnutrition, measured by both height-for-age and weight-for-age in children under 5, will measure the success of the entire program, and particularly the MCHN-focused activities. Household access to food will be measured by household food consumption (months of adequate food provisioning and household dietary diversity score).

6.2.2 Program Priorities

The FSCF team identified the program priorities and approaches for the next Title II programs based on:

- Interviews with a range of GOBF, bilateral, multilateral, UN and NGO stakeholders
- Semi-structured group interviews with community members and beneficiaries of the current DAPs
- Key GOBF, bilateral and multilateral documents, including the national Poverty Reduction Strategy Paper, the Rural Development Strategy, the Operational and Program Strategy for Sustainable Food Security and Poverty Reduction, the National Nutrition Policy and Protocols for Management of Acute Malnutrition
- Mid-term evaluation findings and recommendations for the two current DAPs

The Title II program in Burkina Faso should give priority to activities expected to achieve the three Program Priorities (**Table 13**): to strengthen and diversify agricultural production and productivity; to increase and diversify household incomes; and to reduce chronic malnutrition among children under 5 and pregnant and lactating women.

Priority Activities within each of these Program Priorities are identified and discussed below. These priorities reflect a range of assessments of the extent, distribution and determinants of food insecurity and malnutrition in Burkina Faso. The priorities were also identified in the context of the GOBF and USAID strategies and priorities for the country, with the intention of supporting the vision of GOBF and its partners to reduce food insecurity as part of its overall poverty alleviation strategy. Finally, the priorities discussed below reflect the observations and expertise of the authors and the experiences of current Title II partners accumulated over more than a decade in Burkina Faso. The recommended activities build on experience to date but also call for Title II programs to more effectively address the range of determinants of food insecurity in Burkina Faso, particularly related to health, and to more actively seek synergies and strategic partnerships. Prospective Awardees should prioritize, identify and design project activities based on their local assessments.

TABLE 13. PROGRAM PRIORITIES AND PRIORITY ACTIVITIES FOR TITLE II PROGRAM IN BURKINA FASO

PROGRAM PRIORITY	PRIORITY ACTIVITY
1. Strengthen and diversify agricultural production and productivity	<ul style="list-style-type: none"> Transforming smallholder agriculture from subsistence cereal farming to integrated food and cash crop production Strengthening integration of livestock and poultry ownership in smallholder production Enhancing use of improved natural resource management techniques
2. Increase and diversify household incomes	<ul style="list-style-type: none"> Expanding market gardening at community and household levels Strengthening producers' capacity to market produce and livestock Expanding access to finance for smallholder households through microcredit, IGA and complementary services Expanding women and adolescent girls' literacy and livelihood capacity
3. Reduce chronic malnutrition among children under 5 and pregnant and lactating women	<ul style="list-style-type: none"> Preventing malnutrition among children under 2 Improving IYCF practices Expanding prevention and treatment of childhood illness Enhancing access to water and sanitation, and improving hygiene practices Improving maternal nutrition Linking with programs focused on the management of acutely malnourished children Increasing dietary diversity and quality through home gardens and a small livestock program

6.2.2.1 Program Priority 1: Strengthen and diversify agricultural production and productivity

Except pure pastoralists, households in northern Burkina Faso increasingly depend on agricultural cultivation for subsistence, and increasing and diversifying this production is essential to achieving sustainable reductions in chronic food insecurity. For Title II implementing agencies, the strategy should adopt a set of programming principles:

- Integrated programming to enhance synergies and impact for targeted households and communities, including poor, labor-poor and FHH
- Behavior change promotion and strategy
- Coordination and capacity strengthening for partner institutions in GOBF, international organizations, communities and private sector
- Integration of gender into design and implementation
- Increased emphasis on value chain analysis
- Increased planning and capacity for sustainability

These six approaches constitute an operational strategy that will be discussed more thoroughly under **Section 6.2.3** (Key Design Considerations).

Three priority activities are recommended to achieve the program priority “*Strengthen and diversify agricultural production and productivity*”:

- Transforming smallholder agriculture from subsistence cereal farming to integrated food and cash crop production
- Strengthening the integration of livestock and poultry ownership in smallholder production
- Enhancing the use of improved natural resource management techniques

Each of these priority activities is discussed further below, including technical considerations for implementation, issues for integration of gender and vulnerability reduction, and opportunities for synergy and linking with other institutions.

Transforming smallholder agriculture from subsistence cereal farming to integrated food and cash crop production

Burkina Faso’s smallholder households put an average of three-to-six ha under cultivation. In the northern regions, smallholder farmers put most of the plots to the staple cereals of sorghum, millet, maize and fonio for their own consumption, with increasing diversification into cowpeas, maize, sesame and groundnuts. Smallholder agricultural practices do little to protect farmers from the erratic and poor rainfall, land degradation and isolation from markets that characterize the area. Use of inputs and improved agricultural techniques is very low, and the smallholder production system does not effectively position producers to earn a profit from domestic or regional markets. The Title II program should aim to transform smallholder lowland agriculture from subsistence cereal farming to integrated food and cash crop production designed to generate revenue, diversify livelihood activities and enhance household dietary diversity, particularly for women and children. This should also have the effect of reducing out-migration and ensuring household labor is available for household production activities. The Title II program should also involve advocacy to GOBF and civil society organizations to promote the fair, transparent, complete implementation of new land laws, and to ensure that the rights of the poor and of women are publicized and actualized.

An effective strategy for this transformation would include the following three components, which are discussed further below: 1) improved techniques for smallholder agricultural production; 2) improved crop selection to provide income, boost dietary diversity and reduce the vulnerability of households; and 3) improved techniques to reduce post-harvest losses.

Improved techniques for smallholder agricultural production. Increased use of improved agricultural techniques is essential to boost smallholder productivity of food and cash crops. The Title II program should aim for adoption of a minimum set of improved practices, since research demonstrates that it is the adoption of several techniques (e.g., water conservation and fertilizers) together that provides large

productivity gains.¹³² Examples of improved agricultural techniques that could be considered for Burkina Faso, many of which have been promoted successfully, are listed in **Box 4**. Prospective Awardees should consider consulting with research institutions and agencies on improved agricultural techniques, including USAID/WA Agribusiness Project, INERA (International Institution for Agricultural Research), ICRISAT and the International Center for Fertilizer and Soil Fertility.

Because of the decentralization of GOBF technical extension services (including Agriculture Services), and the very limited financial and human resources at sub-national levels, availability of extension services for farmers as well as agricultural monitoring and evaluation below the national level is very poor. Prospective Awardees should consider this when developing a program approach for dissemination of information and technical assistance to farmers. Possible approaches include Lead Farmer, Farmer-to-Farmer, Farmer Field School, rural information centers, mass media, extension materials and field days. The approach should facilitate participation by women.

Organizing producers is essential. Widely dispersed households and poor transport infrastructure drive up the costs of linking producers to markets, undermining their competitiveness. Because the smallholder production system is oriented towards subsistence, the benefits of organization – a strengthened position vis-à-vis traders, increased access to credit, the sharing of knowledge and capital – are not widely shared in rural northern Burkina Faso. Cotton producers in the west of the country provide a counterexample of a high degree of organization, professionalization and marketing capability. Organizing producers will be essential for producers embarking on cash crop production, such as cashews, to ensure efficiency, profitability and consistency in production techniques, and to ultimately reduce transportation and transaction costs for traders, processors and exporters. Creating organized groups of women specifically provides many advantages, including ensuring the resources remain in control of women, women receive the technical and management trainings, and women participate fully in management committees – all of which could be jeopardized in mixed-sex groups. Advocacy is needed to promote women's crop production on their own homestead gardens (the yields of which remain under their control, unlike production from the main household plot, which is put into the husband-controlled granary), and to increase women's access to land. Advocacy efforts should be guided by existing gender related strategies and research in the cultural context of Burkina Faso and West Africa.

¹³² Zougmore et al (2004).

BOX 4. IMPROVED AGRICULTURAL TECHNIQUES

- Use of improved seeds: Improved seed production activities should be considered for inclusion by prospective CSs (the Title II DAP distributed improved seeds for millet, sesame, peanut, okra, tomato, cabbage, eggplant and hibiscus). Prospective CSs could incorporate improved seed production and dissemination activities to ensure supply through local formal and informal supply chains.
- Use of fertilizer: Organic manure improves soil structure and productivity in Burkina Faso, particularly when combined with mini-catchment techniques like demi-lunes and Zai holes. Organic manure pits (*fosses fumières*) have been successfully promoted by the Title II project. Composting of millet stalks or other crop residues, is less effective. During the DAP, the distance required to transport fertilizer was a key constraint to adoption of a fertilizer technique.
- Use of water conservation techniques: The use of mini-catchment techniques such as Zai holes and demi-lunes have been shown to boost productivity in the Sahel, and adoption rates are high in a well-designed program with effective BCC.
- Microirrigation: Microirrigation strategies, based on an assessment of water access year-round and appropriate technologies for the project area, are essential to successful market gardening.
- Crop rotation and intercropping – Trees, ground cover, cereals and legumes.
- Improved planting techniques – Planting in rows, seedling nurseries, transplanting and raised beds.
- Use of soil conservation/anti-erosion techniques – Land reclamation and soil fertility measures are integral to any successful agricultural program.
- Use of mechanization – Ox ploughs and tractors may be considered.

Crop selection to provide income, boost dietary diversity and reduce vulnerability of households. The agriculture program should be designed to generate revenue, increase dietary diversity of family members and reduce the producers' vulnerability to production shocks (e.g., poor rainfall). This implies that prospective Awardees bear several principles in mind when developing project activities:

- Drought resistant crops (e.g., sorghum, millet, sesame) can be combined with more water intensive but higher return crops (e.g., maize, vegetables), for example.
- Short cycle crops should be included to reduce the risk to climate induced crop loss. Short cycle varieties in use in the Title II program areas include peanut, sorghum, cowpeas, sesame and millet.
- Men and women are often responsible for cultivation of different crops, so selection of crops should be sensitive to these gender norms (which vary by ethnic group in Burkina Faso). Examples of crops that women cultivate in northern Burkina Faso include millet, cowpeas, beans and vegetables.
- Short-term profitability is a key parameter for selecting cash crops.
- While improved seeds should be considered, crops with high input requirements (and thus financial costs) up front should be carefully considered before selection, given the constraint of access to credit faced by many

smallholder farmers. Additionally, because chronically food insecure households are disproportionately female-headed and labor-poor, crops and improved agricultural techniques with low labor requirements and laborsaving technologies should be included given that many target households will have low labor availability.

- Smallholder farmers normally consume a portion of their cash crops, especially the portion likely to bring a low price on the market, and should be knowledgeable about storage and preparation of these crops.

To maximize revenue to producers from cash crops, a value chain approach should be adopted. This includes a market analysis, establishment of information and support/training systems, and quality control systems. Prospective Awardees should consult work done by the USAID/WA Trade Hub project and regional research institutions to identify the crops that will generate the greatest return for producers. The USAID/WA Trade Hub project has developed value chain studies for shea butter and cashews. The GOBF has identified organic agriculture as a niche with high potential for long-term development in Burkina Faso, although the process of obtaining organic certification can take several years. Recommendations for cash crop selection are discussed under **Section 6.2.2.2**.

Improved techniques to reduce post-harvest losses. Post-harvest losses constrain food security in rural Burkina Faso, especially for fruits and vegetables, fish, milk and forest products. Lack of government or private investment into storage facilities, lack of a cold chain, and inadequate household storage practices all contribute to post-harvest losses. The existing large-scale grain storage structures are managed by SONAGESS (for national food stocks) and by private grain traders. The main causes of post-harvest losses in Burkina Faso include birds, insects (particularly for cowpeas), molds/rotting, rodents, theft and fire. The fundamental strategies that Burkinabe smallholders should utilize to minimize post-harvest losses relate to food hygiene, protection from moisture and temperature swings, and protection from pests. Specific techniques appropriate to the local context include drying, storage in containers or sacks, placement in household grain storage structures (granaries) designed to minimize risk of water or excessive heat exposure, use of chemical treatments (insecticides), and for fish and meat products in particular, salting, smoking, drying and fermenting. Community-level food storage structures such as grain banks can also be used. The Title II program has experience with improved household storage structures and improved storage sacks.

Prospective Awardees should consult with research institutions engaged in this area, including ICRISAT and the International Institute of Tropical Agriculture (IITA). Behavior change communications for post-harvest handling should be integrated into a broader agriculture BCC strategy. Women and men have specific roles vis-à-vis post-harvest handling for different crops, which would need to be considered in designing project activities.

Strengthening integration of livestock and poultry ownership in smallholder production Livestock – cattle, small stock and poultry - are an essential component of the smallholder farming system in agropastoral Burkina Faso. Nearly all households in northern Burkina Faso keep animals of some kind. Most (70 percent) of Burkina Faso's cattle are managed in a transhumant production system, either within the north of the country ("short transhumance") or from north to south ("great transhumance").¹³³ Controlled by men, cattle are kept as assets to be liquidated in case of an emergency, a source of milk for household consumption and source of the manure and draught power for crop fields. The second-largest export of Burkina Faso, livestock are exported to Côte d'Ivoire, Ghana, Benin and Senegal annually. Yet far more common in agropastoral Burkina Faso are goats, sheep and poultry, which are more suitable to average and poor smallholders' financial situation and can be kept by women. Shorter gestation periods allow for more rapid reproduction and herd regeneration compared to cattle. The practice of *embouche*, or fattening of animals for sale, is widely practiced. Domestic consumption of meat and milk, and thus demand for meat and poultry grown in Burkina Faso, are growing faster than supply. Intensive meat and milk production techniques are lacking and the sector is underexploited.¹³⁴ The milk production sub-sector is very poorly developed, and dairy products are imported into Burkina Faso every year. The sector suffers for lack of financing for development. The availability and quality of extension services is poor because of decentralization, lack of funding for extension at regional level and marginalization of the Ministry of Livestock.

In 2000, the GOBF adopted the Action Plan and Program for Investment in Livestock Sector of Burkina Faso (*Plan d'Actions et Programme d'Investissement du Secteur de l'Élevage au Burkina Faso* [PAPISE]). The GOBF aims to increase animal productivity, putting the emphasis on improving genetic quality of animals, improvement of feeding, improvement of health and rational management of herds. The GOBF also aims to develop the milk sector to replace imports with domestic production, improve the health of animals taken to market and develop integrated agriculture-livestock. These policies, though important, do not affect poor households that can only own poultry. The GOBF established the Program for Development of Village Aviculture (*Programme de Développement de l'Aviculture Villageoise* [PDAV]) which promotes village-level poultry farming and poultry vaccinations (e.g., for Newcastle Disease), including by poor households.

To be pro-poor and effectively target women and FHH, the Title II program must emphasize poultry production first, followed by sheep and goats.¹³⁵ Poultry-focused projects will be more likely to reach the poor, who often own few or no goats, sheep or cattle. Experience in Title II indicates that poor households are more likely to adopt a set of recommended improved techniques for poultry than for goats or sheep, which

¹³³ FAO 2005.

¹³⁴ GOBF/MAHRH 2003.

¹³⁵ Gning 2005.

require greater resources up front (e.g., cash, water, labor and equipment required to construct stables).¹³⁶

It is recommended that a livestock program consider including the following three components:

- Promotion of improved livestock production techniques
- Support for improved access to livestock inputs and extension
- Strengthening market linkages of smallholder producers

In addition, nutrition education should include the importance of consuming animal products for pregnant and lactating women, infants and young children. This is discussed further under Program Priority Three, Priority Activity “Increasing dietary diversity and quality through home gardens and a small livestock program.”

Promotion of improved livestock production techniques. Promotion of improved livestock production techniques should focus on poultry, goats and sheep to minimize exclusion of the poor. Examples of improved livestock production techniques include:

- Livestock structures – Chicken coops/houses have been used successfully in Burkina Faso. Fencing promotion can be successful if low-cost materials are available and successfully block passage by the animals. Traditional and improved mechanisms can be used to prevent predators from attacking small ruminants.
- Improved feeding – Harvesting and storage of natural forage during the rainy season can provide feed for small and large ruminants during the dry season. Provision of potable water to animals can reduce illness. For free-range poultry, a range of locally available and improved feed resources can be proposed (e.g., shrub leaves, termites and other insects, fruits and small animals) to supplement and improve the diet.
- Improved veterinary services – discussed below

Relations between herders and farmers are complex and should be considered in the planning of livestock programs. In a pattern found throughout the Sahel, transhumant herders travel with their livestock southward during the dry season in search for pasture (hence regions are identified as ‘cattle transit zones’ in Figure 4). Conflict over water and pasture can be sparked when rainy seasons are poor, and are sorted out through the traditional channels, and increasingly via government judicial processes.¹³⁷ In general, however, the seasonal migration of livestock serves agriculturalists as well (particularly in the form of manure left on fields before the land cultivation period starts).

Prospective Awardees are encouraged to consult with institutions conducting research on animal husbandry in arid areas, such as the International Livestock Research Institute (ILRI).

¹³⁶ Africare 2007.

¹³⁷ Gning 2005.

Support for improved access to livestock inputs and extension. Given the decline in availability and quality of GOBF technical services in the livestock sector with decentralization, community-based health services are needed for poultry and small ruminants. State law mandates that only GOBF staff can vaccinate livestock, but poultry are exempt from the regulation, providing an opportunity for Title II to support village vaccination activities of direct interest and relevance to poor smallholders. Large-scale vaccination campaigns for free-flock poultry are neither efficient nor sustainable, but Title II experience indicates that village poultry vaccinators can be sustainable if a small fee is charged per service (providing an income-generating opportunity for women). Training is required in vaccination, business skills, and literacy and numeracy for these service providers. Links must be established to suppliers for vaccines and any other needed materials. Monitoring of disease outbreaks (e.g., Newcastle Disease, Avian Influenza) should also be planned.

Strengthening market linkages of smallholder producers. Domestic demand for poultry exceeds supply, but research into marketing of poultry should be conducted before projects are implemented in rural areas.¹³⁸ Strengthening market linkages of smallholders can entail: organizing producers, especially women; strengthening capacity of producers to interact directly (and under more favorable terms) with traders; advocating for greater freedom for women to directly interact with traders; and strengthening producers' use of the livestock market information system (SIMb).

The importance of developing gender-sensitive activities cannot be overstated in the area of livestock. Traditionally, women can raise small stock and poultry at the homestead but not livestock, but only men can interact with traders to buy or sell animals. Strengthening women's capacity to engage in marketing of their animal assets is important. This will probably be most feasible in the context of women's associations, which seem to increase women's control over their income and assets.

Fattening small ruminants may be considered but affordability has proven a major constraint to program participation in the past. Research is required if fattening is proposed to ensure poor households are able to afford the animals, construction and other costs. Perhaps linking with microcredit or working through associations to minimize risks of obtaining credit could be considered.

Enhancing use of improved natural resource management techniques

In northern Burkina Faso, natural resource management activities are integral and essential to agricultural development. Water conservation efforts should be complemented by soil fertility efforts to be effective at boosting productivity, particularly in years with good rainfall. The GOBF has developed strategies for the protection and development of land, water, pasture, forests, wildlife and fishing, including the *Strategie Nationale de Gestion Integree de la Fertilite des Sols* (SNGIFS) and *Plan d'Actions de la Gestion Integree de la Fertilite des Sols* (PAGIFS). The GOBF also has policies regarding the

¹³⁸ Gning 2005.

promotion of small-scale irrigation in rural areas. *Plan d'Action pour la Gestion Intégrée des Ressources en Eau (PAGIRE) - les grands aménagements hydroagricoles and les petits aménagements hydroagricoles.*

The GOBF Rural Development Strategy recommends the development of water management for agriculture, with a priority of management of bas-fonds for intensifying small-scale irrigation. Priority activities include: intensification and rehabilitation of hydro-agricultural works such as rehabilitation of wells, water retention, and development of large plains; management of small perimeters in which irrigation can be assured through drilling or wells in favor of women or groups of village women or youth; and increasing responsibility for these works such as through fees.

Key techniques relevant to the northern Burkina Faso environment include: demi-lunes, *Zai* holes, stone bunds, ridges, rock bunds/lines (*cordons perrieux*), trenches, grass strips, mulching, tree planting (e.g., *Acacia Senegal*), and planting of ground covers. In addition to supporting land conservation efforts, tree planting can also augment firewood and fruit production. Title II experience in Zondoma highlighted that land rehabilitation should be at least one hectare per household to positively impact food security.

Ensuring participation by women, particularly FHH, should be prioritized. The intervention can favor participation by women because women, who may not be able to increase the cropland allocated to them, may be able to own degraded lands that are rehabilitated. Furthermore, the activity can be implemented as food for work during the dry season.

Prospective Awardees are encouraged to consult with ICRISAT and INERA, which have conducted extensive research on the factors that influence the successful application of agricultural and natural resource management techniques in these types of semi-arid environments.

6.2.2.2 Program Priority 2: Increase and diversify household incomes

The Title II programs should increase total income earned by smallholders. But reducing vulnerability to shocks also means diversifying the household income base and livelihood portfolio, so that if something fails to provide income (e.g., lack of rain-fed cereals to sell after a drought), the household can fall back on other activities to fill the gap (e.g., dry season market gardening, poultry sales, or petty trade funded by microfinance).

Experience with Title II programs has shown that households benefiting from one program component may increase their basic health care or education access during the life of the activity, but participants in multiple components (e.g., market gardening and microfinance) are better placed to accumulate capital and start up new IGA. The activities below aim to capitalize on those synergies for durable program impact.

For Title II implementing agencies, the strategy should adopt a set of programming principles:

- Integrated programming to enhance synergies and impact for targeted households and communities, including poor, labor-poor and FHH
- Behavior change promotion and strategy
- Coordination and capacity strengthening for partner institutions in GOBF, international organizations, communities and private sector
- Integration of gender into design and implementation
- Increased emphasis on value chain analysis
- Increased planning and capacity for sustainability

These six approaches constitute an operational strategy that will be discussed more thoroughly under **Section 6.2.3** (Key Design Considerations).

Four priority activities are recommended to achieve the program priority “*Increase and diversify household incomes:*”

- Expanding market gardening at community and household levels
- Strengthening producers’ capacity to market produce and livestock
- Expanding access to finance for smallholder households through microcredit, IGA and complementary services
- Expanding women and adolescent girls’ literacy and livelihood capacity

Each of these priority activities is discussed further below, including technical considerations for implementation, issues for integration of gender and vulnerability reduction, and opportunities for synergy and linking with other institutions.

Expand market gardening at community and household levels

Market gardening entails the production of vegetables, fruits and other plants for sale, typically on a relatively small scale using improved production techniques. Horticultural production offers potential for food and income support in northern Burkina Faso, if financial, transport, water, storage and conservation constraints are addressed. The Title II market gardening projects generated income from crop sales, enabled consumption of fresh (and in some cases micronutrient dense) foods by the family, promoted the adoption of improved cultivation techniques, and increased knowledge of marketing (particularly for members of site management committees or *comites de gestion*). The GOBF has strategies and activities supporting both large-scale irrigation (for managed irrigated farming perimeters) and small-scale irrigation.

The current DAP selected a limited set of crops for production in the market garden sites, including onions, tomatoes, green beans for export, and maize, and except for the unfamiliar bean variety, participants consume the portion of their produce in the household that cannot be sent to market. Additionally, participants often dedicate a very small portion along the edge of the plot to cultivation of foods that will diversify the diet through sauces and children’s porridges (e.g., okra, hibiscus, local varieties of green beans and cowpeas). Because women cultivate their own foods for the ‘sauce’ on the

market gardening plot, this should be seen as an opportunity to support women to produce, using irrigation, a more diverse and nutrient dense set of foods for household consumption, particularly during the lean season.

Selection of market gardening sites should be based on an assessment of accessibility of river water and/or groundwater for irrigation year-round, and physical proximity (to enable participation, particularly by women with children, and minimize risk of theft or physical risk to participants). A small-scale irrigation strategy, central to the success of market gardening, should be based on the GOBF policy for integrated water management (PAGIRE). Low-cost micro-irrigation technologies can also be explored for smaller-scale, community or household gardens as a supplementary activity. Market gardening projects implemented under the Title II DAP in Burkina Faso were roughly 30 ha each. The size of plot per participant was about 500 m².

Market gardening was narrowly defined as primarily an income-generating activity for participants in the DAP. Yet market gardening presents many opportunities for improving food consumption and dietary diversity, and conducting BCC related to a range of public health and care related causes of malnutrition. For example, crops selected for market gardening should also be considered for their contributions to maternal and child nutrition because participants consume a portion of that production. The program could recommend that a portion of the market gardening plot should be dedicated to production for the family, with particular emphasis on women and children. This would include nutrient dense foods such as sweet potatoes, including improved varieties, fruits, vegetables and legumes. This is discussed further under Program Priority 3, priority activity “Increasing dietary diversity and quality through home gardens and a small livestock program.”

A range of crops, both primary or staple crops and other cash crops, can be grown and marketed successfully in northern Burkina.¹³⁹ Potential cash crops that should be considered, given their growing domestic and international markets, include:

- Sesame – Value added products (e.g., sesame oil and sesame cakes) can be produced locally. Sesame has both national and export markets.
- Cashew nuts – As with sesame, cashews can be sold in raw form or processed, primarily for export.
- Shea nuts - Traditionally collected by women, shea nuts and shea butter from Burkina Faso are considered to be of high quality. Shea nuts can be processed in Ouagadougou and Bobo-Diaoulaso for export.¹⁴⁰
- Rice – Rice can be produced in the lowlands in the northern half of Burkina Faso if irrigated well, and if short-cycle and salinity-tolerant varieties are used. Since rice is normally imported, domestic rice production would support food security of urban poor consumers as well.
- Fresh fruits, vegetables, flowers and spices - Mangoes, pineapple, papaya and bananas can all be grown in Burkina Faso. Export markets exist for dried fruit.

¹³⁹ Personal communication with Vanessa Adams, USAID/WA Trade Hub.

¹⁴⁰ Ibid.

Dried vegetables such as tomatoes, garlic, onion and chilies can all be exported, as can ginger and dried hibiscus. Time for crops to mature, access to finance over a long production period and adequate irrigation are key considerations.

- Cowpeas and maize – Cowpeas grow well locally, are nitrogen fixing for the soil and can be sold in the domestic market. Maize, normally imported into Burkina Faso, is also always in demand domestically.
- Onions, tomatoes, French beans - Onions can be preserved with available techniques and bring a good price, but post-harvest storage is key to enable rural producers to take advantage of the high sale prices during the hungry season. Tomatoes also bring a good price and can be transformed into value-added sauces, but post-harvest storage is essential (large intra-annual price variations)¹⁴¹ French beans and groundnuts produce well in irrigated sites, the former cultivated primarily for export.

As discussed above, organizing producers and establishing strong linkages to markets are critical with market gardening. Market gardening projects, including homestead market gardening projects, are particularly relevant and feasible for women, provided the labor requirements are not excessive (e.g., to collect water) and marketing linkages are well established. Public-private partnerships are encouraged with private companies equipped with capital, production and marketing expertise and other resources, a model being successfully used elsewhere in the Sahel.

Experience in Burkina Faso with market gardening to date suggests that market gardening does improve households' ability to access cereals, school fees and health care, but it does not allow for substantial savings or generation of capital without complementary interventions, namely microcredit and support for adoption of improved techniques in home gardens. Prospective Awardees should consider the following program synergies in proposals:

- A concern with market gardening as currently implemented is that without credit facilities, participants use additional income to pay for essential services (mainly health and education), but are not able to purchase capital or invest sufficiently to 'get a leg up' and improve their financial standing permanently. Several efforts are needed to address this: linkages with microcredit for market gardening participants, capacity strengthening and trainings for participants, and a market-driven private sector oriented approach.
- Participants spend a great deal of time at market gardening sites during the dry season, providing opportunities to conduct BCC regarding the growing and preparation of nutritious foods for the family. Because a high proportion of market gardening site participants are women, BCC could also address IYCF practices.
- Links with support to PLHIV programs

International research organizations conducting research relevant to market gardening techniques in arid environments include the International Water Management Institute (IWMI) and ICRISAT.

¹⁴¹ Africare/Burkina Faso, pers. comm.

Strengthening producers' capacity to market produce and livestock

Rural markets work to the disadvantage of rural producers. At the farm gate, producers often sell their crops and livestock directly to traders who travel to rural areas after harvest when prices are lowest, and the limited organization of producers (and limited access to information) places them at a disadvantage when negotiating prices. Women are particularly vulnerable, as they must rely on men to market their production (crops or animals) for them.

The Title II program should aim to link producers in rural northern Burkina Faso with domestic and international (particularly West African) markets. Prospective Awardees should seek to organize smallholder farmers into viable associations and link those associations with marketing groups and associations in both the public and private sector. The Title II program should capitalize on the work of the USAID supported Trade Hub in linking producers to private sector entities, including for growing export markets. Existing producers' associations in Burkina Faso (e.g., APIPAC) can provide a model for organization of producers, but particular attention is needed to ensure that organizations do not present barriers to participation by the poor and by women, including FHH.

Expanding access to finance for smallholder households through microcredit, income-generating activities and complementary services

As noted above, agricultural and livestock projects targeted to the poor should be complemented by microcredit, to ensure the program becomes a 'step up' with long-term food security impact. The GOBF has stated that credit access via banks and/or microfinance institutions is essential to rural development. Experience in Title II programs in Burkina Faso underscores the importance of microcredit: women who participated in Title II market gardening projects but not microcredit identified the lack of credit as the main barrier to the household investments required for longer-term improvements in food security.¹⁴² Where microcredit activities have been put in place, the Title II program had remarkable success in scaling up the program and reaching women. The DAPs also developed several credit products appropriately targeted to women of varying levels of income and capacity. The element of encouraging voluntary savings by participants should be considered. Equally important is the aspect of debt management for households that have accumulated debt during recent food crises.

It is strongly recommended that the Title II program continue to emphasize the availability of credit facilities. Awardees should seek to work in collaboration with existing private institutions or semi-private institutions in the target area. In the interest of sustainability, setting up new microfinance institutions is not encouraged. Terms of the loans (cap on the loan amount, down payment required, collateral, loan period, terms of repayment) should be set to target rural food insecure households. Market research is required to develop loan products.

¹⁴² Personal communication with program participants (women).

Microfinance products should be developed to support both agricultural and off-farm IGA. Microfinance products for farmers should be well designed to meet the needs of those clients, with longer (typically one year or more) loan periods; a disbursement cycle that provides funds to farmers in installments when required; and linkages to other program components that ensure the farmers have the skills and access to inputs and technologies to use the funds effectively.

Several IGA in northern Burkina Faso can be supported by microfinance, including production of salted peanuts, the spice *soumbala*, biscuits, beignets, millet beer, cloth, soap and cloth dying. Burkina Faso is also well positioned to produce handicrafts for the West African and international market. Burkina Faso is well known for its exports of handicrafts and fashion accessories, including leather products, musical instruments, jewelry and materials fabricated from recycled metal.¹⁴³ Burkina Faso exports bronze art, ornaments and gifts, jewelry, textiles, musical instruments, recycled plastic and metal furniture and household accessories, leather products, hand woven textiles, baskets, accessories, mud cloth and batik.

A strategy is needed to strengthen market linkages by producers using credit for on-farm or off-farm production activities. However, strengthening capacity of participants to market products from the outset is essential for sustainability after the project ends. Projects should target women, especially FHH, and adolescent girls. Microcredit activities should be implemented with a strong BCC component to assist participants with the management of those additional resources, for example addressing issues of food purchase and dietary quality.

As with other program activities, prospective Awardees are encouraged to consider microcredit as a food security intervention rather than an income-generating intervention, with the implication that food security outcomes should be measured.

Expanding women and adolescent girls' literacy and livelihood capacity

The very low prevalence of literacy among women and gender disparities in educational attainment are a challenge for achieving sustainable impact on their agricultural productivity, livestock production, marketing and their success in management and organization of these activities. Two additional types of interventions could be incorporated into Title II programs to help address these constraints: literacy (and numeracy) training for women and food for education in highly food insecure areas.

Demand by women for literacy training is high, and literacy and numeracy have clear implications for capacity of participants to adopt improved production techniques successfully and market their production. Rather than using the national literacy training curriculum, prospective Awardees should consider developing a specialized curriculum

¹⁴³ Personal communications with Vanessa Adams, USAID/WA Trade Hub.

with emphasis on health and nutrition, to reinforce the information provided by the Title II program and support the improvement of women and children's nutritional status through the literacy activities.

Food for Education Programs can add to Title II program synergy and sustainability when they increase girl's enrolment, attendance and retention. The positive benefits of girls education on improving their future earning potential and the health status of their future children has been documented; and keeping adolescent girls in school has been shown to deter early marriage. In addition, a recent study in Burkina Faso found that take-home rations (THR) programs for girls improved the nutritional status of their young siblings.¹⁴⁴ Increased school enrollment by girls is part of the exit strategy for literacy training for women.

6.2.2.3 Program Priority 3: Reduce chronic malnutrition among children under 5 and pregnant and lactating women

With nearly 40 percent of pre-school children in Burkina Faso stunted, reducing chronic malnutrition among children under 5 must be the overarching health and nutrition objective for the Burkina Faso Title II program. To achieve this objective, preventive nutrition programming should focus primarily on children from the fetal stage through age 2 and pregnant and lactating women. The strategy itself should be community-based with activities designed to 1) improve IYCF practices, placing emphasis on increasing exclusive breastfeeding of infants for the first six months of life; 2) improve maternal nutrition with a focus on pregnant adolescents and young mothers; 3) reduce childhood illnesses; 4) improve access to safe drinking water and hygiene-related practices; and 5) improve sanitation. To be effective, these programs will also have to adopt effective BCC approaches and address gender issues pertaining to maternal and child malnutrition.

These programs should also include activities, such as, BCC that will help increase the availability of quality antenatal care, family planning services, care for diarrhea, acute respiratory infection (ARI), malaria, acute malnutrition among children under 5, immunization services and water and sanitation services. To be able to implement this type of program successfully, Awardees will need to have qualified staff with expertise in maternal and child nutrition. Where possible, these programs should link with district-level and GOBF initiatives as well as USAID and other donor funded health and nutrition activities involved in improving the health and nutritional status of women and children. These include the GOBF's standard package of nutrition activities: 1) the Essential Nutrition Actions preventive education framework; 2) micronutrient supplementation; 3) treatment for moderate and severe acute malnutrition offered at health centers and nutrition recuperation centers with links to community screening; 4) growth monitoring (health centers and communities); 5) MOH/UNICEF EPI and vitamin A distribution campaigns; and 6) the integrated management of childhood illnesses (for the health facility and community-based).

¹⁴⁴Kazianga et al 2008.

In addition, Title II programs should operate at the community level and use current community structures, such as CBOs, village management committees and community health workers, building their capacity and drawing on their experiences and skills. A bi-directional referral mechanism between community-based programs and health centers should be incorporated so that pregnant and lactating women and young children with SAM or illness, or in need of preventive care receive treatment. The integration of a community or homestead food production component targeted to women in order to increase dietary diversity and improve their and their children's consumption of nutrient dense foods is also needed. Lastly, identifying and addressing the specific needs of pregnant adolescents and young mothers is called for when planning program activities.

Preventing malnutrition among children under 2

Prevention of malnutrition among children under two is the overarching priority of the maternal and child nutrition component of the Burkina Faso Food Security Programming Strategy. To achieve a reduction in malnutrition in this age group, Title II Awardees are strongly encouraged to use the Prevention of Malnutrition Among Children under Two Approach (PM2A). This approach has been tested in a Title II setting as a randomized effectiveness trial in Haiti and it yielded significant results by reducing the prevalence of malnutrition. This is a population-based approach that differs from many food security interventions, including those implemented in Burkina Faso previously. Most programs target malnourished children once they have become malnourished to help them recuperate from malnutrition. Thus, they target children *after* they have become malnourished (recuperative model). In the preventive approach, all children under 2 and pregnant and lactating mothers are eligible to participate in the program and all receive food supplements to prevent malnutrition from occurring. This latter approach targets children *before* malnutrition sets in (preventive model). Mothers and children are targeted in a specific area regardless of their nutritional or economic status. In the Haiti trial, the prevalence of malnutrition was significantly lower in the prevention group compared to the recuperative group.

Participants in the program receive a comprehensive set of services including:

- A food ration, both a family ration and an individual ration specific to the child/mother (conditional on participation in PM2A components)
- Preventive health services, including antenatal care, postpartum care, immunization, vitamin A supplementation, iron/folic acid supplementation during pregnancy, etc, per MOHS protocols
- Behavior change communication (BCC) activities designed to improve child care, feeding and hygiene practices and women's nutrition and health
- Home visits by trained community volunteers, for example, to pregnant women, mothers of newborns, children with SAM or growth faltering, those who need to but have stopped participating, etc.
- Community outreach to create awareness, identify program beneficiaries, etc.
- Screening and referral for SAM

Each service may be offered in combination with others, or at distinct venues. The technical resource material for the design of programs using PM2A is forthcoming. A brief summary description of PM2A is provided in **Annex 7**.¹⁴⁵

PM2A targets pregnant women to protect the nutrition of the mother during gestation, promote the optimal growth of the child in the womb and ensure the child achieves an adequate birth weight. Targeting lactating women aims to protect the mother from nutritional depletion and ensure adequate quantity and quality of breast milk production. Children 6-23 months are targeted to prevent growth retardation during a critical period of both rapid growth and high risk of poor physical and cognitive development, infectious diseases and mortality. Children 6-59 months are screened for SAM, referred to the health system for treatment, and provided basic health services such as immunizations, deworming and micronutrient supplementation.

PM2A may cost more per beneficiary than other components of the Title II program in Burkina Faso. The increased cost per beneficiary will come not only from the amount of food, but also from increased need for transportation, storage and inventory control. This may have implications on the numbers and locations of beneficiaries targeted and on the total MYAP budget. However, PM2A targeting should be at the population level and include all communities and eligible beneficiaries in the proposed project area.

The family ration for all beneficiaries must address the estimated food gap in the project area and the individual ration for pregnant and lactating women and children 6-23 months of age must be of sufficient size to address a substantial portion of their nutritional needs. The rationale for the family or household ration, in addition to the individual rations for pregnant and lactating mothers and children under 2, is to reduce sharing of the individual ration with other household members and ensure an adequate amount of food is available to the mother and/or child.

Title II Awardees implementing PM2A should conduct formative research to inform nutrition messaging to ensure good adoption of key nutrition behaviors. Title II Awardees should also conduct operations research as needed to assess program implementation, identify problems in program delivery and use of the program by beneficiaries, identify solutions to problems and implement them. Title II Awardees should also address ways to ensure that the provision of rations for PM2A does not inhibit participation in other program activities that do not provide rations, and avoid creating dependency upon receiving rations. It will be important for the Title II program to build strong linkages across strategic objectives and program components to improve participants' food and livelihood security and facilitate the eventual transition of households and communities as the program prepares for exit, to maintain food security and nutrition outcomes.

¹⁴⁵ Reports from the study in Haiti can be found at <http://www.fantaproject.org/pm2a/index.shtml>.

The following program priorities outlined below form an integral part of PM2A: improving IYCF practices for children under 2; improving prevention and treatment of childhood illnesses; improving detection and referral of children under 5 with SAM; improving maternal nutrition and health, with a focus on adolescent girls; improving adoption of key practices through effective use of BCC interventions and improving hygiene practices.

Improving IYCF practices

Programs seeking to reduce malnutrition in Burkinabe pre-school children must address child feeding practices, including promotion of exclusive breastfeeding and optimal complementary feeding practices (IYCF) through the first two years of life.¹⁴⁶ The MOH/DN and stakeholders recently developed a nutrition communication plan that includes IYCF; and currently a taskforce is identifying IYCF BCC materials to support the Plan's activities. In addition, the Essential Nutrition Actions (ENA) approach is being implemented in one area of Burkina Faso and has been adopted by the MOH/DN. The ENA messages and materials developed are being reviewed by the taskforce. The current IYCF efforts should guide the Title II program approach.

Promotion of optimal breastfeeding practices is a high priority in Burkina Faso and should be prioritized as a Title II MCHN activity. Although it is recommended that infants be exclusively breastfed for the first 6 months, widespread traditional practices encourage feeding water and other liquids shortly after birth. As a result, only 6 percent of infants are exclusively breastfed for 6 months meaning that nearly 95 percent of children are at high risk of illness and malnutrition.¹⁴⁷ Early initiation rates are also low with less than one-quarter of women breastfeeding their infants within the first hour of birth. A recent IYCF program evaluation reports increases in early initiation rates, but no change in the rate of exclusive breastfeeding. This finding and the extremely low rate of exclusive breastfeeding call for in-depth formative research, including a gender analysis,¹⁴⁸ which focuses on the constraints, barriers and opportunities to improving exclusive breastfeeding. Community-based programs from other countries in the region, such as Senegal, where programs have been effective in improving exclusive breastfeeding through decreasing the common practice of feeding water to young infants, should be reviewed.¹⁴⁹ It may also be possible to use Peace Corps volunteers to train CBO staff, health center staff and community volunteers in appropriate infant feeding practices, such as feeding colostrum and delaying the introduction of water, and

¹⁴⁶ WHO recommends exclusive breastfeeding for infants between birth and 6 months, and appropriate feeding for children 6-23 months including: continued breastfeeding, feeding solid/semi-solid food a minimum number of times per day, feeding a minimum number of food groups per day, continued feeding during and after illness, feeding appropriate quantity of food, providing food with appropriate consistency, and feeding nutrient-dense foods. PAHO/WHO 2004.

¹⁴⁷ GOBF/MAHRH/DGPER 2009.

¹⁴⁸ **Gender analysis** is a tool that can be used to assess the differential impact a program has on women, men, boys and girls; and is useful for understanding social processes and for responding with informed and equitable options. **Gender analysis challenges the assumption that everyone is affected by program interventions in the same way regardless of gender.** Gender analysis aims to achieve **equity** rather than equality.

¹⁴⁹ One article which describes a Senegalese community-based approach to improve infant feeding practices is the following: Aubel, Judi, Ibrahima Toure and Mamadou Diagne. "Senegalese Grandmothers promote improved maternal and child nutrition practices," *Social Science and Medicine*, Vol. 59, 945-959, 2004.

how best to promote them. This activity could build on the current partnership between UNICEF and the Peace Corps in this domain.

In addition, there is a great need to improve complementary feeding practices, including quantity and quality of food as well as the timeliness of introduction. It is particularly important to ensure that older infants and young children are being fed sufficient amounts of protein and nutrient dense complementary foods, such as animal food products and vitamin rich fruits and vegetables, in addition to or along with the cereal or gruel commonly served to infants and young children in Burkina Faso. Providing information to support and improve IYCF during and after illness is also needed. Awardees' provision of a fortified supplemental food for infants/young children 6-24 months along with nutrition and health education will help address diet inadequacies in the short term. In addition, micro-enterprise projects that make low cost fortified complementary foods from locally grown cereals should also be supported and promoted where possible so to support sustainability of access.

BOX 5. PROMOTION, PRODUCTION AND SALE OF LOW COST FORTIFIED COMPLEMENTARY FOODS, NUTRITION AND HEALTH EDUCATION

NutriFaso in partnership with GRET, in the East region of Burkina Faso, implements a program that produces a low cost fortified complementary food and two micronutrient mixes, one to fortify infant cereal and the other for pregnant and lactating women to add to water and drink. In addition, the program works at the community level with nutrition educators and nutrition committees, which provide monthly nutrition sessions and sell the fortified foods and products. Evaluation results after two years of implementation show high program visibility, and relatively high product use (32 percent of women purchase fortified food weekly and 48 percent purchase these foods every two weeks). Infant feeding practices have also improved. Feeding colostrum to infants has increased from among 21 percent to 71 percent in intervention communities. However, the practice of exclusive breastfeeding improved only slightly from 3.5 to 4.7 percent.

Improving IYCF practices will require Title II Awardees to also conduct formative research to identify the current complementary feeding behaviors among adolescent and older mothers. Formative research to understand child feeding practices should explore the volume, variety and consistency of food given to infants and young children including how young children are fed and with what foods and how adolescent and older mothers feed and care for their children (e.g., active or passive feeding, from a separate bowl or shared, who cares for infants and young children in a mother's absence, child health seeking behaviors). Importantly, Awardees will need to understand women's roles and responsibilities within households and how competing priorities affect women's time and ability to follow through on optimal feeding practices. This will be especially important to understand for adolescent mothers. Given the broader gender constraints affecting mothers' capabilities, programs should actively involve husbands and men more

generally to deepen their understanding of and responsibility for preventing malnutrition. Furthermore, Awardees should ensure that the core BCC messages are communicated to mothers, husbands and mothers-in-law in a way supports child care, feeding and nutrition for women. Working with husbands, mothers-in-law and women, to identify specific, achievable ways that the quantity and quality of food consumed by young children can be increased and that early initiation and exclusive breastfeeding can be supported is advised.

If Awardees plan to implement programs that produce or use fortified complementary foods, they should check with MOH/DN, UNICEF and Nutrifaso/GRET regarding issues related to fortification, quality and food safety.

Preventing and treating childhood illness

Title II programming in Burkina Faso should strengthen community-based maternal and child health programming to increase access and demand for treatment for common child illnesses, especially malaria, pneumonia, diarrhea and malnutrition, support recuperation, and promote behavior change to prevent illness. To prevent death, increased severity of illness, risk of complications, disability and associated malnutrition, it is important that children receive prompt and appropriate treatment. However, access to health services is limited. To address this, Awardees should draw from the experience of programs supporting IMCI, C-IMCI and other health activities, and in overlapping program areas collaboration is advised. Some community-based programs support access to health services through subsidizing or exempting cost for health services for poor pregnant women, infants and children under 5, in addition to training health center staff in IMCI and providing training in C-IMCI for community health workers and volunteers. Another critical activity to support prevention and early identification and treatment of illness and malnutrition is a bi-directional referral mechanism between community-based programs and health centers. Developing a bi-directional referral mechanism between community-based programs and health centers should be incorporated so that pregnant and lactating women and infants and young children with SAM, illness, or in need of preventive care receive prompt treatment.

To prevent and treat childhood diseases, Title II programs should link with and support GOBF and USG health programs. For example, the US Presidents Malaria Initiative (PMI), a national program which starts this year, will support the diagnosis and treatment of malaria in under 5 year olds as well as provide insecticide treated nets. Collaborating with the PMI, which will cover the entire country, to ensure provision of services in Title II program areas will help address this problem. Linking with the MOH's and UNICEF's EPI and vitamin A distribution days (and child health weeks where available) to ensure children receive vaccinations on schedule and vitamin A regularly will help to address the problem of inadequate coverage in rural areas. Coordinating with the district health office to ensure that the protocols for the treatment of neglected tropical diseases are implemented in Title II areas is also recommended.

Awardees should conduct BCC activities targeting mothers, husbands and mothers-in-law to ensure that they can recognize the danger signs of child illnesses and seek timely care for diarrhea and ARI.

BOX 6. SANTE MATERNELLE ET INFANTILE-NUTRITION (SMI)

The SMI program strengthens IMCI through health staff training and C-IMCI through training of volunteers. It also lowers barriers to health care by developing a system to subsidize or exempt prenatal care, facility-based deliveries as well as child and medical treatment for infants and young children. The program includes community-based activities such as group nutrition and health education sessions conducted during monthly growth monitoring and screenings for acute malnutrition. A recent program evaluation showed improved health seeking behavior and increased use of health facilities. Several European NGOs are initiating or continuing this approach in East and Northern regions and a more rigorous evaluation is planned.

Source: Personal communication Thierry Agagliate, Country Director, Terre des Hommes Burkina Faso and Evaluation Finale du Projet SMI-Nutrition "Réduction de la malnutrition aigue et de la mortalité des enfants de moins de 5 ans et des femmes allaitantes et enceintes dans les districts de Tougan, Segouenega, Gayeri et Fada au Burkina Faso » Rapport, Initiatives Conseil International, Février, 2009.

Linking with programs focused on the management of acutely malnourished children

The GOBF/MOH in 2007 launched protocols for the treatment of moderate and SAM in children. Since then, with donor support, NGOs have been training health center and nutrition rehabilitation units (CRENs) staff in the new ambulatory approach for the treatment of children with SAM without complications in selected areas in the regions of Est, Sahel, Centre Est, Sud-Ouest, Centre Nord, Nord and Centre Ouest. Community volunteers are also being trained to provide screening and referrals to health centers for children identified with SAM. UNICEF supports the nutrition rehabilitation units, which treat the more complicated cases of SAM with the necessary therapeutic milks, other supplies and training. In regions where WFP's MCHN program operates (Sahel, Nord, Centre Nord, Est, Sud-Ouest, Centre Sud and Centre Ouest), children at risk of moderate acute malnutrition are also referred to health centers for supplemental food and other treatment.

Title II programs, while maintaining their focus on the reduction of chronic malnutrition, should link with CMAM programs and with WFP's MCHN program in overlapping areas; and Title II program staff and community volunteers should coordinate similar activities with CMAM staff/volunteers, such as growth monitoring activities and MUAC screening for acute malnutrition as part of community-based programs. In addition, the bi-directional referral system previously mentioned between Title II community-based nutrition programs and Health Centers will ensure timely identification of malnourished children and follow-up at the community level for recuperating children.

Improving maternal nutrition and health, with a focus on adolescent girls

Because stunting begins as early as the fetal stage, ensuring good health and nutritional status of the mother, especially before and during pregnancy, is vital to reducing malnutrition among young children. Promoting women's nutrition, including anemia prevention, should be a priority in food security programming for Burkina Faso.

To prevent anemia in pregnant women, iron/folic acid (IFA) supplementation, provision of insecticide treated bed nets and intermittent preventive treatment (IPT) for malaria are recommended. As the PMI will strengthen the provision of prevention and treatment services for malaria for pregnant women, collaboration is recommended. Women should receive IFA and IPT during routine antenatal care in Burkina Faso. Therefore, improving access to prenatal care and strengthening health services is critical to improving birth outcomes. Awardees should collaborate with partners working to improve access to prenatal care, as women's participation is low. Some NGOs have implemented programs in Burkina Faso in which prenatal care is subsidized or free for poor women. For example, in overlapping areas coordinating with NGOs that have implemented a system of subsidized or free prenatal care for poor women and/or providing education on the importance of prenatal care to women, their husbands, and mothers-in-law along with religious and community leaders would support this effort. Working with family decision makers so that the money for prenatal care visits and a facility delivery is reserved could also help to address low participation in antenatal care. The role of grandmothers as facilitators of health seeking behaviors, such as participation in antenatal and postpartum care should also be explored. Although nearly 60 percent of pregnant women took iron supplements during their pregnancies, only 10 percent took iron for at least the minimum recommended 90 days.¹⁵⁰ Barriers to taking iron supplements should be studied and ways to reinforce this practice identified and disseminated through community group education.

Interventions to combat CED include fortified food supplementation, increased food production, nutrition education and behavior change. In particular, targeting newly married adolescent women (pregnant or not), their spouses and decision makers is recommended, given their higher rate of CED, expected pregnancies as well as the higher risk for poor birth outcomes among this subgroup. Community-based programs should focus particularly on pregnant adolescents and first time pregnant women, but provide services to all pregnant and lactating women. Providing fortified food supplements conditionally based on participation in antenatal care and educational sessions can serve as an incentive to improve knowledge, health seeking behavior and practices. The community educational sessions can demonstrate and promote practical ways to increase food consumption and improve dietary quality, appropriate work and rest practices during pregnancy and lactation while also supporting women to take their IFA for at least the minimum-recommended 90 days.

¹⁵⁰ DHS 2003.

Formative research can help programmers identify ways to best support and encourage adequate maternal health and nutrition. It should explore adolescent and women's dietary practices, intra-household food distribution, food access, pregnant women's work loads and rest habits as well as perceptions of antenatal care and health facilities. Such research would serve to identify barriers, constraints and opportunities for improving adolescent and women's health and nutrition behaviors. Depending on the number of newly married couples without children in a village, forming groups of newly married couples and family decision makers to interactively discuss health and nutrition topics related to preparing for pregnancy may be warranted. These sessions should incorporate the findings of the formative research. In small villages with too few newly married couples, another format to provide this information could be developed.

Enhancing access to water and sanitation, and improving hygiene practices

Improving access to and use of latrines and potable water as well as improving household hygiene practices should be a priority for Title II programs. Awardees should conduct formative research at the community level to understand more about current hygiene behaviors and to identify knowledge and beliefs about the causes of diarrhea, current high-risk behaviors and any barriers or enabling factors to improving these behaviors. Working in collaboration with the public health system and UNICEF on the activities outlined in the National Policy on Public Hygiene for rural areas is also recommended. These activities include training village management committees in hygiene and sanitation and supporting them in developing and managing water points and sanitation infrastructures; developing simple methods for water treatment; and sensitization and BCC to promote latrine and safe water use.

The promotion of improved hygiene practices should focus on: proper hand washing (with soap) at critical times; latrine use and proper disposal of the feces of young children; protection of drinking water from contamination in the household; sources of potable water during the wet and dry seasons; and safe preparation and storage of food (especially foods for young children). Awardees should prioritize simple improvements to drinking water and sanitation facilities. These may include protecting wells, repairing pumps; and installing basic, low-cost latrines. It may also be necessary to support communities in constructing wells and boreholes. Useful resources for NGOs on program design for water and sanitation include the USAID Technical Resource Materials, *Control of Diarrheal Disease* and *The Hygiene Improvement Framework: A comprehensive approach for preventing childhood diarrhea*.¹⁵¹

¹⁵¹ The USAID Technical Resource Materials, *Control of Diarrheal Disease*, is available at: <http://www.childsurvival.com/documents/trms/tech.cfm>. The Hygiene Improvement Framework: A comprehensive approach for preventing childhood diarrhea, is available at: www.ehproject.org/PDF/Joint_Publications/JP008-HIF.pdf.

BOX 7. GRANDMOTHER APPROACH

To capitalize on the influential role the mother-in-law or grandmother plays in providing advice and allocating work, HKI has developed a strategy of training grandmothers (experienced older women) to promote optimal nutritional practices for pregnant/lactating women and infants and young children. A few months into the implementation process, grandmothers were expressing enthusiasm for the correct information learned and the important role they were being asked to play in improving the health and nutrition status of mothers and young children in their communities. This approach is being piloted in 20 villages in the Eastern region of Burkina Faso. Recent experiences with communities in West Africa have demonstrated the positive role of grandmother as leaders in promoting family health and nutrition. In both Senegal and Mali, grandmother involvement contributed to improved diets and nutritional status of pregnant women and young children.

Source: Personal Communication Ann Tarini, Country Director HKI Burkina Faso; Demarche de Mise en Œuvre de L'Approche « Partenariat avec les grandmeres dans la promotion des savoirs and locaux et modernes en matiere de la sante/nutrition et bien-etre des enfants et des femmes » EU, HKI, TdHommes, Juillet 2008; Aubel, Judi, Ibrahima Toure and Mamadou Diagne. "Senegalese Grandmothers promote improved maternal and child nutrition practices," *Social Science and Medicine*, Vol. 59, 945-959, 2004; and The Grandmother Project web page: www.grandmotherproject.org.

Increasing dietary diversity and quality through home gardens and small livestock programs

In the 2003 DHS, only 25.5 percent of children between 6 and 36 months had at least one serving of vitamin A rich fruit or vegetable in the week preceding the survey. Their diets were also low in dairy products, eggs and meats; for young children 10-23 months only 7-11 percent consumed dairy products and only 10-30 percent consumed meat or eggs in the 24 hours before the survey.¹⁵² To address this problem, a Homestead Food Production (HFP) program that includes raising micronutrient rich vegetables and small livestock is recommended. The inclusion of small livestock and promotion of its consumption is particularly important given the high levels of anemia and vitamin A deficiency among infants and young children and women and the low quantity and poor quality of protein and micronutrient-rich foods consumed.¹⁵³ Hand in hand with production and promotion of the consumption of iron and vitamin A-rich foods, implementing malaria control measures and promoting vitamin-A supplementation as mentioned in the preventing and treating childhood illness section is advised. Four factors have been identified as critical for the success of homestead gardening programs to improve nutritional impact: the inclusion of nutrition education and promotion, gender-sensitive initiatives, adaptability to local conditions, and monitoring and evaluation.¹⁵⁴

¹⁵² DHS 2003.

¹⁵³ According to DHS 2003, 92% of young children under age 5 and 54% of women in child bearing years are and 68% of pregnant women are anemic; there are no recent surveys with data on vitamin A deficiency. Profiles Burkina in 2000, estimated 34% of children under age 5 were vitamin A deficient. Vitamin A supplementation is low at 33 percent nationally and even lower in rural areas at 31 percent (DHS 2003).

¹⁵⁴ Berti et al 2004.

It is recommended that this component build on the lessons learned by HKI and others from implementing community and home gardening programs in Burkina Faso. The largest constraint identified in HKI's gardening project was the lack of water during the dry season. To address this, gardens have been successfully located near wells or water pumps and irrigation kits have been provided. Targeting women is advised, and to this end, conducting formative research to understand women's interest and constraints to participating in all aspects of the HFP is needed. Nutrition education designed according to the principles of BCC and focusing on the importance of micronutrient rich vegetable and animal product consumption (including meat), the number of servings and quantities required should be included. Additionally, vitamin A vegetable seeds and/or cuttings, such as the orange-fleshed sweet potato should be initially provided or promoted. The issue of water access during the dry season must be addressed. Finally, mechanism for providing small livestock and training potentially along with a mechanism for partial repayment through replacement animals should be included. If similar programming, such as market gardening, poultry and small livestock production were planned as recommended in Program Priority 2, integrating the HFP program approach would be recommended.

A similar Home Food Production program has been implemented by HKI extensively in Asia in a number of contexts, including Title II programs, and HKI is currently starting such a program in the Eastern region of Burkina Faso. The program introduces improved and appropriate homestead technologies adapted to the local context, nutrition BCC focused on infant feeding practices, and vegetable and small animal production and consumption. The program also builds stronger ties with the local health system. Monitoring and evaluation results from these programs in Asia show promising improvements in diet quality and nutrition indicators, greater incomes, improved year round access to food, and greater women's participation and community involvement.¹⁵⁵

Cross-cutting Issue: Implementation of community-based programming

The MOH/DN has identified the need for nutrition and health services at the community level closely integrated with the health care system. Funding has been obtained, and planning for program implementation is in process with a 2010 roll out planned. In overlapping areas, collaboration between Title II Awardees, MOH and NGOs implementing community nutrition and health program is strongly recommended. The variety of approaches for health and nutrition services at the community level include C-IMCI, Growth Monitoring and Promotion, the Care Group model and others. Regardless of the approach selected by Awardees, the program should involve community leaders and build on available community structures, such as health committees and volunteers. It should also call on community members to take responsibility for malnutrition prevention and involve them in all aspects of the program. It is recommended that the community approach employ the Care Group model or a similar approach since Care Groups use supervised volunteer mothers to facilitate groups of 10 to 12 households favoring the formation of lifecycle stage groups,

¹⁵⁵ HKI 2001 and Stallkamp et al 2007.

such as pregnant women or lactating women with infants less than 6 months. Using trained (and supervised) grandmothers or other respected community members supported by village volunteers to facilitate groups and provide services, such as growth monitoring and promotion, is also recommended. PM2A programming requires the integration of several community nutrition and health activities that can be integrated with the various community nutrition approaches. (See **Annex 6** for a matrix of several community nutrition program approaches and **Annex 8** for resources on community-based programs.)

Cross-cutting Issue: Employing effective BCC interventions

The adoption and reinforcement of key health-related behaviors at the level of the mother/caretaker, the household and the community are central to the reduction of chronic malnutrition among children under 5 and maternal malnutrition. While access to the necessary variety and amount of food, key maternal and child health services and clean water and sanitation are essential, without ensuring sound care-seeking, IYCF practices and dietary practices, their impact on malnutrition will be limited. The high levels of stunting among children and maternal malnutrition in the households of all wealth quintiles in Burkina Faso demonstrates that access to food at the household level does not necessarily translate into improved nutrition.

Behavior change using interventions informed by best practices and formative research is essential to improving maternal and child nutrition. Choosing and carrying out an appropriate set of behavior change interventions can help to improve care-giving and care-seeking practices at the household level, contribute to a supportive community environment, and improve the treatment offered to community members by health service providers. While awareness-raising activities are a good start, Awardees are strongly encouraged to use behavior change approaches that are both intensive and interactive, as they have been shown to be more effective. Intensive and interactive messages ensure that the individuals targeted are exposed to the same key information on several different occasions and in ways that actively engage them.¹⁵⁶

Employing a BCC strategy that incorporates intensive and interactive approaches based on formative research and the MOH/DN Nutrition Communication Plan is recommended. It can be tailored to each community or program area and targeted to caregivers and infant and young feeding decision-makers at all appropriate contact points. Awardees need to identify priority behaviors, understand current practices, determine which behaviors caregivers are willing and able to change, determine constraints that may prevent adoption and decide how best to provide support to those adopting new behaviors. Given that a proportion of beneficiaries will be adolescent mothers, during the formative research it will be important to identify how to best

¹⁵⁶ Two good resources for the design and implementation of BCC strategies for PVOs and NGOs are the *Designing for Behavior Change* curriculum developed by the CORE Group and the *2005 Behavior Change Interventions: Technical Reference Materials*, developed by the Child Survival Technical Support Plus Project. Both are available at http://www.coregroup.org/working_groups/behavior.cfm. In addition, Annex 8 includes resources on behavior change programming.

target them, their husbands and families; this could include peer-to-peer activities or group activities for mothers within certain age ranges.¹⁵⁷ In designing a behavior change program, Title II Awardees should ensure that any services provided that support the adoption of positive behaviors, such as micronutrient supplements and ITNs for young children and pregnant women, are available in targeted communities.

6.2.3 Key Design Considerations

Geographic targeting. The FFP Title II program obligates participating MYAP Awardees to target resources for food security programming in the most food insecure regions. The overview of the distribution and causes of food insecurity (availability, access and utilization) in Section 4 identifies the regions of Nord, Centre-Nord, Plateau Central, Sahel and (northern) Est as having the highest levels of chronic food insecurity in the country. It is recommended that the general geographic focus of the Title II program remain the chronically food insecure areas in the north and east. The Sahel Region, the least accessible, most sparsely populated and most pastoral in the country, presents programming challenges and requires a tailored approach. These areas are also underserved by major development and investment programs in the country, such as MCC, which focus on the west and southwest. The Title II program, in contrast, has the objective of targeting the most food insecure. Prospective Awardees are encouraged to focus geographically such that food insecure households will benefit from multiple activities at community, household and facility levels, thereby increasing long-term impact.

Targeting vulnerable households and individuals. The Title II program should target those who are most affected by chronic food insecurity (including chronic malnutrition). Priority target groups include FHH, poor and labor-poor households, pregnant and lactating women, and children under 5 (with an emphasis on children under 24 months). Vulnerability reduction and capacity strengthening should be incorporated into all program activities. Considerations for targeting FHH and women are discussed further under “Gender” below.

Balancing food and cash resources as program inputs. The next MYAPs in Burkina Faso must balance food and cash resources to maximize program effectiveness. Monetization of appropriate commodities will be conducted in accordance with the Bellmon determination and analysis. A number of opportunities for using food assistance to directly support programming initiatives in MYAP communities include:

¹⁵⁷ In Burkina Faso, a program to reach married adolescent girls, “mere-éducatrices,” implemented in four rural sites in two provinces of the Eastern and Center South Regions, trained young mothers to home visit married adolescent girls. Although this project has ended, the “mere-éducatrice” approach is included in MASSN’s new Eliminate Child Marriage Program. In preparation for these programs, formative research with married adolescents has been conducted in specific areas as well as baseline surveys. These reports and other information are available from the Population Council office in Burkina Faso, and the MASSN, United Nations Population Fund (UNFPA) and UNICEF offices and may be worthy of reviewing when designing such formative research.

- Food rations for children under 2 – PM2A food transfers are appropriate only when accompanied by their mother or family members' participation in MCHN activities, including BCC, and preventive health services;
- Food rations for pregnant and lactating women involved in MCHN activities at the community level and participating in prenatal and postpartum care
- Food for work for land reclamation and soil fertility activities
- Food for education and food as an incentive for literacy training

Integrated, holistic and synergistic programming. To create program synergy, which in turn increases impact and sustainability, Title II activities such as agriculture, microfinance and food security should be integrated at community and household levels with the health, nutrition and education components. FHH and particularly those with young children, should be prioritized for integrated holistic programming. Applicants should consider integrating MCHN information in community mobilization activities and agriculture and microfinance training. Another option to consider is sequencing activities targeted to women if their time is too limited to participate in multiple activities simultaneously. After having completed the curriculum of monthly health talks, women could be offered microfinance and/or homestead food production training and support while continuing to have their children's growth monitored monthly. Microfinance and homestead food production opportunities increase the availability of food and women's incomes, which support recommended diet and health practices. The principle extends

BOX 8. ILLUSTRATIVE OPPORTUNITIES FOR PROGRAM SYNERGIES FOR TARGET HOUSEHOLDS

- Linking agricultural and livestock promotion at household level can provide income at different times of the year, diversify livelihoods, boost resiliency, and provide manure for use on fields.
- Linking rain-fed agriculture and market gardening activities can promote adoption of improved techniques among home and market garden sites and reduce seasonal food and income fluctuations.
- Providing microcredit for rain-fed agricultural activities can enable beneficiaries to scale up production, invest in capital and increase the economic impact on the household.
- Linking rain-fed agricultural activities with support to PLHIV programs can build self-sufficiency.
- Providing microcredit for livestock production can enable the poor to participate in livestock programs, which in turn benefit agricultural production.
- Market gardening sites should be capitalized upon as opportunities for BCC with participants about safe water, sanitation and hygiene.
- Targeting families with children under 2 participating in the MCHN component with food security, agriculture and microfinance activities by: targeting male household heads with pregnant wives and/or young children with food security activities while ensuring participation of their spouses in MCHN activities.
- Integrating nutrition and health information into Title II sensitization activities and all program components.

to collaboration and synergies with other agencies' programs, discussed further in **Section 7**.

Gender. Given the lack of income-generating opportunities for women and the high rates of adolescent marriage and motherhood, applying a gender lens to all aspects of the program is important so that women are involved in ways that enhance their resources, and in turn, improve their and their children's health and nutritional status. To accomplish this, linking with organizations promoting women's literacy training and microfinance activities will be needed. In addition, developing approaches to support pregnant adolescents and young mothers based on formative research is recommended. In overlapping areas, working with MASSN's program to eliminate child marriage is advised, as their activities for married adolescents complement the Title II program.

BOX 9. ILLUSTRATIVE OPPORTUNITIES FOR APPLYING A GENDER LENS TO TITLE II PROGRAMMING

- Targeting men, particularly younger men who may be more responsive to messages regarding the health status of their children and their role in their care, including feeding. Specific actions that men could take to support their wives and young children could also be included.
- Developing a gender policy if they do not have one. The gender policy could include prioritizing the hiring and promoting of qualified women and the provision of comprehensive gender training for staff.
- Conducting a comprehensive gender analysis as an initial program planning activity
- Linking with women's literacy programs and programs that support girl's education and keep adolescent girls in school in overlapping program areas
- Tailoring activities to increase use of improved agricultural techniques, to take into account time constraints and barriers to participation by women
- Making market gardening sites safe spaces for children, with potable water, latrines and places for food preparation.
Engaging men in the livestock activities to build support for women and children consuming animal protein

The principles of gender equity need to be integrated more explicitly and proactively into all Title II food security programs. A better understanding of gender dimensions—how gender issues will affect programs and their ability to achieve their food security objectives—should inform the design and implementation of the Title II programs. Men's and women's needs and constraints will differ, and they will not always be affected in the same way by project interventions. Adding a gender lens to these programs means understanding and considering these differences in the design and implementation of the Title II programs. As such, integrating gender equity in programming is context-specific. Mainstreaming gender into a program does not mean that a program has to become exclusively or even primarily focused on women. It is about understanding the social context in the program area sufficiently to transform the enabling environment at the community level so that men and women can dialogue, participate and gain equitably

from program efforts in food security and nutrition. Integrating gender equity in this way will facilitate and deepen program impact, and along the way, will likely promote gender equity as well. It is up to each program to undertake some initial assessment of the social context and gender constraints, and then determine how they address these constraints.

HIV. Given the relatively low levels of HIV prevalence in Burkina Faso, prevention education is recommended. Given Title II's geographical focus in rural food-insecure areas and the lower than average prevalence of HIV in these areas, an educational approach will help to address the high level of misinformation about the disease, how it is transmitted and the problem of stigma experienced by PLHIV. Women know less about HIV transmittal and prevention than men (16.6 percent of women knowledgeable versus 31.7 percent of men); and women living in rural areas are less informed than their urban counterparts (9 versus 43.8 percent).¹⁵⁸ Thus, including HIV prevention as one of the topics in the nutrition and health education curriculum is recommended to ensure broad coverage. This information should also be included in agriculture and food security classes targeted at men. Ways of sharing this information in particular with youths should also be explored.

HIV prevalence among pregnant women is low (2 percent), and disproportionately affects urban and young women. Thus, the rural-focused MYAP programs probably will not need to target the special needs of HIV-infected mothers and children beyond developing adequate referral mechanisms. However, if a Title II Awardee is working in a community with high HIV prevalence, all materials should be adapted based on WHO Guidelines, and the program should link with any Prevention of Mother to Child Transmission (PMTCT) and HIV treatment programs available.

Applying formative research to promote behavior change. As discussed, improving care, feeding, hygiene and sanitation practices will require Title II Awardees to conduct formative research to develop a comprehensive behavior change strategy that can be tailored to each community and targeted to caregivers and key decision-makers at all appropriate contact points. (Additional information on MCHN formative research and BCC is included in **Section 6.2.2.c.**) Similarly, focused research will need to be applied to increase agricultural productivity, improve agricultural practices and farm management, and increase market access and use. Particular attention should be given to improved inputs, land use, agricultural techniques, planning and post-harvest techniques. In tandem with these two components of focused research, it will be important for MYAP awardees to undertake a gender analysis and gendered vulnerability assessment to understand the current sociocultural context and to explore the relationships between men and women in the household and community. Awardees will need to understand women's roles and responsibilities within households and how competing priorities affect women's time and ability to follow through on optimal feeding practices and to participate in agricultural and microfinance activities. The

¹⁵⁸ DHS 2003.

gender analysis should also identify stresses caregivers face that may inhibit their ability to adequately care for their families, including domestic violence, family relations, community challenges, among others. Formative research should help to identify key decision-makers and influencers to ensure that core BCC messages be targeted appropriately to mothers, husbands, mothers-in-law, grandmothers, etc. Given that a proportion of beneficiaries will be adolescent mothers, formative research should identify how to best target them, their partners and families. MYAP Awardees need to identify priority behaviors, understand current practices, determine which behaviors people are willing and able to change, determine constraints that may prevent adoption and decide how best to provide support to those adopting new behaviors.

Operations research (OR). To reduce food insecurity, MYAPs must effectively implement well-designed food security program interventions that successfully reach their target groups. However, program implementation is challenging, especially in countries with limited infrastructure and human resources. OR enables problem identification in service delivery and problem-solving by testing programmatic solutions. An important objective of OR is to provide program managers and policy decision makers with the information they need to improve existing services. The sequence of activities in an OR process includes five basic steps: 1) identifying the problem in service delivery or implementation; 2) identifying a solution or strategy to address the problem; 3) testing the solution to improve the quality of service delivery or implementation; 4) evaluating and modifying the solution as needed; and 5) integrating the solution at scale into the program. By incorporating well-designed OR at the core of field activities, programs can continuously examine the quality of their implementation and identify constraints to delivery, access and utilization of planned services, adjusting the program as necessary. OR is an iterative process, which should be conducted early on and repeated at various points during the life of a project to ensure continued quality in service delivery and program implementation. If done well, and the program design is sound, it can increase the likelihood that the project will attain its stated objectives.

Anticipation of emergencies. Title II programs can strengthen the mitigation of emergencies through four components: better incorporation of vulnerability reduction into program design; early warning and monitoring of trigger indicators; preparation of a single-year assistance program if needed; and preparation of additional emergency resources requests for the MYAP based on trigger indicators if needed. The Title II program should anticipate emergencies in program design. Vulnerability reduction should be built into the design of project activities. For example, food for work can be used for water catchment, land reclamation and reforestation projects. Awardees can link with national early warning systems and institutions (e.g., FEWS NET, CILSS, DGPER, CONASUR, CNSA) to incorporate local food security, early warning and trigger indicator information into the national early warning system and thereby inform national humanitarian preparedness and response systems. Awardees can also develop seasonal food security projections to assist in pipeline management for preparedness.

And while safety nets are not as widely implemented as they are in other countries, Awardees can take a safety net approach for the most chronically food insecure and at-risk households.

Sustainability and exit strategies. The Title II program needs to give priority to sustainability issues and to developing criteria to help the Awardees determine when individuals can be transitioned out of the safety net programs and when their programs can exit specific communities. Exit strategies have been a weak point in the Burkina Title II DAP. In developing their approaches to sustainability, the Awardees will need to distinguish between the sustainability of the behavior changes and the technologies that they are promoting, and the sustainability of the institutional mechanisms they are using to deliver their programs. The Awardees also need to understand the different factors that drive sustainability in the public and private sectors, and recognize the importance of economic returns driving the latter.

Food for Education (FFE). If Title II Awardees identify food insecure areas where girls' enrolment, attendance and/or retention is low, and are considering FFE programs, they should not be implemented as standalone activities but should create synergy with other Title II activities. For primary schools, it is recommended that the FFE program include a THR for girls provided conditionally based on attendance. In designing a FFE component, the lessons learned from MCC Bright Project, CRS and WFP's school feeding programs should be reviewed and integrated as appropriate. The FFE program should also be offered to any preschools in overlapping areas and coordinated with the MEBA School Health and nutrition project to enhance program impact. In addition, Title II awardees should link with programs in overlapping areas that promote girls', particularly adolescent girls', education as well as literacy programs targeted to women. Incorporating an exit strategy that builds on and incorporates lessons learned in phasing-over FFE programs to the community and MEBA is advised. And, planning for FFE phase-over to the community as part of the initial Title II planning process is recommended so that a plan for the production (and storage) and/or donation of the foods (and other inputs) necessary for school meals can be developed early on with community leaders and parents and then implemented over time.

6.2.4 Monitoring and Evaluation Considerations

Developing an effective monitoring and reporting system that is responsive to internal management needs as well as the reporting requirements of USAID can be a challenge. To help clarify its requirements, FFP issued two information bulletins in August 2007 (see **Annex 6**). The first bulletin (FFPIB 07-01) describes the five sets of reporting requirements that are applicable to all MYAPs. These include: 1) Awardee program indicators, 2) FFP/ Washington's Performance Management Plan (PMP) indicators, 3) USAID Mission indicators, 4) "F" indicators, i.e., indicators required by the Director of US Foreign Assistance under the new US Strategic Framework for Foreign Assistance, and 5) President's Initiative to End Hunger in Africa indicators. The second bulletin (FFPIB 07-02) lays out new reporting requirements designed to enable FFP to better

track progress toward the objective and intermediate results identified in its 2006-2010 Strategic Plan. All Title II Awardees will need to follow this new guidance in developing and implementing their new MYAPs.

Wherever possible, Awardees should promote the availability and use of reliable nutrition data. The possible future expansion of the World Bank MCHN program to every district in the country could potentially provide a good source of nutrition data for monitoring trends. Several other key secondary data sources will become available in the next year or so: OFDA-funded nutrition surveys (at least to region level), an upcoming FAO-supported food consumption monitoring system; the FAO Dynamic Atlas for Burkina Faso; the anticipated FEWS NET updated livelihood zone map and livelihood profiles for Burkina Faso; and the next DHS survey.

Title II Awardees working in Burkina Faso should develop and monitor trigger indicators to warn of possible food security crises and enable mitigation and response activities in their program areas. Trigger indicators should be developed in consultation with USAID/FFP in West Africa and key stakeholders in Burkina Faso, including FEWS NET, MAHRH, CNSA, SONAGESS and CILSS. FFP advises prospective Awardees that if trigger indicators and thresholds are developed and agreed upon by the Awardee and USAID/FFP in advance, then demonstrating that the trigger thresholds have been reached can be a basis for accessing emergency resources for mitigation and response activities in a MYAP area.¹⁵⁹ To the extent possible, the trigger indicators should be developed in accordance with international standards and FEWS NET early warning indicators in the country.

6.2.5 Strategic Partnerships

A number of strategic partnerships could strengthen Title II MYAPs:

- To enhance program impact and sustainability, Awardees should work closely with district health offices to jointly plan and integrate Title II activities with health and nutrition activities delivered at the health center and community levels, such as vaccination and vitamin A campaigns, child health days, growth monitoring and screening for malnutrition. Another valuable partner is the village management committees (COGEST). Establishing a formal link between community nutrition/health activities and members of this committee is critical for community buy-in, ongoing support and sustainability.
- As previously mentioned, working with other GOBF programs serving the same population, such as the program to eliminate child marriage or hygiene promotion, offers the opportunity for additional strategic partnerships.
- Partnerships with NGOs implementing literacy programs or microfinance targeted to women are recommended.
- Working closely with NGOs and their partners in implementing health and nutrition programs at the community and health centers levels is critical to exploit complementary funding and services that can enhance Title II impact and sustainability.

¹⁵⁹ USAID/FFP 2007.

- When applicants are in the assessment and proposal development process, seeking partners with complementary strengths and experience in conducting formative research or implementing programs, such as, MCHN or and gender programs is recommended.

6.2.6 USAID Management Priorities

Burkina Faso does not have a USAID Mission, although USAID may place up to three staff members in the country in the next year.¹⁶⁰ The US Embassy has a relative small staff and budget. USAID's oversight of the Title II program will be provided by FFP/West Africa and FFP/Washington, supported by the in country staff once they are in place.

6.2.7 Cross-Cutting Issues

Risk and vulnerability. Under FFP's Strategic Plan, Title II Awardees are required to pay more attention to reducing vulnerability and risk. Vulnerability means that food security can be lost as well as gained, as a result of shocks that affect the many (e.g., droughts and floods) or shocks that affect the individual (serious illness or the death of the household head). Risks such as these are common in the food insecure areas where the Title II programs are working. Therefore, Awardees will need to give particular attention to integrating activities that will help prevent and mitigate these risks throughout their programs. This should start with a risk and vulnerability assessment for each target community. Types of activities can range from the introduction of drought-resistant crop varieties and improved technologies for storing crops to building the capacities of communities so that they are better able to respond and reduce the damage caused by shocks.

Capacity strengthening of local institutions. Capacity strengthening of national partners is a high priority need for ensuring that the food security objectives of the Title II program are achieved. Programs should be designed to ensure the sustainability of food security initiatives through strengthening the analytical and managerial capacities of these stakeholders, as well as that of community and household leaders. Capacity strengthening should include activities designed to strengthen communities' capacities to organize, plan and represent their interests in broader fora. It is essential to emphasize capacity strengthening in the areas of nutrition programming and analysis, which are very weak in Burkina Faso. Awardees also need to focus on strengthening the capacities of their own staff and volunteers, providing them with on-going training and frequent, supportive supervision in which the supervisor provides constructive feedback to improve staff performance and enhance learning. Capacity strengthening should be integrated into the design of all food security program activities rather than existing as a stand-alone objective of the program. Awardees also have a role to play as important stakeholders in assisting and supporting the GOBF with the development and implementation of its food security-related policies and programs.

¹⁶⁰ Pers Comm with Charge d'Affaires and Stefanie Sobol.

7. COLLABORATION AND RESOURCE INTEGRATION

Numerous opportunities are available to the FFP Title II Program for collaboration and resource integration with in-country partners. Prospective MYAP Awardees are also encouraged to demonstrate how their Title II programs build on the comparative advantage of Title II and maximize synergies and complementarities with other programs, including USAID regional and centrally funded projects.

Prospective Awardees should indicate how their programs align with and support GOBF key strategies and programs. This includes, but is not limited to, the National Nutrition Policy, the National Protocol for the Management of Acute Malnutrition, and the Operational Strategy and Program for Sustainable Food Security and Poverty Reduction (**Table 13**).

Prospective Awardees should ensure they are in a position to participate in the nutrition and food security interagency coordination groups (e.g., CNCN, CNSA). This should assist in strengthening the culture of data sharing and collaborative planning in the country.

Prospective Awardees proposing to implement activities related to MCHN services are encouraged to consult with the MOH, WFP, the World Bank and their implementing partners, to discuss possible collaboration and resource integration. MOH focal points recommended for consideration include the DN, the Division of Family Health and the Division of Hygiene and Sanitation. In cases where integration of resources is possible, prospective Awardees are encouraged to work closely with the MOH/DN, WFP, UNICEF and World Bank to ensure complementarity, take advantage of synergies (see **Section 6.2.3**) and avoid duplication among services for beneficiaries. Additional potential partners include PMI and NTD.

All prospective Awardees proposing programs related to livelihoods, agriculture and income generation are encouraged to consult with the MAHRH and the CNSA to discuss possible collaboration and resource integration.

All prospective Awardees proposing programs related to early warning and response, development relief and preparedness are encouraged to consult with CONASUR, SONAGESS and FEWS NET to discuss possible collaboration, data sharing, collaborative analysis and resource integration. Prospective Awardees proposing programs that provide safety nets should consider discussing opportunities for collaboration with the MASSN.

Prospective Awardees proposing school feeding activities are encouraged to consult with MEBA to ensure complementarity, consider longer-term sustainability issues and capitalize on synergy opportunities.

If designing FFE programs, the applicant should consider a partnership with the Direction de la Promotion de l'Education des Filles in overlapping areas to capitalize on their campaign to increase enrolment of girls.

Finally, prospective Awardees are encouraged to consider working together in consortia to expand the capacity of the Awardees to conduct comprehensive programming and capitalize on the synergies required for impact on chronic food insecurity and chronic malnutrition in Burkina Faso.

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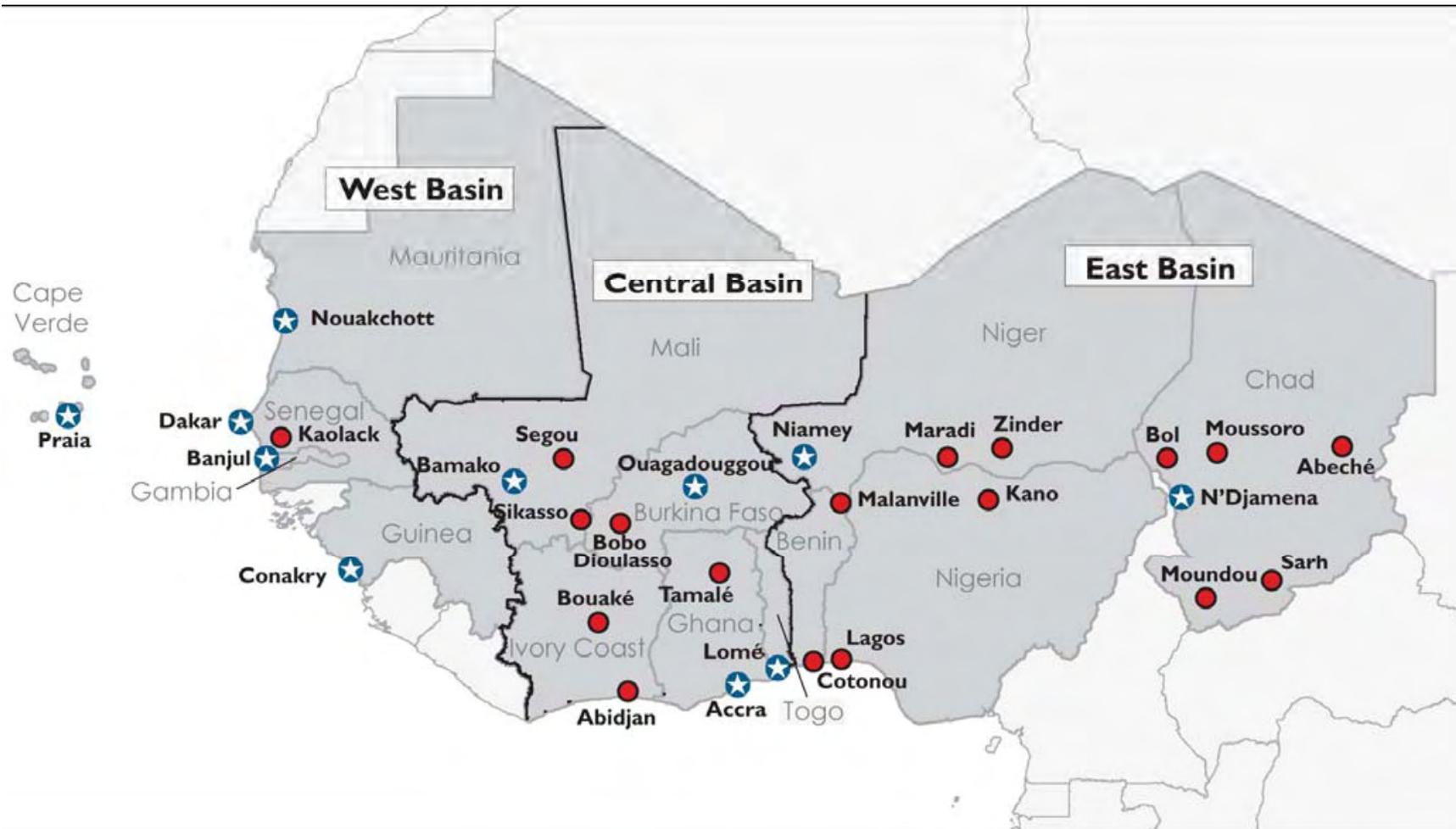
ANNEX I. MAPS

Annex Ia. Administrative Map of Burkina Faso



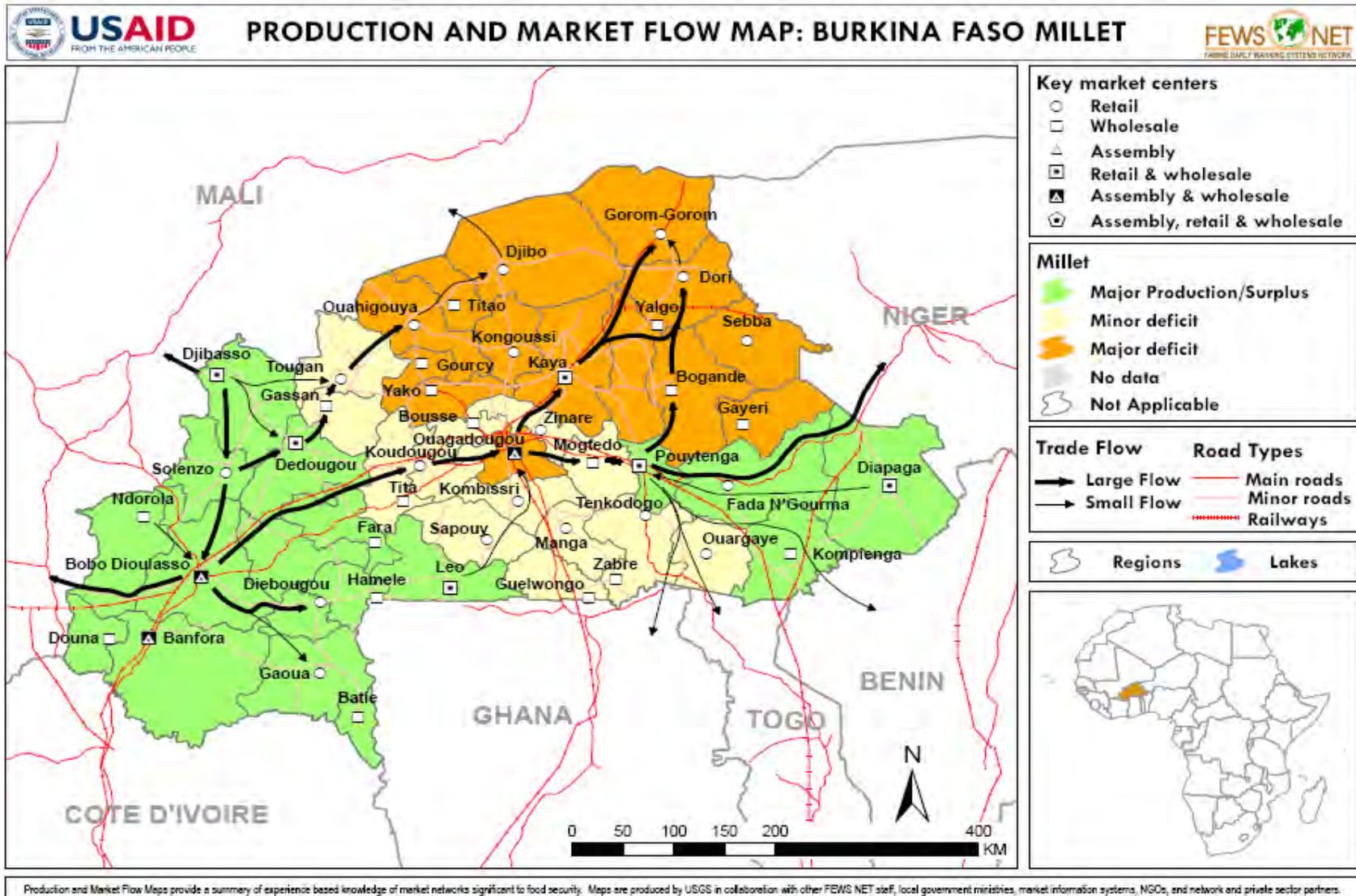
Source: World Health Organization 2005

Annex 1b. Market Basins in West Africa



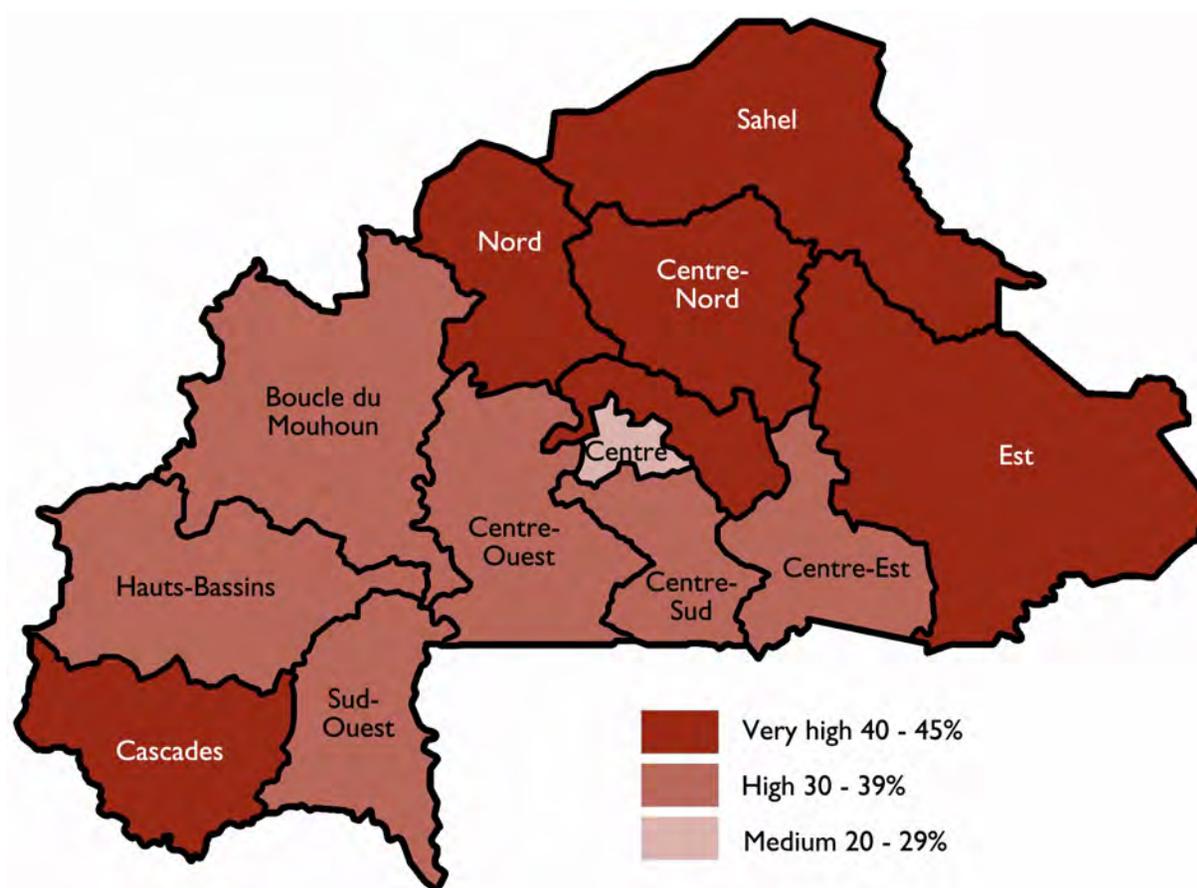
FEWS NET West Africa Monthly Price Bulletin, March 2009.

Annex 1c. Map of Markets and Flows for Millet in Burkina Faso

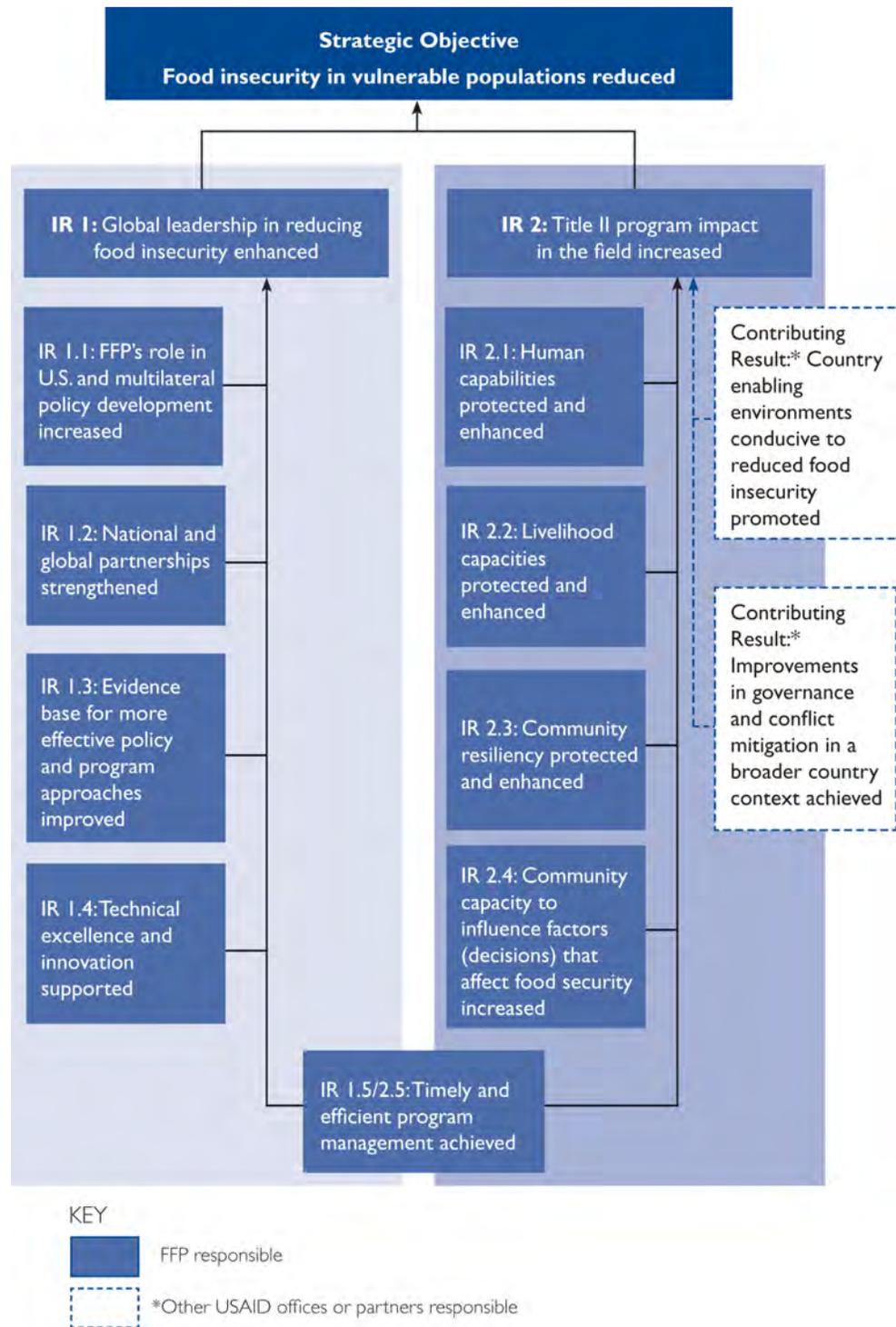


FEWS NET. Available: www.fews.net/Pages/marketcenter.aspx?eb=bf&l=en&loc=3.

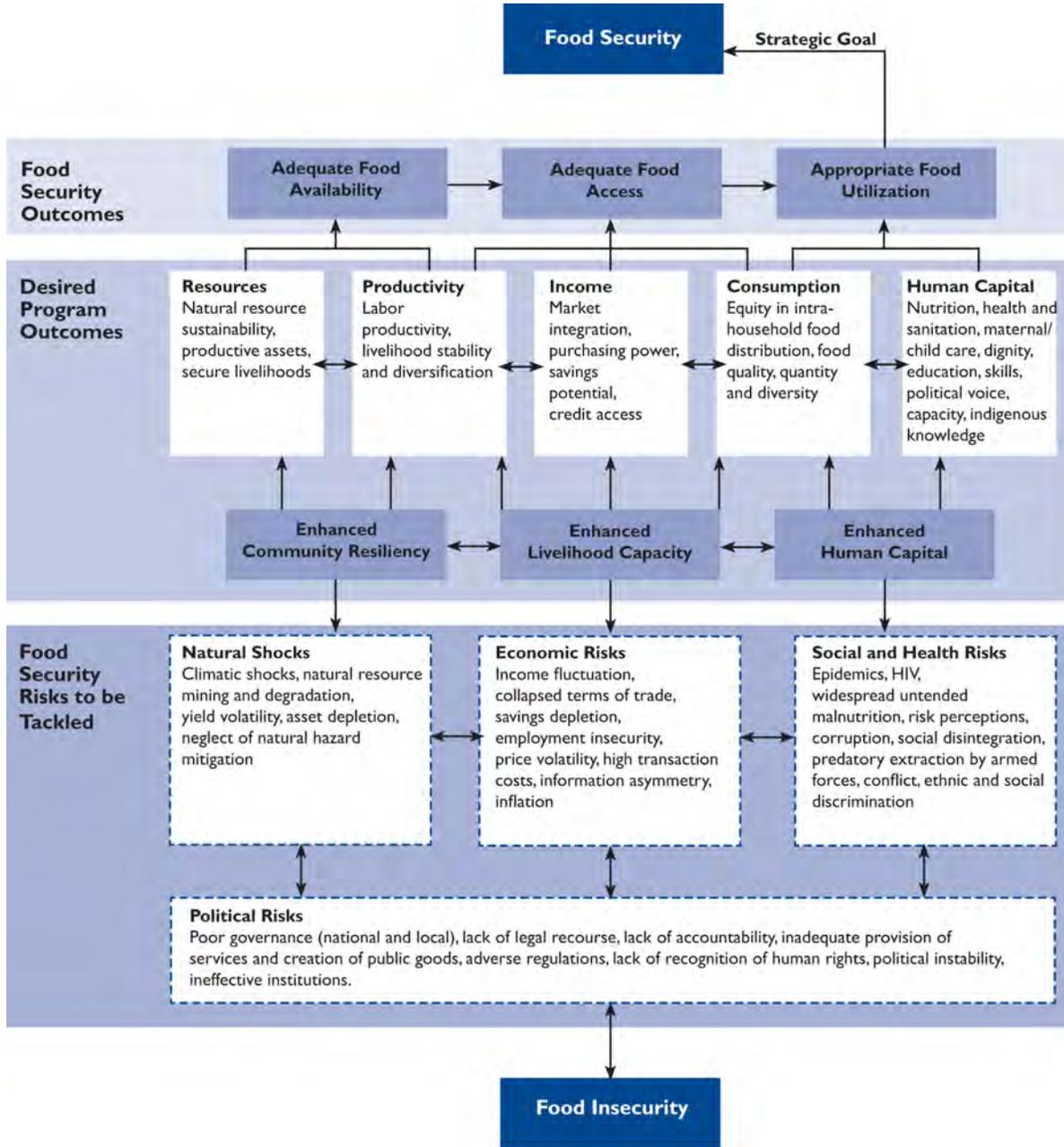
Annex Id. Stunting Levels by District in Burkina Faso



ANNEX 2. FFP STRATEGIC FRAMEWORK FOR 2006-2010



ANNEX 3. FFP EXPANDED CONCEPTUAL FRAMEWORK FOR UNDERSTANDING FOOD SECURITY



Source: Webb and Rogers. *Addressing the "In" in Food Insecurity*, 2003.

ANNEX 4. TABLES

ANNEX 4A. NATIONAL CEREAL PRODUCTION (2004-2008)

		AGRICULTURAL SEASON*					AVERAGE (2004-2008)
		2004	2005	2006	2007	2008	
Staple Cereals (MT)	Sorghum (<i>Sorgho</i>)	1,552,911	1,515,774	1,507,162	1,875,046	1,517,021	1,134,212
	Millet (<i>Mil</i>)	1,196,253	1,175,038	966,016	1,255,189	1,106,025	937,630
	Maize (<i>Mais</i>)	799,052	866,664	533,874	1,013,633	738,939	481,474
	Rice (<i>Riz</i>)	93,516	113,724	68,916	195,101	109,152	74,501
Other Crops (MT)	Cotton (<i>Coton</i>)	712,707	759,858	377,364	** 619,214	** 600,902	535,367
	Cowpeas (<i>Niebe</i>)	444,712	436,156	253,190	** 724,131	** 426,908	276,349
	Groundnuts (<i>Arachide</i>)	220,525	215,447	244,922	** 357,284	** 256,697	245,307
	Sesame (<i>Sesame</i>)	25,060	22,887	18,802	** 45,799	** 24,868	11,794
	Sweet potato (<i>Patate</i>)	70,815	81,434	61,916	** 100,297	** 71,065	40,864
	Yam (<i>Igname</i>)	18,322	22,157	19,684	** 33,554	** 36,682	89,695
	Soy (<i>Soja</i>)	10,067	5,867	5,850	** 17,162	** 8,284	2,473

*"Agricultural season" refers to the calendar year of the main season harvest, much of which is consumed the next calendar year.

Source: GOBF/MAHRH.

ANNEX 4B. NATIONAL CEREAL BALANCE (2004-2008)

	2004	2005	2006	2007	2008
Population (as of April 30)	12,614,854	12,930,067	13,253,884	14,275,689	15,527,257
Availability	2,714,764	3,111,131	3,328,009	2,805,177	3,646,209
Available production	2,444,327	3,074,048	3,094,456	2,604,814	3,510,093
Initial stocks	270,437	37,083	233,553	200,363	136,116
Needs*	2,520,934	2,617,366	2,676,937	2,849,183	3,168,231
Human consumption	2,396,822	2,456,713	2,518,238	2,712,381	2,950,179
Final stocks	124,112	160,654	158,699	136,802	218,052
Gross Excess (+) or Deficit (-)	193,829	493,765	651,072	-44,006	477,978
Imports and Exports	236,352	210,762	319,853	286,806	239,001
Commercial imports	248,094	229,398	325,884	271,349	247,794
Humanitarian aid	24,210	12,494	25,100	41,232	8,908
Expected exports	35,952	31,130	31,131	25,775	17,701
Gross Excess (+) or Deficit (-)	430,181	704,527	970,925	242,800	716,979
Availability per person	234	257	275.2	217	250

Note: Calculations are based on GOBF standard for requirements of 190 kg/person/year.

Source: GOBF/MAHRH.

ANNEX 4C. POVERTY PREVALENCE AND URBANIZATION BY REGION

REGION	PROVINCES	POPULATION (2006 EST.)		POVERTY (2003 EST.)	URBANIZATION (2003 EST.)	
		Population of region	% of national population	% below national poverty line	% Urban	Major urban centers
Boucle du Mouhoun	Bale, Banwa, Kossi, Mouhoun, Nayala, Sourou	1,478,392	10	60.4	7.9	Dedougou
Cascades	Comoe, Leraba	430,677	4	39.1	18.4	
Centre	Kadiogo	1,338,138	11	22.3	77.5	Ouagadougou
Centre Est	Boulgou, Koulpelogo, Kouritenga	1,054,955	8	55.1	16.4	Pouytenga
Centre Nord	Bam, Namentenga, Sanmatenga	1,154,952	9	34.0	7.7	Kaya
Centre Ouest	Boulkiemde, Sanguie, Sissili, Ziro	1,116,631	9	41.3	12.5	
Centre Sud	Bazega, Nahouri, Zoundweogo	643,391	5	66.1	10.2	
Est	Gnagna, Gourma, Komandjoari, Kompienga, Tapoa	1,137,744	9	40.9	6.3	
Hauts Bassins	Houet, Kenedougou, Tuy	1,389,258	10	34.8	34.7	Bobo-Dioulasso
Nord	Loroum, Passore, Yatenga, Zonoma	1,176,701	9	68.6	11.4	Ouahigouya
Plateau Central	Ganzourgou, Kourweogo, Oubritenga	729,041	5	58.6	7.3	
Sahel	Oudalan, Seno, Soum, Yagha	936,612	7	37.2	6.5	
Sud Ouest	Bougouriba, Loba, Nounbiel, Poni	530,654	5	56.6	10.9	
NATIONAL		13,117,147	100	46.4		

Source: INSD At a Glance, EBCVM 2003

ANNEX 4D. REPRODUCTIVE HEALTH AND INFANT MORTALITY INDICATORS

REGIONS	INTER-PREGNANCY BIRTH INTERVAL (MONTHS)		
National Sample	35.8	6.2	81
Rural	35.6	6.9	95
Urban	39.5	3.1-Ouaga 4.4-other cities	70
Est	34.9	7.7	101
Sahel	33.0	7.4	122
Cascades	35.1	6.1	113
Nord	34.1	7.7	104
Centre Nord	37.0	7.0	85
Plateau Central	37.3	6.4	75
Boucle du Mouhoun	34.5	6.7	88
Centre Est	38.0	6.0	64
Centre Ouest	36.5	6.3	110
Centre Sud	39.9	5.4	67
Sud Ouest	36.2	6.7	113
Hauts Bassins (with Bobo Dioulasso)	34.7	6.4	88
Centre (without Ouagadougou)	36.4	6.2	82

ANNEX 4E. MARRIAGE AND BIRTHS

REGIONS	MEDIAN AGE FOR WOMEN AT THEIR FIRST MARRIAGE	PERCENT OF MARRIED WOMEN IN POLYGAMOUS MARRIAGES (%)	MEDIAN AGE AT FIRST BIRTH (YEARS)	PERCENT OF ADOLESCENTS (AGES 15-19) PREGNANT OR MOTHERS (%)
National Sample	17.7	48.4	19.4	23.2
Rural	17.6	51.9	19.2	27.8
Urban	19.6	28.1	na	11.3
Est	17.2	41.4	18.6	46.0
Sahel	16.0	38.2	18.1	31.9
Cascades	17.3	57.5	19.0	27.2
Nord	17.8	52.5	19.3	31.2
Centre Nord	17.6	60.8	19.3	28.9
Plateau Central	18.0	52.4	19.8	11.5
Boucle du Mouhoun	17.6	53.3	19.0	18.4
Centre Est	18.2	45.3	19.8	15.6
Centre Ouest	17.9	66.9	19.7	17.3
Centre Sud	17.6	47.5	19.7	23.4
Sud Ouest	16.9	49.0	19.3	22.0
Hauts Bassins (with Bobo Dioulasso)	17.7	49.2	19.2	30.5
Centre (without Ouagadougou)	18.6	40.4	19.9	27.5

Source: DHS (2003)

ANNEX 4F. EDUCATION AND LITERACY

REGIONS	PERCENT OF CHILDREN ATTENDING PRIMARY SCHOOL (%)		PERCENT OF CHILDREN ATTENDING SECONDARY SCHOOL (%)		PERCENT OF WOMEN WHO ARE LITERATE (%)	PERCENT OF MEN WHO ARE LITERATE (%)
	Boys	Girls	Boys	Girls		
National Sample	35.0	28.3	11.9	9.4	15.9	31.5
Rural	28.4	20.9	5.9	2.5	5.8	18.6
Urban	80.2	72.3	39.2	30.7	52.7	71.8
Est	14.4	10.6	2.1	1.3	4.3	11.2
Sahel	20.8	14.1	4.0	1.6	3.6	10.4
Cascades	37.4	30.6	16.2	8.7	16.7	42.2
Nord	29.1	19.0	6.5	3.2	7.3	26.1
Centre Nord	32.2	22.6	7.7	5.3	5.5	13.7
Plateau Central	37.3	28.9	5.6	6.0	8.5	17.6
Boucle du Mouhoun	32.0	29.1	6.8	7.5	12.0	21.6
Centre Est	34.8	26.3	14.1	6.1	12.9	33.3
Centre Ouest	34.7	26.4	9.4	3.9	13.7	27.8
Centre Sud	36.9	32.3	7.5	5.5	8.2	24.4
Sud Ouest	26.4	20.3	12.9	7.3	8.0	17.1
Hauts Bassins (with Bobo Dioulasso)	42.1	31.0	11.5	10.6	18.9	40.2
Centre (without Ouagadougou)	53.7	42.7	10.2	6.4	10.5	29.8

Source: DHS (2003)

ANNEX 5. INTERVIEWS CONDUCTED

DATE	INSTITUTION	INDIVIDUAL(S)	EMAIL
12/10/08	FEWS NET	Mamoudou Sy, National Representative, Burkina Faso	msy@chemonics.com
1/29/09	USAID	Steven Gilbert, Agreement Officer Technical Representative (AOTR), DCHA/FFP Zema Semunegus, Food for Peace Team Leader, USAID/FFP/WA Dramane Mariko, Food for Peace Officer, USAID/FFP/WA Melissa Knight, Agricultural Development Officer, USAID/WA Jorge Oliveira, Food Security and Natural Resource Management Officer, USAID/WA	sgilbert@usaid.gov zsemunegus@usaid.gov dmariko@usaid.gov mknight@usaid.gov joliveira@usaid.gov
3/5/09	USAID	Gordon Bertolin, Program Analyst, AFR/WA Bahiru Duguma, Senior Agricultural Advisor, EGAT/AG Laura Bix, Research and Technical Advisor, GH/HIDN/NUT Jennifer Jacobs, Front Office Assistant, GH/PRH Steve Gilbert, Country Backstopping Officer, DCHA/FFP/DP Elizabeth Kibour, Africa Regional Specialist, GH/HIDN Cheryl Kim, Program Officer, AFR/WA Tim Lavelle, Senior Food Security Advisor, AFR/DP Roy Miller, Senior Health Advisor for Strategic Information, AFR/SD Phil Steffen, Agricultural Recovery Advisor, EGAT/AG/ARPG	gbertolin@usaid.gov baduguma@usaid.gov lbix@usaid.gov jjacobs@usaid.gov sgilbert@usaid.gov ekibour@usaid.gov ckim@usaid.gov tlavelle@usaid.gov romiller@usaid.gov psteffen@usaid.gov
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ANNEX 6. DESCRIPTIONS OF COMMUNITY-BASED NUTRITION PROGRAMS

PD/HEARTH, COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) AND COMMUNITY-BASED GROWTH PROMOTION

COMMUNITY-BASED PROGRAM	PD/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) ¹⁶¹	COMMUNITY-BASED GROWTH PROMOTION
Brief Summary Description	Program to rehabilitate underweight children. Positive Deviance Inquiry (PDI) identifies successful practices and strategies of poor local families that have healthy children. In two week intensive behavior change program (Hearth sessions), volunteers and caregivers prepare and feed a recuperative meal of locally available foods, and learn and practice affordable, acceptable, effective and sustainable PD care practices identified in families of healthy community children. The Hearth ingredients are provided by participating families so that they learn that they can afford the foods, where to acquire them, and how to use them. Families are followed up with home visits after graduating from the Hearth session to ensure continued growth.	A community-based approach for managing cases of SAM, which includes outpatient care for SAM without medical complications and inpatient care for SAM with complications. Community workers are trained to use MUAC and assess edema to actively seek and refer SAM and MAM cases to the CMAM program. Based on a medical evaluation, and using routine medication and ready to use therapeutic food (RUTF), CMAM treats the majority of cases at home. SAM cases with medical complications are referred to inpatient care for stabilization before being released to outpatient care for full recovery. CMAM programs may also include a component to manage moderate acute malnutrition with routine medications and supplementary feeding.	Strategy implemented at the community level to prevent malnutrition and improve child growth through monthly monitoring of child weight gain, one-on-one counseling and negotiation for behavior change, home visits, and integration with other health services. Action is taken based on whether a child has gained adequate weight, not their nutritional status, identifying and dealing with growth problems before the child becomes malnourished. A study of the AIN-C Program in Honduras found that it had a long-term average cost per child of \$6.82 (\$5.91 for just children under 2), and cost about 11% of a traditional, facility-based program.
Objectives	<ul style="list-style-type: none"> • Rehabilitate malnourished children • Enable families to maintain child's improved nutritional status • Prevent malnutrition among other children born in the community • Improve care and feeding practices 	<ul style="list-style-type: none"> • To treat SAM in the community • To reduce morbidity and mortality of children with SAM 	<ul style="list-style-type: none"> • Improve child growth • Prevent malnutrition
Target Group	Children age 6 to 36 months with moderate and severe malnutrition, (< -2 Z-scores weight-for-age)	<ul style="list-style-type: none"> • Children age 6-59 months with SAM (MUAC < 110, weight-for-height < -3 Z or $< 70\%$, and/or bilateral pitting edema) 	Children 0-24 months

¹⁶¹ CMAM originated as an emergency care model known as "Community Therapeutic Care" or CTC.

COMMUNITY-BASED PROGRAM	PD/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) ¹⁶¹	COMMUNITY-BASED GROWTH PROMOTION
		<ul style="list-style-type: none"> • Children with moderate acute malnutrition (<-2 Z-scores weight-for-height) may be included if there is a supplementary feeding program • Children under 6 months with receive inpatient care 	
Criteria	<p>Consider PD/Hearth if you can answer yes to the following questions.</p> <ul style="list-style-type: none"> • Are at least 30 percent of children ages 6 to 36 months moderately or severely underweight (WFA <-2Z)? • Is nutrient-rich food available and affordable? • Are homes located within a short distance of each other? • Is there is a community commitment to overcome malnutrition? • Is there access to basic complementary health services such as de-worming, immunizations, malaria treatment, micronutrient supplementation and referrals? • Is there a system (or can a system be created) for identifying and tracking malnourished children? • Is there organizational commitment from the implementing agency? 	<ul style="list-style-type: none"> • Availability of national protocols for the management of acute malnutrition • Availability of RUTF and therapeutic milk (F75/F100) • Availability of trained staff • Caseload of children with SAM exceeds 2% of population of children 6- 59 months • Communities with greater than 10% global acute malnutrition among children 6-59 months • May be considered for use in communities post-emergency or with frequent periodic emergencies 	<ul style="list-style-type: none"> • Best used where underweight prevalence is high • Community motivation to reduce underweight • A large cadre of committed community volunteers • A central location within a reasonable walk for most community members
Unique Aspects	<ul style="list-style-type: none"> • Caregivers contribute local foods • Community-level rehabilitation • Uses locally available foods and feasible practices • Engages community in addressing malnutrition • Prevention and recuperation 	<ul style="list-style-type: none"> • Community-based approach for treating acute malnutrition on an out-patient basis • Use of Ready to Use Therapeutic Foods (RUTF) instead of milk-based formulas • Community outreach for active case finding and referral to catch children with SAM or MAM as early as possible 	<ul style="list-style-type: none"> • Uses trained community-selected volunteers • Closely tied to evidence-based interventions • Uses “adequate weight gain” as early indicator of malnutrition • Referral and counter-referral system with health posts/centers

COMMUNITY-BASED PROGRAM	PD/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) ¹⁶¹	COMMUNITY-BASED GROWTH PROMOTION
	<ul style="list-style-type: none"> • Follow-up home visits • Intensive behavior change 		<ul style="list-style-type: none"> • Counseling, negotiation • Supervision, home visits • Active community involvement in problem-solving & planning • Potential contact for MUAC screening and SAM referral • Addresses causes of the poor growth, not just the symptoms • Cost analysis conducted of AIN-C in Honduras: long-term average cost of \$6.82 per child participant (\$5.91 for just children under 2), and \$.44 per capita. This is 11% of the cost of a traditional, facility-based program
<p>Needed Elements for Quality Programming</p>	<ul style="list-style-type: none"> • Positive Deviance Inquiry done in every community • Growth monitoring to identify malnourished children • BCC strategies for larger community • Health services to address common childhood diseases • Community mobilization • Qualitative skill sets to engage community in conducting and analyzing PDI • Skills in anthropometric measurement • Ability to identify children with SAM for referral • Technical assistance from someone skilled in the PD/Hearth approach • Good supervision skills • Access to basic complementary health services (immunization, deworming, micronutrients) 	<ul style="list-style-type: none"> • Active community case finding using MUAC and assessment of edema • BCC strategies for sustainable prevention • Health services to address common childhood diseases • Skills in anthropometric measurement • Trained community members who can identify cases of severe or complicated acute malnutrition for referral • Technical assistance from someone skilled in the CMAM approach • Sufficient budget for a supply of Ready to Use Therapeutic Food (RUTF) • Trained clinical staff to conduct medical evaluation, identify medical complications, refer, and treat cases 	<ul style="list-style-type: none"> • Linked health and nutrition interventions • Needs large network of community-based workers or volunteers (2-3 community workers per 20 children) • Supportive and quality monitoring and supervision essential • Quality of counseling important • Community participation in planning • Caretaker involvement in monitoring the child's weight gain • Analysis of causes of inadequate growth, with guidelines for taking actions

COMMUNITY-BASED PROGRAM	PD/HEARTH	COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) ¹⁶¹	COMMUNITY-BASED GROWTH PROMOTION
Information Resources	Positive Deviance / Hearth: A Resource Guide for Sustainably Rehabilitating Malnourished Children. www.coregroup.org/working_groups/pd_hearth.cfm	Training Guide for Community-based Management of Acute Malnutrition. www.fanta-2.org Community-based Therapeutic Care: A Field Manual. www.fanta-2.org	Griffiths, et al. Promoting the Growth of Children: What Works. Tool #4, The World Bank Nutrition Toolkit, The World Bank (DC). www.worldbank.org (Search for “Nutrition Toolkit”) Fiedler. A cost analysis of the Honduras Community-based Integrated Child Care Program. World Bank HNP Discussion Paper, May 2003. http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/Fiedler-ACostAnalysis-whole.pdf

COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI), COUNSELING AT KEY CONTACT POINTS, HOME VISITS

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (EX. AUXILIARY NURSE, CHWS, CARE GROUPS)
Brief Summary Description	Community program to address malnutrition, measles, malaria, pneumonia, and diarrhea. Four key elements are: facility/community linkages; care and information at the community level; promotion of 16 key family practices; coordination with other sectors	Counseling from a health care provider to a caregiver during the delivery of health services. Counseling messages can be personalized to the needs of the mother/caregiver or child. Contact points include: <ul style="list-style-type: none"> • IMCI or sick child visits • Well child visits • Immunizations • Prevention of Mother to Child Transmission (PMTCT) clinics • Antenatal care visits • Delivery 	Home visits, conducted by community health worker/volunteer or nutrition volunteer provide outreach, follow up and support to pregnant women, lactating women, caregivers of children and their families. Visits may include checking on the health of a baby, counseling caregivers, or following up with a child who has experienced growth faltering or illness.

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (EX. AUXILIARY NURSE, CHWS, CARE GROUPS)
		<ul style="list-style-type: none"> • Postpartum care • Growth monitoring and promotion • Child health days • Recuperative feeding sessions 	
Objectives	<ul style="list-style-type: none"> • Reduce morbidity and mortality of children under 5 • Address malnutrition, malaria, pneumonia, diarrhea, measles 	To improve care and feeding practices for pregnant and lactating women and children under 5	<ul style="list-style-type: none"> • Ensure child's health or growth is improving • Improve care and feeding practices • Support family
Target Group	Children 0-59 months	<ul style="list-style-type: none"> • Pregnant and lactating women • Mothers/caregivers of children under 5 • Influencers of children under 5 	Pregnant and lactating women, mothers/caregivers of children 0-23 or up to 59 months
Criteria	<ul style="list-style-type: none"> • National IMCI policies and protocols • Collaborating health facility for patient referral • A cadre of available community health workers or volunteers • High prevalence of common childhood illnesses 	<ul style="list-style-type: none"> • Time available for counseling • Adequate coverage: community where women access services at the health facility 	<ul style="list-style-type: none"> • Willing and available volunteers • Walkable community
Unique Aspects	<ul style="list-style-type: none"> • Integrated approach focuses on whole child, not disease • Community level prevention & treatment • Linked with health facilities • Evidence-based protocols for prevention and treatment • Addresses relationship among illnesses • All ENA messages are part of IMCI key family practices • Mostly applied to children who present with illness • Nutrition component often needs strengthening 	<ul style="list-style-type: none"> • Messages targeted to stage of life cycle at which the mother/caregiver seeks the service • Individually tailored guidance 	<ul style="list-style-type: none"> • Opportunity to tailor messages to individual needs and to engage in dialogue to negotiate change. • Community members provide the support and counseling • Individually tailored guidance and support

NUTRITION PROGRAM	COMMUNITY INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (C-IMCI)	COUNSELING AT KEY CONTACT POINTS	HOME VISITS (EX. AUXILIARY NURSE, CHWS, CARE GROUPS)
Needed Elements for Quality Programming	Involvement and commitment of the health sector needed	<ul style="list-style-type: none"> • Sound training on counseling and negotiation skills • Counseling materials developed with sound formative research • Time and space available for counseling • Supportive supervision 	<ul style="list-style-type: none"> • Formative research to inform design of a BCC strategy and materials. • Training in counseling and negotiation. • On-going supportive supervision • Materials for a low literacy population, if necessary
Information Resources	C-IMCI Program Guidance www.coregroup.org/working_groups/C-IMCI_Policy_Guidance_Jan%202009.pdf		

SUPPORT GROUPS, CARE GROUPS AND CHILD HEALTH WEEKS/DAYS

NUTRITION PROGRAM	SUPPORT GROUPS (MOTHERS/ GRANDMOTHERS¹⁶², ETC)	CARE GROUPS	CHILD HEALTH WEEKS/DAYS
Brief Summary Description	Way in which peers can learn from each other, health care providers, grandmothers or members of the community about optimal child care and feeding practices. This is a comfortable, supportive, and respectful environment. May be mother to mother, facilitated by a health care provider, grandmother or senior woman or other community member.	Community-based strategy for improving coverage and behavior change through building teams of women who individually represent, serve and promote health among women in 10-15 households in their community. The leaders form a Care Group that meets weekly or bi-weekly and is trained by a paid facilitator. These Care Group members visit the women for whom they are responsible, offering support, guidance and education to promote behavior change.	Occurs every 6 months to deliver vitamin A supplements and other preventive health services to children at the community level. In addition to vitamin A – services have included: catch-up immunization, providing iron/folic acid to pregnant women, deworming, iodized salt testing, re-dipping ITNs, promotion of infant and young child nutrition.
Objectives	Promote optimal child care and feeding behaviors	<ul style="list-style-type: none"> • Improve coverage of health programs • Sustainable behavior change 	<ul style="list-style-type: none"> • Increase coverage of vitamin A supplementation

¹⁶² Utilizing grandmothers is a slightly different approach as grandmothers aren't peers, rather they provide leadership and guidance consistent with their familial and community roles. Because of their roles as grandmothers/mothers-in-law, they have influence over their daughters-in-law/daughters they can be positively exploited.

NUTRITION PROGRAM	SUPPORT GROUPS (MOTHERS/ GRANDMOTHERS ¹⁶² , ETC)	CARE GROUPS	CHILD HEALTH WEEKS/DAYS
			<ul style="list-style-type: none"> • Increase coverage of other nutrition interventions • Provide de-worming
Target Group	Mothers of young children (<2, <3 or < 5years)	Mothers of children 0-59 months	Children 0-59 months
Criteria	<ul style="list-style-type: none"> • Mothers willing and able to meet and share with each other • A community in which IYCF practices need to be improved 	<ul style="list-style-type: none"> • Community with houses close enough together so that volunteers can walk between them and to meetings • Need a sufficient volunteer pool 	Vitamin A program in-country
Unique Aspects	<ul style="list-style-type: none"> • Groups are composed of peers • Safe environment for mothers to learn and share • Research shows the level of influence of peers on behavior change in strong¹⁶³ • Requires minimal outside resources 	<ul style="list-style-type: none"> • Trained “leader mother” volunteers provide support to other mothers • Small number of paid staff reach large population (through leader mothers) • Peers support • Can support multiple health initiatives 	<ul style="list-style-type: none"> • High coverage rates • Feasible in diverse settings • Community census and social mobilization
Needed Elements for Quality Programming	<ul style="list-style-type: none"> • Group leader must have strong facilitation skills • Training may be necessary • Variation in methodology from very interactive to lecture driven • Can link into the non-health sector 	<ul style="list-style-type: none"> • Time available – leader mothers must have 5 hours per week to volunteer • Comprehensive and ongoing training of leader mothers • Long start-up time (due to training) – project should be of 4-5 year duration • Supervisor promoter ratio should be 1:5 	<ul style="list-style-type: none"> • Best suited for areas with high prevalence of vitamin A deficiency • Require coordination with district health plan • Assure adequate supply • Volunteers and supervisors need to be trained • Substantial social mobilization • Follow-up/record-keeping important • Part of a larger nutrition strategy
Information Resources	Linkages. Training of Trainers for Mother to Mother Support Groups www.linkagesproject.org/media/publications/Training%20Modules/MTMSG.pdf	World Relief, CORE. The Care Group Difference www.coregroup.org/diffusion/Care_Manual.pdf	

¹⁶³ “Community-based Strategies for Breastfeeding Promotion and Support in Developing Countries”, World Health Organizations and LINKAGES, WHO 2003.

ANNEX 7. PREVENTING OF MALNUTRITION IN CHILDREN UNDER TWO APPROACH (PM2A)

What is PM2A?

PM2A is a food-assisted approach to reducing the prevalence of child malnutrition by targeting a package of preventive health and nutrition interventions to all pregnant and lactating women and children under 2, regardless of nutritional status. The PM2A approach was rigorously studied in a Title II Program in Haiti and found to be more effective in reducing child malnutrition than a recuperative approach that provided similar services but targeted only malnourished children.

Who is targeted by PM2A?

- Pregnant women
- Lactating women with children under 6 months of age
- Children under 2

What are the core program components of PM2A?

PM2A is a comprehensive approach that includes several essential and complementary interventions:

- **Conditional food ration for individual and household:** PM2A provides a dry individual ration to all: a) pregnant women, b) lactating women until child is 6 months old, and c) children 6-23 months. PM2A also provides a dry household ration to families for the entire duration of receipt of the individual ration. All members of the target group are eligible to receive the ration if they participate in the other essential PM2A components including preventive health services and BCC sessions. Guidance on calculating the ration is available in the USAID Commodities Reference Guide: http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/
- **Preventive health services:** The PM2A approach requires that mothers/caregivers access essential health services including antenatal care, postpartum care, immunization, vitamin A supplementation, iron/folic acid supplementation during pregnancy, and regular health visits. The PM2A approach aims to create demand and improve quality and access of the services provided by the MOH or other agency (e.g., UNICEF).
- **BCC:** BCC is focused on improving care and feeding practices. Messages should be targeted according to pregnancy status and age group of child. The BCC program, messages, and materials should be based on sound formative research and delivered through multiple contact points.
- **Community outreach:** Community outreach is needed to create awareness, identify program beneficiaries and educate the community about the program, its goals and requirements, and to maximize program coverage.
- **Home visits:** Trained community volunteers conduct home visits to provide counseling, support and referral (as necessary) to: women in late stages of

pregnancy, newborns, children with growth faltering, ill children, or those who have stopped attending required services.

- **Screening and referral for severe acute malnutrition (SAM):** Children who suffer from SAM urgently require treatment. PM2A programs should screen 6-59 month old children with MUAC to identify SAM cases and refer them to appropriate treatment.
- **Quality Assurance:** The program design must be guided by sound *formative research* and the program implementation consistently improved through *operations research*.

Key Considerations for PM2A

- Most appropriate when there is widespread chronic malnutrition in the target population.
- Should be implemented in a location where the essential preventive health services are assured for the duration of the project.
- Catchment area must be able to absorb the quantity of food needed (BEST analysis)
- Logistics, cost or accessibility of geographic location may affect geographic targeting
- Should be coordinated with services provided by host country governments, donor agencies and other programs operating in the same catchment area
- A stable political and social environment with limited in and out-migration is necessary to optimal implementation

ANNEX 8. RESOURCES ON COMMUNITY-BASED PROGRAMS AND BEHAVIOR CHANGE PROGRAMMING

COMMUNITY-BASED NUTRITION PROGRAMS

PVO Child Survival and Health Grants Program. *Nutrition Technical Reference Materials*.
www.childsurvival.com/documents/trms/tech.cfm

Community-based Growth Promotion

Griffiths, Marcia, Kate Dickin and Michael Favin (1996). *Promoting the Growth of Children: What Works*. Tool #4. The World Bank Nutrition Toolkit, The World Bank.
<http://siteresources.worldbank.org/NUTRITION/Resources/Tool4-Frontmat.pdf>

C-IMCI

CORE (2001). *Reaching Communities for Child Health and Nutrition: A Framework for Household and Community IMCI*.
www.coregroup.org/working_groups/c_imci_full_english.pdf

PD/Hearth

Core (2003). *Positive Deviance/Hearth: A resource guide for sustainably rehabilitating malnourished children*.
www.coregroup.org/working_groups/pd_hearth.cfm

Core (2005). *Positive Deviance/Hearth: Essential Elements*. A resource guide for sustainably rehabilitating malnourished children (addendum)
www.coregroup.org/working_groups/PD_Hearth_Addendum_Aug_2005.pdf

Care Groups

World Relief and Core (2005). *The Care Group Difference: A guide to mobilizing community-based volunteer health educators*. www.coregroup.org/diffusion/Care_Manual.pdf

Community-Based Management of Acute Malnutrition (CMAM)

Food and Nutrition Technical Assistance Project. 2008. *Training Guide for Community-Based Management of Acute Malnutrition (CMAM)*. www.fanta-2.org

Support Groups

Linkages (2003). *Mother-to-Mother Support Group Methodology and Infant Feeding: Training of Trainers* www.linkagesproject.org/publications/index.php?detail=51

The Grandmother Project <http://www.grandmotherproject.org/>

BEHAVIOR CHANGE

Child Survival and Health Grants Program (2005). *Behavior Change Interventions Technical Reference Materials*. www.childsurvival.com/documents/trms/xcut.cfm

Core and AED. *Applying the BEHAVE Framework. Workshop Guide*.
www.coregroup.org/working%5Fgroups/behave_guide.cfm

The Core Group. Social and Behavior Change Working Group.
www.coregroup.org/working%5Fgroups/behavior.cfm

Emory University; Nutrition Research Institute, Peru; National Institute of Public Health, Mexico; PAHO (2003). *ProPAN: Process for the Promotion of Child Feeding*.
www.paho.org/English/AD/FCH/NU/ProPAN-index.htm

FORMATIVE RESEARCH

Dicken, K. and M. Griffiths. *Designing by Dialogue: A Program Planners' Guide to Consultative Research for Improving Young Child Feeding*.
www.eldis.org/go/display/?id=27958&type=Document

Food for the Hungry International. *How to Conduct Barrier Analysis*.
http://barrieranalysis.fhi.net/how_to/how_to_conduct_barrier_analysis.htm

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