





#### **U.S. Government Document**

The Feed the Future (FTF) Multi-Year Strategies outline the five-year strategic planning for the U.S. Government's global hunger and food security initiative. These documents represent coordinated, whole-of-government approaches to address food security that align in support of partner country priorities. The strategies reflect analysis and strategic choices made at the time of writing and while interagency teams have formally approved these documents, they may be modified as appropriate.

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# **TABLE OF CONTENTS**

TA	BL	E OF CONTENTS	2
ΑВ	BR	EVIATIONS AND ACRONYMS	3
ı.	IN	NTRODUCTION	5
2.	D	EVELOPMENT CHALLENGES AND OPPORTUNITIES	5
2 2	.1 .2 .3 .4	DEVELOPMENT CHALLENGES	7 9 11
		TRATEGY OBJECTIVES, PROGRAM STRUCTURE AND IMPLEMENTATION	
	. I .2	PROGRAM STRUCTURE AND IMPLEMENTATION	
4.	C	ORE INVESTMENT AREAS	. 16
4 4	.1 4. .2 .3 .4	CORE INVESTMENT AREA I: INCREASED AGRICULTURE PRODUCTIVITY AND MARKET LINKAGES  I. I Secondary Priorities Under Core Investment Area I	21 23 24
5.	M	10NITORING AND EVALUATION	. 26
_	. I .2	Performance Monitoring  Impact Evaluations	
6.	FI	INANCIAL PLANNING	. 28
7.	M	ANAGEMENT	. 30
8.	A	NNEXES	. 31
A	NN	iex A. Results Framework iex B. Completed and Ongoing/or Planned Assessments and Studies iex C. Feed the Future Draft Indicators	32

### ABBREVIATIONS AND ACRONYMS

AgCLIR Agricultural Commercial Legal and Institutional Reform

AGS Accelerated Growth Strategy

APHIS Animal and Plant Health Inspection Service

**CAADP** Comprehensive African Agriculture Development Program

**CDSMT** Cadre des Dépenses Sectorielle à Moyen terme

**CFSVA** Comprehensive Food Security and Vulnerability Analysis

**CNCR** Conseil National de Concertation Ruraux

**CORAF** Conference of African and French leaders of agricultural research institutes

**COSFAM** Committee for Food Fortification

**DA** Development Assistance

**DAPS** Ministry of Agriculture Division of Strategic Planning and Monitoring

DCA Development Credit Authority
DHS Demographic Health Survey
U.S. Department of Defense

**DSRP** Document de Stratégie de Réduction de la Pauvreté

**EGO** USAID's Economic Growth Office

**ECOWAS** Economic Community of West African States

**ENA** Essential Nutrition Action

**FAO** Food and Agriculture Organization

**FAS** Foreign Agriculture Service

FIAS Foreign Investment Advisory Service

**FFP** Food for Peace

FSL Foreign Service Limited

GAM Global Acute Malnutrition

GFSR Global Food Security Response

**GOANA** Grand Offensive for Food and Abundance

**GOS** Government of Senegal

ICRISAT International Crops Research Institute for the Semi-Arid Tropics

IR Intermediate Result

ISRA Institut Scientifique des Recherches Agricoles
JICA Japan International Cooperation Agency
LOASP Loi d'Orientation Agro- Sylvo- Pastorale

MCC Millennium Challenge Account
MCC Millennium Challenge Corporation
MDG Millennium Development Goal

NAPA National Adaptation Program of Action

NEP Nutrition Enhancement Program
NGO Non-governmental organizations
OFDA Office of Foreign Disaster Assistance
PMP Performance Management Plan

**PNASA** Programme National d'Appui à la Sécurité Alimentaire

**PPP** Public Private Partnership

PRSP Poverty Reduction Strategy Paper

**ReSAKSS** Regional Strategic Analysis and Knowledge Support System

**REVA** Plan de Retour Vers L'Agriculture

**SCA** Stratégie de Croissance Accélérée (Accelerated Growth Strategy)

**SFZ** Southern Forest Zone

**SMART** Standardized Monitoring and Assessment of Relief and Transitions

Small and Medium Enterprises **SME** 

SRV

Senegal River Valley
United States Department of Agriculture
United States Direct Hire USDA

**USDH** 

USG U.S. Government World Food Program WFP

### I. INTRODUCTION

"Hunger robs the poor of a healthy and productive life and stunts the mental and physical development of the next generation. Undernutrition costs developing countries up to 3 percent of their annual gross domestic product and places individuals at risk of losing more than 10 percent of their lifetime earning potential. Reducing chronic hunger is essential to building a foundation for development investments in health, education, and economic growth." -The Global Commitment to Feed the Future

USAID/Senegal, with the help of both internal and external partners and in response to USAID/Washington guidelines, revisited the Mission's FY 2010 Global Hunger and Food Security Initiative Plan in order to leverage strengths and successes into a whole-of-U.S. Government five-year Feed the Future Strategy. The strategy is tied closely to the Government of Senegal's Country Investment Plan (CIP), and assessed USAID/Senegal's unique comparative advantage vis-à-vis other donors and institutions. The Feed the Future Strategy, reflecting Senegal's whole-of-U.S. Government (USG) response to food security, poverty and nutrition challenges, was presented in Washington D.C. during October 2010.

# 2. DEVELOPMENT CHALLENGES AND OPPORTUNITIES

#### 2.1 DEVELOPMENT CHALLENGES

Feed the Future priorities are solidly grounded on Millennium Development Goal (MDG) I and in line with the international consensus that poverty is not only measured by income levels, but also by nutritional status.

Many analyses of Senegal's food security, nutrition, and economic development challenges and opportunities were, and continue to be, discussed in consultation with in-house and external specialists and development partners. USAID/Senegal will lead the USG focus on the following five areas in concert with the Government of Senegal (GOS) and donor partners in order to increase incomes and improve nutritional status:

- I. Agriculture driven economic growth productivity increases through a value chain approach and promotion of sound land management
- 2. Household behaviors that promote optimal nutrition
- 3. Enhanced policy implementation
- 4. Strengthened rural infrastructure and access to finance
- 5. Increased human resource capacity, both at health facilities and every level of the agricultural sector including associated institutions

Many of Senegal's challenges arose in the absence of a long-term vision for agricultural development, which resulted in a lack of infrastructure, limited operational strategy and implementation, longstanding under-investment, and limited political will to undertake policy reform or improve the operating environment. However, the Government of Senegal's growing investment in agriculture (of over 10 percent per year) opened the door for progress in the food economy. Moreover, Senegal's final CIP, the coordination of which is housed in the Office of the Prime Minister, further emphasizes the desire to elevate agriculture as the primary driver for economic growth. The CIP focuses heavily on increasing the production of rice, maize, and millet as well as preserving fishery resources. Preliminary estimates

suggest that the number of potential direct beneficiaries in these areas of intervention is approximately 1,800,000 persons. According to Senegal's CIP, Gross Domestic Product (GDP) value added in agriculture will grow annually on average by 7.2 percent. Further, the GOS believes that agriculture's contributing share to GDP will increase from 16.4 percent in 2010 to 20.3 percent in 2015 and to 21.5 percent by 2020, while the poverty ratio in rural areas will be reduced from 49.3 percent in 2010 to 36 percent in 2015 and to 26.6 percent by 2020. Donor support, including activities under Feed the Future (FTF), will be critical in order to achieve these objectives.

Understanding the Senegalese nutritional status is essential to the design of this FTF strategy. Only ten years ago Senegal had some of the lowest undernutrition rates in West Africa. Senegal is now characterized by moderate, chronic undernutrition, wherein the "hidden hunger" of protein and micronutrient deficiencies feature prominently. Anemia prevalence is over 70 percent among children under five and over 60 percent among women. Despite significantly improving the nutrition status of its population, undernutrition persists as an underlying factor in Senegal's high under-five and maternal mortality rates¹; 31 percent of all child deaths before age five are related to undernutrition and moderate malnutrition is implicated in 84 percent of these deaths because of its extensive prevalence (26 percent versus 5 percent).² Unlike wasted children that are visibly severely and acutely undernourished, moderately undernourished children often languish in a weakened state; becoming highly susceptible to common childhood illness such as malaria, diarrhea, and respiratory infections. The majority of undernourished children fall into this category. Seventeen percent of children under-five are under-weight and 16 percent stunted³, requiring a preventative rather than a treatment approach⁴.

In terms of nutrition investments, the USG has the advantage of being one of the largest and most consistent donors in the health sector; particularly in community level health care and prevention activities. This approach is known for achieving more sustainable change by enabling people to take charge of their health. USAID/Senegal currently supports a nationwide network of over 2,300 "health huts" and outreach sites. These community-based and managed health structures are at the most decentralized level of health service delivery and offer a comprehensive package of services to populations without easy access to health centers and health posts. USAID/Senegal is well-placed to foster synergy by marrying this network of health huts with agricultural activities in two geographic areas, the Senegal River Valley (SRV) and the Southern Forest Zone (SFZ). The SRV and SFZ not only hold the highest agricultural potential, but according to WFP data include the regions experiencing the highest undernutrition and poverty rates in the country.

In the current poverty reduction strategy, the GOS outlines the objectives of its nutrition policy, which includes intensifying key community-based interventions such as the integrated management of childhood illnesses; promoting the fortification of cooking oil, flour, and salt; and conducting bi-annual vitamin A supplementation and de-worming campaigns. Building on the success of the World Bank funded Nutrition Enhancement Program (Phase I, 2000-2005), the GOS also identifies the nation-wide expansion of this program as a priority.

The reasons for these high rates of persistent undernutrition include three key elements. First, sound infant and young child feeding practices are not practiced consistently. Only 35 percent of children under the age of six months are exclusively breastfed. Additionally, 41 percent of infants between 6-9

6

<sup>&</sup>lt;sup>1</sup> Under-five mortality rate 85/1000 live births per the 2009 Malaria Indicators Survey; 401/100,000 live births per the 2005 DHS.

<sup>&</sup>lt;sup>2</sup> Africa Nutrition Chart books: Nutrition of Young Children And Mothers In Senegal. Findings from the 2005 Senegal Demographic and Health Survey, ORC Macro, November 2006.

<sup>&</sup>lt;sup>3</sup> Reanalyzed figures updated in 2010 indicate 14.2percent underweight and 19.6percent stunted.

<sup>&</sup>lt;sup>4</sup>Reanalyzed figures updated in 2010 indicate 14.2 percent underweight and 19.6 percent stunted.

months are not fed according to recommended complementary feeding practices. Second, in the arena of hygiene practices, although 98 percent of Senegalese have relatively high access to potable water and 77 percent have access to sanitation facilities, more than one-fifth or 22 percent of all Senegalese children suffer from diarrhea. Third, 58 percent of the Senegalese diet consists mainly of cereals such as millet, sorghum, and particularly rice, which does not provide dietary diversity. Vegetables and protein sources are low in Senegal. Fish, the main protein source, accounts for 47 percent, of protein consumed. Although this household food basket is complemented by groundnuts and cowpeas, cereals represent approximately two-thirds of the dietary energy supply. Fourth, populations are also subject to a "hungry season" between the time that the last of the previous year's food stocks run out and the harvest of the following year. Compounding this, there is often a corresponding lack of income during this period right before the new crops go to the market. The availability of a balanced diet is compromised as the variety and quantity of food is limited, for example, more expensive items like meat are eliminated and the number of meals is reduced.

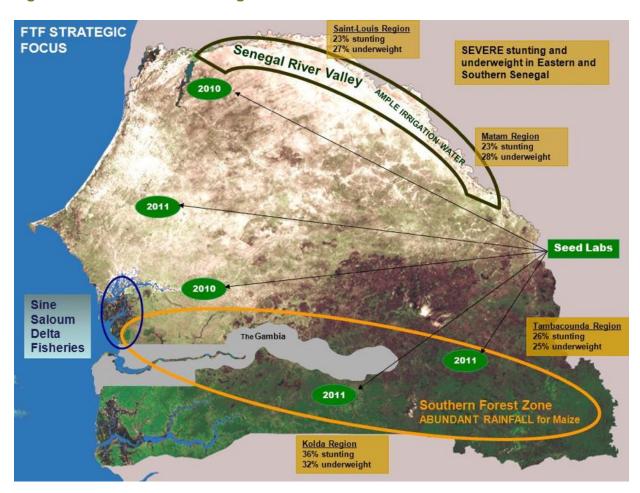
These challenges require a strong emphasis on improving nutrition, hygiene, and health seeking behaviors as well as improving access to and quality of health care and nutrition services. Promotion of a more diverse food basket at the community level rather than the clinical level will also address the aforementioned challenges. The strategy will seek to implement a holistic, yet targeted approach; including complementary activities in nutrition and agriculture that boost the larger investments in value chains.

#### 2.2 OPPORTUNITIES

The U.S. Government leverages expertise in valuable areas vis-à-vis other donors and institutions including application of the value chain approach. This is a method for which the USG holds a comparative advantage among development partners. For the purposes of FTF, three staple grain value chains (rice, maize, and millet) were selected for their associated high growth potential, scalability, and potential to leverage other USG, GOS, and development partner investments. In addition, USAID will work in Senegal's sizable fisheries sector, a source of high economic and nutritional contribution, yet a diminishing resource. Clearly, other GOS-prioritized sectors are important to the overall agricultural economy, however these Senegalese staples greatly influence daily diets in the poorest regions, hold the greatest potential for reducing undernutrition and poverty, and offer geographic focus to increase the impact of the USG's overall development investments in two agro-ecological zones: the Senegal River Valley (SRV) and the Southern Forest Zone (SFZ). In the SRV and the SFZ, combined USG and donor investments will create corridors of agricultural productivity and improve the private sector business environment, facilitating "agricultural growth corridors." These two focus zones touch on parts of nine administrative regions representing 42.6 percent of Senegal's population and include the five poorest regions: Fatick, Kedougou, Kolda, Matam, and Tambacounda. However, since value chain development is used to satisfy urban market demand, the FTF impact will be broader than these targeted areas and beneficiaries. In fact, the coastal and western regions (Dakar, Kaolack, Touba, Thies, and Saint-Louis) are the most important markets for cereals.

USAID will build on past investments in natural resources management to ensure increases in productivity and greater resilience to climatic variability in the agricultural growth corridors in SRV and SFZ. Augmenting this geographic focus are the Essential Nutrition Actions (ENA) program which will be promoted nationwide through Senegal's health hut network, seed lab development, and the related capacity building associated with each.

Figure 1. Feed the Future Strategic Focus Areas



Senegal River Valley	Southern Forest Zone
Source of 97 percent of Senegal's irrigated rice	Source of 65 percent of maize
Under-utilized land and water resources	Potential breadbasket
Proven demand and productivity potential	Investment zone with high "multiplier"
Supports gender, environment, & CIP goals	value
Seed Labs including Millet	Sine Saloum Delta Fisheries
Productivity Driver	70 percent of dietary animal protein
Civil society/private sector link	Resource management
Serves many Senegalese commodities	Policy reform

USAID/Senegal plans to undertake detailed cost benefit and gender disaggregated beneficiary socio-economic impact analyses of FTF activities in order to illustrate actual impact on income and nutritional status as a result of USG support. The economic analysis will assess the overall contribution of the FTF strategy to the country's GDP growth and will capture the income effects from positive externalities and demand multipliers.

The USG does not have a comparative advantage in several of the sectors selected by the GOS in the CIP. The Mission did not select peanuts, livestock and dairy. Although Senegal will continue to produce peanuts as an important crop and beneficial nitrogen fixing rotation to grains, the peanut oil market is declining, and loses in the soybean, sunflower, and rape seed oil markets are not expected to rebound.

The livestock sector plays a key role in economic development and poverty alleviation. However, it is composed of a plethora of value chains (e.g., large livestock, small ruminants, poultry, dairy, hides and skins) and USAID/Senegal is not in a position to pick one value chain within the sector. Strategically, USG's selection of maize as a focus value chain will contribute to the animal feed sector by reducing production costs and increasing the competitiveness of value chains like dairy and poultry, and contribute to the modernization of the broader livestock sector. Investing in dairy directly is not feasible for two reasons. First, the EU continues to heavily subsidize dry milk which is cheap in Senegal and thus discourages private industry investment in local milk production. Second, local production is constrained by a number of factors requiring long-term investment including a lack of cold storage and energy infrastructure required for handling fragile fresh milk products.

It is important to note that the USG's expertise and historic success in seed technology and research are welcomed by the GOS. USAID/Senegal is strategically investing in five soon-to-be fully functional and scaled up seed certification labs in order to address food insecurity, productivity, and climate change concerns. Improved germ plasm, by itself, cannot produce sustained increases in productivity and achieve optimal resiliency against climatic variability, however. Research will be supported on land management systems that have a track record in increasing productivity and reducing susceptibility to climatic shocks.

Finally, USAID/Senegal intends to improve natural resource management within the two targeted agroecological zones because poverty, food insecurity, and the environment are inextricably linked. Income from sustainably managed eco-systems can act as a stepping stone in the economic empowerment of the poor, but these systems will be tested as the impacts of climate change manifest and resources become increasingly scarce. FTF investments are described in detail in Section 3.

#### 2.3 CROSS-CUTTING ISSUES

Gender considerations drive work to improve nutrition status. First, 18 percent of women and 12 percent of mothers are undernourished. Undernutrition at any stage in a woman's life, including during childhood, can jeopardize her ability to carry, deliver, or care for her child. FTF strategy interventions will address this challenge by specifically targeting maternal nutrition in addition to infant and young child nutrition. Nutrition activities will employ a gendered approach in order to incorporate men in community nutrition activities. For example, men often control how income is spent, but are rarely involved in child care. Therefore, outreach is also targeted to male heads of households.

Women are heavily involved in the agriculture sector at all levels from work in the field to post-harvest processing and marketing. According to USAID/Senegal's 2010 Gender Assessment, women's opportunities to participate in economic life are limited, thus more effort must be devoted toward integrating women into agricultural development plans. For example, women are often overlooked during the distribution of new technologies and sometimes lack control of family businesses. This FTF strategy scales up capacity building in female-owned business management, institutions and organizations led by and benefitting women. Senegal's FTF value chain approach will combat constraints that prevent increases in investments where female entrepreneurs invest heavily, contributing to a long-term perspective that is socio-economically sustainable. Gender goals will be achieved through improved access to finance and improved capacity of women in the areas of processing and commercialization, the areas where the lion's share of value are gained. For example, a planned Development Credit Authority (DCA) with the woman's savings and credit mutual Mutuelle d'épargne et de Crédit (MEC) de la Fédération des Groupements et Associations de Femmes Productrices de la Région de Saint Louis (FEPRODES), will enable some part of the 346 groups to create and scale up rice processing and commercialization enterprises. Associations such as this have the potential to become a major force in the expansion of the rice sector in SRV.

In the maize value chain and in the secondary focus millet and fisheries sub-sectors, the strategy also concentrates on processing and commercialization where woman-led activities are most important. A DCA mechanism is available to support credit access and will be complemented by small grants to develop marketing strategies and market access.

Although the law on decentralization entitled women to inherit land in Senegal in 1996, many are unable to benefit from this legislation due to long-standing customary practices. Without ownership of land, women are often unable to provide collateral for loans. Land tenure is a complicated and controversial issue few leaders are willing to address, especially during this pre-presidential election period. Due to the implications of such reforms on women's roles in agriculture and business ownership, the USG has and will continue to engage the GOS at diplomatic as well as policy levels to further the dialogue on land tenure. USAID is currently reopening dialogue in preparation for steps to be taken during 2011 and the coming years.

Environmental sustainability and productivity gains are proven partners in USAID/Senegal's approach. In fact, intensive production of rice in the SRV has the important benefit of preserving environmental resources in this era of increasing population, competition for land and water resources, and potential food insecurity. In the delta fisheries, USAID/Senegal has proven a model that catalyzes food-system led economic growth while focusing on environmentally sustainable productivity gains through a fisheries management plan that is purpose-driven and economically feasible, and that operates in close coordination with extension, training, and local governance. The approach integrates social science and natural science research to increase impacts for food economy participants.

The recurring incidence of extreme weather, such as irregular rainfall or potential drought increases both farming business and food security risks. Specialists continue to investigate the potential negative consequences of climate change on agriculture, such as water availability, flooding, increase in invasive species and coastal erosion. Climate change is approached through two aspects: adaptation and mitigation. Fortunately, advances have been made in helping West African dry land farmers adapt to climatic variability. These include water-harvesting technologies across a number of agro-ecological zones that enabled farmers to trap most of the rainfall and allow infiltration into the soil and significantly reduce run-off. Research has identified soil management practices that increase the efficiencies of fertilizer, and there is new evidence that mixed agro-forestry systems in these semi-arid zones simultaneously increase crop yields and diversify household economies providing a hedge during drought years. In Senegal, the GOS has established a program on water harvesting technologies including retention basins.

Climate change adaptation is a core aspect of Senegal's FTF strategy. Seed development systems are designed and implemented appropriately for Senegal's agro-ecological zones and rainfall gradient. This involves research through ISRA (Institut Scientifique des Recherches Agricoles), Africarice and ICRISAT (International Crops Research Institute for the Semi-Arid Tropics) as well as numerous private seeds producers and public sector control services. Breeder foundation seed research focuses on varieties adapted to drought and hydric stress. Five seed labs are in various stages of implementation. They are located in the north (Senegal River Valley) for irrigated rice and maize, in the northern Peanut Basin (Diourbel), in the south peanut basin (Kaolack), in the East (Tambacounda) and in the southern forest zone (Kolda).

Productivity and production improvements are sought through water management technologies including: anti-salinization infrastructure (dikes), improved fertilization practices and techniques (conservation farming and mixed agro-forestry systems), and integrated pest management.

Collaborative research on climate adaptation technologies will improve the FTF Strategy's four FTF value chains. USAID/Senegal's Agriculture Research and Education project contains a grant mechanism to fund such applied research and technology transfer. USAID/Senegal collaborates with USAID/West Africa through support to CORAF (Conference of African and French leaders of agricultural research institutes) and its Regional Excellency Research Center on adaption to drought (CERAAS) located near Dakar at Thies.

Looking into the near-term future, governments across the globe are already committed to taking actions to mitigate and adapt to climate change by reducing greenhouse gas emissions and preparing for adverse effects. In fact, Senegal's 2006 National Adaptation Program of Action (NAPA) provides a process to identify priority activities that respond to their urgent and immediate needs to adapt to climate change. Greater climatic variability will likely be characterized by changes in the timing (later beginning), intensity (fewer and more intensive events) and temporal distribution of rainfall events (longer periods between events). USAID/Senegal receives climate change adaption funds that will be used to jointly fund a coastal resource/fisheries management program.

Donors are organized to leverage work under the CIP. The USG chairs the Private Sector Donor Coordination Group and the Agriculture Donor Coordination Group and will therefore continue to play a key role in guiding Senegal's agriculture sector development. The USG and other donors will continue to help the GOS coordinate all donor activities in line with the Paris Declaration. In support of that effort, all donor-supported agriculture work will be aligned to the CIP and be implemented with GOS buy-in and leadership. The CIP is coordinated by a steering committee chaired by the office of the Prime Minister.

#### 2.4 LEVERAGING REGIONAL SYNERGIES

Looking forward to leveraging regional synergies, Senegal is surrounded by several countries facing similar environments conducive to comparable socio-economic challenges. As West Africa strives to generate economic growth and reduce poverty, investors face the challenge of formulating agricultural development strategies for a diverse West Africa region. The region's current population of 290 million is projected by the Organization for Economic Cooperation and Development (OECD) to reach 430 million within the next 15 years, and to reach 60 percent urbanization by 2020. If population expansion is not accompanied by improved agricultural productivity and structural transformation, markedly greater challenges to achieve economic growth, food security, and minimal nutrition standards should be expected.<sup>5</sup> To address these issues, the USG strategy for FTF targets the SRV bordered by Mauritania, and the SFZ encircling the Gambia River including the Casamance region bordering Guinea Bissau.

Substantial informal regional trade indicates under-tapped potential for regional collaboration. Rice, maize, and processed millet are all reported in short supply throughout the region because production and productivity are not enough to meet the existing demand. USAID/West Africa (WA) also recognizes the regional demand for maize and the importance of regional trade. Clearly, USAID/Senegal and USAID/WA will continue to look for regional integration links and use the synergy of FTF to promote greater impact over the life of this strategy. In addition, a principal goal of the strategy is to leverage regional research, teaching institutions, and other technical and science-based resources. Public-private partnerships are planned to increase with the FTF emphasis. With current and planned regional focus, USAID/Senegal intends to become a model of collaboration and region-led innovation.

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<sup>&</sup>lt;sup>5</sup> Paraphrased from several sources authored by Luther Tweeten, well known development and food security economist.

Now more than ever, Senegal is positioned to sustain gains in food security and nutrition. The GOS has contributed at least 10 percent of its GDP per year over the last five years to the development of the agriculture sector mostly in the form of input and loan subsidies, services, infrastructure and equipment. The planned phasing out of GOS subsidies paves the way for increased private sector investment. In nutrition, the GOS currently implements a national Nutrition Enhancement Program, funded by the World Bank, which covers 50 percent of the country. With USG assistance, the program will cover the entire country.

Certain risks to the FTF strategy implementation are recognized and will be monitored. The first two years of Senegal's CIP implementation and the FTF strategy launch coincide with the build-up to Senegal's 2012 presidential election which could lead to delay in key reforms. The USG, GOS, and donor partners must also watch and adjust for potential global financial shocks that could reduce donor contribution to the CIP implementation. Due to Senegal's proximity to the Sahara desert and global climate change risks, tracking of climatic risks is ongoing. However, the Mission's investments in the extension of tested land-use management practices, the diversification of the household economy and improved germ plasm will, together, help dry-land farmers become less susceptible to climatic shocks. The receding forest estate in southern Senegal due to agriculture encroachment also poses a risk for traditional livelihoods and will be closely monitored and mitigated through the FTF strategy. In spite of the risks associated with contentious elections, political stability is expected to continue. USAID/Senegal's democracy and good governance program will undertake actions to minimize all of these risks. Perhaps most importantly, overall political will is expected to continue as the agricultural law is implemented and land tenure reform remains a donor target.

# 3. STRATEGY OBJECTIVES, PROGRAM STRUCTURE AND IMPLEMENTATION

#### Feed the Future Objective

The USAID/Senegal Mission has developed the following Objective Statement in alignment with the overarching goal of the Feed the Future Initiative: to sustainably reduce poverty and hunger, to improve equitable growth in the agricultural sector, and to improve nutritional status of the Senegalese people. The USG FTF strategy is based on the development hypothesis that poverty and hunger can be sustainably reduced through transforming the national agriculture sector and nutritional status of the Senegalese population, especially women and children, through focused and scaled investment priorities. The Results Framework in Annex A provides an overview of the Mission's entire Economic Growth (EG) strategy, demonstrating how the FTF strategy intends to reach its objectives as well as how the non-agriculture specific efforts are complementary to achieving our larger Development Objective of increased, inclusive economic growth.

The FTF strategy Objective Statement shares the FTF Goal at the country level to "Sustainably reduce poverty and hunger" and the Key Objectives to "Improve equitable growth in the agricultural sector" and to "Improve nutritional status." In addition to the required higher-level indicators under the Feed the Future framework, USAID/Senegal has identified relevant components of its existing portfolio to meet the overall objectives of the FTF initiative. For example, trade expansion is a critical strategy for accelerating poverty-reducing growth since it encourages efficiency, the benefits of which are passed to consumers in the form of increased market access and more affordable goods. The Mission currently conducts several activities that build the capacity of local producers, improve the conditions for success within value chains, and make improvements in both infrastructure and trade policy to boost overall trade within Senegal and the sub-region. The USAID/Wula Nafaa program, for example, built the capacity of rural villages and local governments to develop land-use plans that set the rules for how

natural resources were managed. Developing these plans allowed communities to establish a process that sustainably increased incomes from local resources. Improved economic governance is also an essential factor to economic growth, thus USAID/Senegal conducts activities that encourage free operation of the private sector, more efficient regulation in the agriculture sector, improved service delivery in the health sector, transparent and decentralized governance, reduced corruption and formal management of natural resources.

Unplanned agriculture growth can also threaten environmental resources and services and local management and planning for growth is essential for sustainability. Current programs in the Mission's portfolio promote sustainable land and water use, use of forest and biodiversity resources, and adaptation to climate change. USAID/Senegal, is currently undertaking a Climate Change Vulnerability Assessment of coastal communities. To address soil, water, and climate issues within FTF, the Mission will conduct a Climate Change Vulnerability Assessment on FTF activities that will target the specific selected value chains and areas of geographic focus. This will identify interventions needed to protect FTF investments by building resilience to climate change. Additionally, the Mission will incorporate robust soil/water conservation and management practices to increase fertilizer use efficiency, rainwater capture/management, rainfall infiltration, and resilience to drought. Special attention will be paid to water management in areas proposed for increased irrigation. Along with the necessary environmental impact assessments, the assessments of irrigation projects will consider the social structures and capacity needed to manage and maintain irrigation systems.

Given limited resources and the USG desire to tighten programmatic focus to maximize impact, as well as taking into consideration the development and investment efforts of other donors and the private sector, the Mission began an analysis early during implementation in order to track and project the effect of our proposed socio-economic investments. This analysis has and will continue to inform investment prioritization to achieve transformational change and set performance targets over the next five years.

#### 3.1 PROGRAM STRUCTURE AND IMPLEMENTATION

The USG has developed a robust and comprehensive program structure to implement the FTF initiative. Since the advent of the 2008/2009 Global Food Security Response to Senegal, the Mission has structured economic growth programs to align with USG's goals in this arena. Because of the inherent linkages between agriculture, poverty and nutrition, focus area investments simultaneously address multiple intermediate results (IRs) under the FTF strategy goal. Lead indicators for these IRs consist of both FTF standard required and customized indicators and are found in Annex B. The selected indicators also directly respond to priorities outlined by the GOS in the CIP. Intervention activities under the plan will support the GOS investment priorities for increasing the agriculture sector's productivity, enhancing market opportunities and improving the nutritional status of the Senegalese population. To demonstrate the coherence between the FTF strategy and the GOS CIP, the following table illustrates the alignment of the FTF indicators to the 15 indicators the GOS will monitor and evaluate over the next 10 years:

Table I. Government of Senegal Country Investment Plan (CIP) Indicators

Government of Senegal CIP Indicators	FTF Indicators or Related Interventions
National poverty level	Χ
Percentage of vulnerable population or rural communities living in food insecurity	X
The rate of annual GDP growth attributable to agriculture disaggregated by crops, livestock, fisheries and forestry	X
External balance of agricultural trade in percentage of GDP	X
Increase in production levels and yields	Χ
Number of producer associations and extension agents trained	X
Share of agricultural processing by domestic agri-businesses	Х
Number of hectares irrigated	
Increase in percentage of irrigated land amongst total land cultivated	
Number of kilometers of feeder roads or other infrastructure constructed or rehabilitated	Х
Decrease in government subsidies to the agricultural sector	
Level of national food need coverage	Χ
The level of coverage of national food needs in cereals, milk, and meat	X
Level and value of increased milk and meat production	
Increase in animal numbers, grazing density, and carcass yield	

#### 3.2 SENEGAL'S APPROACH TO COORDINATION

The FTF will figure prominently in USAID/Senegal's Country Development Cooperation Strategy (CDCS), an effort that is Whole-of-Government. In November 2010, USAID/Senegal hosted a Country Team retreat to create three development objectives for the CDCS as well as potential goal statements. In early 2011, the CDCS Results Framework will be developed and it will include the FTF Results Framework. USG engagement and collaboration within the FTF context include, but are not limited to, the following:

- U.S. Department of State: The US Embassy in Senegal plays a critical role in coordinating all USG activities within the framework of the Economic Coordination Group. As the FTF Coordinator in Senegal, the USAID Mission Director works closely with the Ambassador and her staff to provide a unified USG approach, as well as to ensure there is buy-in and constructive public diplomacy dialogue with the stakeholders, the media and the government. Senegal's USG Economic Coordination Group, created in 2006 and chaired by the U.S. Ambassador, continues to be the main forum for coordinating across USG departments and agencies. Though not captured as part of the USG's foreign assistance work, the State Department also addresses sensitive policy areas such as corruption, land tenure and the conflict in the Casamance through a series of exchanges and advocacy with policy makers and stakeholders as well as activities such as exchange programs and sponsored speaker and training program in-country.
- Millennium Challenge Corporation,: MCC is making large, multi-year investments in the Senegal
  River Valley (SRV) to increase rice production by opening 10,500 hectares of new irrigated land
  and rehabilitating another 26,000 hectares. MCC will build 376 kilometers of national road
  network in the SRV and Southern Forest Zone (SFZ). Given the importance of SRV rice to
  addressing Senegal's food security challenges, and the high potential of the SFZ, these
  investments provide USAID/Senegal with a unique opportunity to focus its investments to
  leverage the MCC effort.

- U.S. Department of Agriculture (USDA): USDA provides technical assistance and training that result in improved market access by creating sound border regulations and developing improved domestic, regional and international trade in staple food, livestock, poultry and fishery products via numerous forums, including the Cochran and Borlaug programs. USDA also provides agricultural commodities for monetization and contributes to nutrition enhancement programming. USDA's contributions to Senegal's FTF currently are in the areas of agricultural and market information systems, monitoring and evaluation, and training. Through a separate mechanism, USG/Senegal and the region benefit from direct USDA/Washington, D.C. agreements, in specific Participating Agency Service Agreements with USDA, to provide specialized expertise for FTF planning and implementation.
- Peace Corps: The Peace Corps provides rural technical assistance and expertise, as well as informal monitoring and evaluation. Volunteers currently work in private sector, agriculture and natural resource management, teaching, and health and nutrition, and can be further linked into the value chain programs via small project grants in such areas as training and technical assistance. Volunteers also act as observers measuring the impact of the policy reform efforts. Peace Corps recently assigned a liaison to USAID/Senegal's agriculture programming. This relationship helps the USG reach the micro producers and processors that might otherwise be difficult to reach and will help spread project resources more efficiently.
- Other USAID programs: There are multiple synergies between the FTF program and
  USAID/Senegal's other programs in economic growth (EG), education (ED), democracy and
  governance (DG), and health. USAID/EG programs will complement FTF by broadly supporting
  Senegal's business and competitiveness environment which is critical if the FTF initiative is to
  achieve truly sustainable results. Agricultural biodiversity is proven to play a critical role to
  maintain and improve food security, and enhance resilience to climate change, pests, diseases,
  nutritional deficiencies and other threats. Specifically, USAID biodiversity programs will support
  the local management of Senegal's southern forests, in part by helping communities harvest
  forest products sustainably yet profitably.

Child survival and health, nutrition, malaria, maternal and child health, HIV/AIDS and tuberculosis funds will leverage FTF value chain extension and improve the access to, and quality of a comprehensive package of health services through work at the policy, clinical, and community levels. Agriculture value chain activities mesh well with nutrition objectives to take advantage of geographical concentration and optimize resource use.

USAID Democracy and Governance experts and programs will provide support to FTF and the other sectors for improving transparency, accountability, and governance at both the national and local levels as well as providing support in Senegal for fiscal decentralization. These efforts are expected to improve the degree to which public resources contribute to poverty reduction, increase funding available to local governments to implement their responsibilities, and improve the extent to which citizen participation in government is increased. It will also strengthen decentralized service delivery in the education, health and natural resources management sectors.

USAID/Senegal will also support institutions of higher education through universities and research centers engaged in agricultural training. This effort will provide a sustainable basis to develop the human and institutional capacity for continuous innovation and improvement in Senegalese agriculture in both the public and private sectors and is expected to support positive improvements in farming systems, agri-businesses, community efforts, value chain productivity, and production system sustainability.

The Department of Commerce is playing an important role as well in promoting the export of used and new agricultural U.S. equipment and technologies. The Foreign Commercial Section works to strengthen the American Chamber of Commerce's role in advocating for a better business and investment environment and helps match U.S. and Senegalese agricultural firms. The Department of Defense (DOD), through its Africa Partnership Station, promotes maritime domain awareness through the protection of fisheries. The DOD through the Vermont National Guard State Partnership Program also targets increased commercial and technical ties with Vermont companies and universities, especially in the fields of agriculture and energy. Both Departments' focus enhances USAID's priority agriculture and poverty reduction goals.

#### CORE INVESTMENT AREAS

The donor community has agreed to align programming around the government's CIP and will use it as the focal point for donor coordination. In order to ensure successful implementation, the government is working closely with donors, the private sector, civil society and ECOWAS to address outstanding CIP challenges. USAID is leading key donor groups, thus using the knowledge and feedback of this network. USAID/Senegal carefully researched and identified five core areas, or IRs, to sustainably reduce poverty and hunger, improve equitable growth in the agricultural sector, and improve the nutritional status of the Senegalese people.

The core investment areas are outlined in the following sections. Through these investments, over the next five years:

- An estimated 445,000 vulnerable Senegalese women, children, and family members mostly smallholder farmers will receive targeted assistance to escape hunger and poverty.
- Approximately 188,000 children will be reached with services to improve their nutrition and prevent stunting and child mortality.
- Significant numbers of additional rural populations will achieve improved income and nutritional status from strategic policy and institutional reforms.

# 4.1 CORE INVESTMENT AREA 1: INCREASED AGRICULTURE PRODUCTIVITY AND MARKET LINKAGES

There will be increased agriculture productivity and market linkages through a focus on rice and maize value chains. Millet and fisheries will be addressed as a secondary priority as they are also closely related to food security. Other donors take the lead in these sectors; however USAID has a critically important role to assume. The focus could conceivably change over time as objectives are achieved and they sustainably contribute to the Senegalese economy. Farmer beneficiaries adapt quickly to changing market conditions through sound business decision-making and, thus, lead our own decisions for future investments. USAID/Senegal will closely monitor the socio-economic impact of activities and the adoption of land-use management systems. On a yearly basis the Mission will assess and decide if the interventions in the chosen value chains maximize benefits for private sector entrepreneurs.

Rice represents 54 percent of the total cereal consumed in urban Senegal and 34 percent of cereal consumed in rural Senegal (UCAD/ISE, 20036; Baris, 20097). Senegal is one of the largest consumers of

16

<sup>&</sup>lt;sup>6</sup> Evaluation integree des impacts de la liberalization du commerce dur la filiere riz au Senegal.

rice in West Africa and has achieved irrigated rice yields in the SRV well above that of other countries in the region. However, irrigable land is under-utilized due to lack of investment. During the past five years the world market in rice has undergone many structural changes. For example, a recent imported rice study (USAID/PCE, 20108) found: I) an increase in Southern American market share; 2) a decreased share for Asian countries; and 3) a new supply from Egypt.

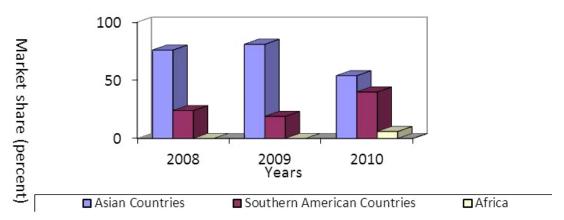


Figure 2. Market Share for Rice Imports by Origin from 2008 to 2010

The FTF strategy supports the GOS response to 2008 prices, as written in both the Grande Offensive Agricole pour la Nourriture et l'Abondance (GOANA) and the PNAR (Plan National d'Autosuffisance en Riz). The CIP continues this trend targeting rice.

AfricaRice research<sup>9</sup> shows that rice competiveness is related to non-price characteristics and that investment in post-harvest quality tailored to consumer demand is the first step which needs to be undertaken in the reversal of urban bias toward Asian rice<sup>10</sup>. This research indicates urban consumers are willing to pay price premiums averaging 45 f cfa/kg for quality SRV rice, relative to imported rice. In a market snapshot, the retailer's price margin was 10 f cfa/kg for SRV rice compared to 2 f cfa for imported rice. Senegal is one of the top ranking countries for rice yield and there has been substantial investment in the sector over the last 30 years. Currently, quality is the key driver for changing productivity in the rice value chain. As a result of past capacity development activities, some Senegalese processors with modern equipment are able to produce quality rice by improving drying time and grinding. Some of this rice is indistinguishable from imported. Ultimately, as the SRV increases capacity, a high-quality local product will be targeted.

Therefore, the USG uses an approach focusing on traders, millers and producers linked with formal contractual arrangements as the driver to quality improvement. The strategy focuses on increasing capacity of the seed development system, research and production of breeder foundation seeds with ISRA and AfricaRice, and certification services for commercial seeds. Further, the strategy supports rice production consolidators' networks to reduce transaction costs and increase quality. Small scale and

<sup>&</sup>lt;sup>7</sup> Etude sur la competitivite du riz de la vallee du fleuve Senegal sur les marches nationaux et regionaux.

<sup>&</sup>lt;sup>8</sup> USAID/PCE (2010). Rapport sur l'etude de la distribution du riz importe au Senegal.

<sup>&</sup>lt;sup>9</sup> Demont M, Rutsaert P., Ndour M. and Verbeke W. (2010). Reversing Urban Bias in End-Markets: Competitiveness of Senegal River Valley Rice.

<sup>&</sup>lt;sup>10</sup> Matty Demont and Amy C. Rizzotto (2010) Policy Sequencing and the Development of Rice Value Chains in Senegal

industrial mills receive support in improving quality management capacities, such as training in quality control practices, storage systems, local milling cluster development, contractual and production monitoring, investment negotiations and working capital access. Market information systems under way help reduce asymmetric quality and supply stocks information and develop marketing strategies to increase the visibility along with SRVs increased capacity to supply quality SRV rice.

A Policy Analysis Matrix prepared by the Institute Senegalais de Recherches Agricoles\_(ISRA) for the Food and Agriculture Organization (FAO) and AfricaRice in 2009 indicated that irrigated rice in the River Valley is competitive and economically profitable with low domestic resource costs (DRC) ranging from 0.34 to 0.57. Substantiating these findings, USAID/Senegal's rice value chain study found that clean local rice sells at a premium near the production area. A small amount of Senegalese rice is reaching the urban markets of Dakar where 50 percent of the study sample knew that Senegal produces rice, however, less knew where to purchase it. MCC is investing heavily in the SRV to expand road and irrigated rice paddy rehabilitation and development. The World Bank, other donors and private sector are investing heavily in the production side of the irrigated rice sector. In complement, USAID/Senegal will increase access to seed, and carry out critical post-harvest infrastructure development activities and capacity building through to the end market. The GOS plans rice production to increase by almost 50 percent from 391,000 MT in 2009 to 600,000 MT by 2015 through the combined efforts of government, donors, and private sector.

Women play a key role in the rice value chain. Mentioned earlier in this strategy, Mutuelle d'épargne et de Crédit de la Fédération des Groupements et Associations de Femmes Productrices de la Région de Saint Louis (MEC FEPRODES), is a women's organization that brings together thousands of women so that they can gain better access to credit, technologies and trade opportunities. USAID/Senegal rice sector productivity interventions target this and other similar groups.

USG's FTF interventions will be critical in aiding significant numbers of rural populations through the following:

- Irrigated and rain fed land developed and rehabilitated by the USG, the GOS, and other donors will become more efficient from input to market, through the value chain approach;
- Incorporate best practices for soil management technologies to increase fertilizer and rainwateruse efficiencies:
- Incorporate tree-based systems and water-harvesting technologies into farming systems as a means to increase resiliency to shocks and to increase productivity;
- Access to credit for smallholders and Small and Medium-sized Enterprises (SME) through two Development Credit Authority (DCA) programs and improved quality of financial information;
- 184 kilometers of feeder roads to leverage MCC investments (in SRV and SFZ);
- Improved number and quality of milling, processing and other post-harvest processes from field to market;
- Capacity building and training, from innovations in the lab to final consumer;
- Development and implementation of a seed system and rice quality standards including substantial staff training; and

Increase public awareness and demand of Senegalese rice and other local grains.

Maize productivity in the SFZ is expected to satisfy consumption needs and spear value-added agricultural processing in the livestock feed sector and industrial fortified flours, culinary, and enriched supplementary food sectors amongst others<sup>11</sup>. Demand is large and growing since the 90s in part due to growth in the poultry feed sector wherein maize constitutes 60 percent of the ration. In 2010 the value of maize imports reached about \$24 million. Because local maize is preferred by consumers, the wholesalers use a strategy of price alignment between the imported and local maize. In this context, the imported maize is not more competitive than local maize, but is used as a price-equal complement to fill substantial demand when local maize is not available.

Currently, 100 percent of maize used by the poultry and livestock feed industry is imported by three main companies: *Nouvelles Minoteries Africaines* (NMA), Sentenac, and *Grands Moulins de Dakar* (GMD). The national culinary seasoning powder market is 96,000 MT, 24,000 MT of which are distributed through four companies: Jumbo, Maggi, Doli and Tem Tem. The cereal<sup>12</sup> market potential is 91,000 MT for maize flour fortified with cow peas (niebe) and peanut butter. Current maize production is not enough to fully supply any of these industries. The Policy Analysis Matrix prepared for AfricaRice and the Institut Senegalais de Recherches Agricoles (ISRA) in 2007 found maize to be a competitive and economically profitable staple grain with DRCs of 0.25 in the SRV and 0.64 in SFZ.

In southern and eastern Senegal maize is one of the most important cereals consumed by the population and a crop of substantial importance in the Tambacounda, Kedougou, and Kolda regions where food insecurity is higher<sup>13</sup>. Consistent with regional work toward improved child nutrition and food security, these private sector investments are increasingly important as sources of both high quality commercial post weaning dietary supplements and emergency feeding resources to the GOS and other regional governments mitigating lean season shortages and climatic or political vulnerabilities of the region.

USAID will focus heavily on post-harvest systems in the SFZ where Senegal's relatively less humid climate and longer season is an advantage, supply chain networks, and contract consolidation between the producers and the various industry sub-sectors. Also, access to inputs including seed and fertilizer, credit, capacity building, and developed quality standards are USG's essential contributions to the long-term development of this multi-use product value chain. USAID/Senegal's SFZ work will increase production by 40 percent from 350,000 metric tons in 2009 to 500,000 metric tons by 2015. In the SRV irrigated maize production areas, the focus will be on commercialization, i.e., contracting and product consolidation, the critical bottleneck<sup>14</sup>. Interventions will reach over through the following targeted investments:

- GOS Seed certification lab and associated private sector seed system capacity buildup;
- Soil management research and outreach that will help farmers make informed choices about how to most effectively use improved seeds and fertilizers;
- Improved fertilizer-use efficiency and production through training, demonstrations and conservation farming technology activities;

USAID/PCE 2009, Rapport de l'Etude sur la structure des marches et facteurs de competitivite du mais importe

<sup>&</sup>lt;sup>12</sup> Explicitly targeting children 6-49 months

<sup>&</sup>lt;sup>13</sup> 2009/2010, Analyse Globale de la Vulnerabilite, de la Security Alimentaire et de la Nutrition - Senegal

<sup>&</sup>lt;sup>14</sup> Youssoupha Gueye et Seydou Kane (2010), Rapport d'Etude sur la commercialization, les couts de production et la formation du revenue du mais irrigue.

- Incorporate best practices for soil management technologies to increase fertilizer and rainwater-use efficiencies:
- Incorporate tree-based systems and water-harvesting technologies into farming systems as a means to increase resiliency to shocks and to increase productivity;
- Increase GOS capacity to target subsidies and transition to private sector input distribution;
- Organizational management training and partnership development;
- Agriculture DCA guarantee programs to increase SME access to loans;
- Development and implementation of maize quality standards;
- Value chain capacity building and training, from lab to final consumer; and
- Social marketing, and market research and development.

#### 4.1.1 Secondary Priorities Under Core Investment Area I

Millet, critical to food security, is the most cultivated food produced in Senegal; 810,200 metric tons were produced in 2009. Current production is mostly self-consumed and does not meet current market demand at the processor or final consumer levels. Therefore, although many small processors (mostly women) produce high-quality products using artisanal techniques, they lack sufficient farm-gate raw millet to take advantage of the strong demand. Urban dwellers and the diaspora both want this pre-processed millet. As high-yield (and high viability) certified seed becomes available, additional households will benefit from increased food security and increased woman-owned micro-processing opportunities. For a relatively small investment in seed certification labs alone, hectares planted in high-yielding certified seed and provided with appropriate land management treatments are expected to realize a two-fold increase in yield. Importantly, seed labs will build capacity to respond not only to market demand, but to climate change adapted varieties and potentially help buffer the broadest population from food insecurity brought on by climatic irregularities.

As processors build capacity, project personnel knowledgeable of the value chain are ready to assure processors link to waiting markets. Dakar's high rate of urbanization has caused an increased need for fast and convenient foods, thus the demand for processed millet is not expected to decrease in the foreseeable future. If sufficient millet quantities above household food security and processing capacity become available, it will be feasible to supply major cereal processors and distributors (e.g., Jaboot, La Vivriere, etc.). IFAD and others supported by USAID/Senegal are presently involved in the millet value chain. In order to target the people of Senegal that are the most food security vulnerable and women processors, USAID/Senegal will contribute to increased production by 2015 through the following interventions:

- Seed certification laboratories built, equipped, staffed and launched;
- Improved access to inputs through policy and distribution activities;
- Improved infrastructure to facilitate producer organizations' post-harvest access; and

Increased capacity of processers to link with markets and satisfy demand.

Fisheries, as a primary source of animal protein and critical to food security, produce one of Senegal's top exports, employing, either directly or indirectly, 600,000 people or 11 percent of total labor force. Significant from both an economic and nutritional standpoint, the fishing sector produces 300,000 metric tons of high quality protein annually. The sector provides Senegalese households with 47 percent of total protein, or 70 percent of animal protein needs. In addition, fishing in Senegal is often the last social safety net because if crops fail or access to land is lost, farmers oftentimes turn to fishing for food and income. Proper resource management of fisheries is vital to sustaining an important supply of food and wealth for Senegal's people.

Many of Senegal's fisheries are at or about to reach full exploitation levels. Some may have already exceeded maximum sustained yields. This creates a dangerous situation wherein access to the fishery remains open, particularly in the artisanal sector, and continues to increase without control. If uncontrolled fishing continues Senegal's coastal fish stocks will be degraded. If the marine ecosystems on which they depend become increasingly degraded from pollution, destructive fishing methods, and the effects of climate change, local stocks will decrease even more. Poaching by foreign fishing boats is also decreasing fish stocks.

In 2004, a government-led fisheries assessment resulted in important policy decisions now embodied in the Fisheries and Aquaculture Sector Policy Letter of 2008 or Lettre de Politique Sectorielle (LPS). The LPS seeks to enhance the consistency of government interventions, projects and programs on the basis of clearly defined and prioritized objectives. It aims to bring together all initiatives by the government, development partners and donors around a consensual reference document. Strategic priorities should reduce excess capacity and empower fishers. Development strategies in the LPS include:

- Control and manage maritime fishing capacities to meet the allowable catch potentials;
- Control access to fishery resources;
- Introduce fisheries development plans;
- Promote a policy of conservation of marine habitat and fishery resources via integrated management of coastal areas;
- Enhance and adapt fisheries research;
- Optimize fisheries monitoring, control and surveillance resources; and
- Reduce post-catch losses.

Meaningful transformation of the sector will result in sustaining an important supply of nutrition and jobs for Senegal's people. USAID/Senegal's work is complemented by the World Bank, the EU, Japan and other major investors in fisheries.

# 4.2 CORE INVESTMENT AREA 2: BRING TO NATIONAL SCALE ESSENTIAL NUTRITION ACTIONS (ENA) AND INTEGRATE NUTRITION INTO THE AGRICULTURE VALUE CHAIN APPROACH

Agriculture and nutrition programs have a common goal of food security and target rural communities. USAID/Senegal will accelerate the rate of reduction in undernutrition by focusing on key, high-impact nutrition interventions carried out in conjunction with income generation activities. FTF presents the long-awaited opportunity to use a combined agriculture and nutrition approach to poverty reduction. Outreach will expand across the full network of two value chains in the SRV and SFZ. Project resources, rural training activities, and cross-trained teams will help enable the population, especially women and children, and to improve and maintain household nutrition assuring the possibility of productive futures.

Activities under the FTF strategy that will have the greatest impact on nutritional status and incomes begin with a consolidation of investments in the country-owned health hut network<sup>15</sup> and brings to scale current nutrition-related interventions at the policy, clinical, and especially the community levels to bolster access to and quality of health care and nutrition services. The approach will center on broadening the coverage of Essential Nutrition Actions, key household level behaviors that have the most impact on women's and children's nutritional status and improving dietary diversity. To enable these actions, the strategy will integrate nutrition activities into the value chain approach, thereby strengthening the logical link between increased food production, increased incomes, and increased consumption of quality and nutritious foods, particularly by women and children. The agriculture and nutrition integrated approach to outreach deepens access to rural families, including head of household men who often make spending decisions. The inclusion of men in community nutrition activities is critical to adoption of the ENAs, both deciding how to spend household income and the behavior choices of families.

For nutrition interventions to truly have an impact, changes must be adopted during the I,000-day "window of opportunity," during pregnancy and through a child's second year of life. After this period, corrective actions are considered to be "too little, too late" – the damage is irreparable. Therefore, USAID/Senegal will scale up delivery of ENA; a comprehensive set of actions targeting this I,000-day window for improving the nutritional status of pregnant and lactating women, and children under five.

At the community level, USAID will leverage the existing network of over 1600 health huts and capitalize on the work of agriculture outreach and Peace Corps Volunteers to expand the GOS Nutrition Enhancement Program to parts of the country not currently covered, a large portion of which is in the SRV and SFZ where FTF targets the most vulnerable populations. At the clinical level, USAID will reinforce the referral linkages between clinical and community services to ensure an effective continuum of care for identifying and treating under-nourished children. The roads and outreach infrastructure of FTF's value chain approach provide implementation tendrils into the poorest and hardest to reach rural areas where the health hut network is already embedded. Through the beneficial combination of agriculture and nutrition, mothers and caregivers will be equipped to adopt these essential actions necessary to ensure adequate nutrition and improve dietary diversity. New ways of leveraging strategy activities exist when nutrition and food systems are linked. For example, investments in the maize value chain will help the commercial sector create maize-based products such as cereals for children older than six months. Additionally, through the increased, secure production of millet, activities will support the fortification of flour through artisanal and commercial means and associated income generating activities will be explored with women's cooperatives and micro or small enterprises. Senegal is an exporter of salt, and therefore holds the technical knowledge to ensure appropriate

<sup>&</sup>lt;sup>15</sup> The 1970s health hut model responded to the Declaration of Alma Ata on primary health care. Originally, these structures were used as places for women to deliver babies safely with the aid of trained traditional birth attendants. In the early 1980s, USAID began to support the structures to provide a comprehensive package of maternal and child health care services. Health huts has become synonymous with comprehensive community health care in Senegal.

iodization. USAID/Senegal will investigate the barriers associated with the use of properly iodized salt and work with the private sector to remedy the challenge.

Education and awareness improvements realized by both community health workers and agricultural extension workers will reinforce the importance of using increased incomes to diversify the household food basket. This might be through direct purchases of proteins and vegetables or through investments in home gardens or small ruminants. This can also diminish the negative effects of lean seasons. Several of the ENA are supported through clinical services (i.e., anemia prevention, care of sick children). Community health workers and agricultural extension workers will reinforce the importance of using increased incomes to access these services or to buy health related products like insecticide-treated bed nets.

The "multiplier effects" of integrated agriculture and nutrition activities are widespread. These potential "effects" include the following:

- 1. Improved road access to medical services;
- 2. Improved circulation in and out of remote agricultural areas by all service providers;
- 3. Nutrition training provided to agriculture extension personnel, and food-system training provided to nutrition advisors (knowledge that is transferred beyond the project into the households and villages of the advisors); and
- 4. Field-trips and training activities planned jointly strategically allocate time and resources of both target communities and USAID/Senegal personnel.

#### 4.3 CORE INVESTMENT AREA 3: ENHANCED POLICY ENVIRONMENT

Enhanced policy environment addresses key constraints with the broadest impact on agriculture and nutrition. The focus is on three main themes: 1) policy reforms will enhance the business environment, specifically full implementation of the agricultural law of 2004 and continued discussions on land tenure; 2) development and testing of new policies and management structures for the fisheries sector, and 3) Support the GOS in the implementation of CIP indicator that focuses on a decrease in civil sector subsidies in the agricultural sector.

USG/Senegal's policy actions under Feed the Future include the following:

- Move towards decentralized, market-based agriculture through a time-phased implementation plan.
- Leverage development funding toward land policy reform and convene a high-level forum to begin building political consensus around the issue of land reform (legal as well as institutional).
- Reform subsidies to more accurately target low income producers and avoid distortion of production decisions.

Improve regional cross-border trade by reducing the number of controls on Dakar-Bamako trade transport corridor, and promoting a fluid border crossing for trade.

- In conjunction with ECOWAS and the West Africa Trade Hub, promote reduction of regional barriers to trade, including implementation of SPS protocols, regional seed catalogues, removal of certificate of origin requirements and associated duties, and removal of export bans.
- Promote agriculture sector access to financial services by encouraging stakeholder led reform in order to instill confidence in investors.
- Support the development of a community health policy.
- Formalize food fortification policy framework and regulations.
- Continue to strengthen policies that convey the authority over harvesting of local timber and marketing of charcoal from the central to decentralized governments.

Policy coordination and monitoring and evaluation will help to establish evidence-driven decision making processes for policies and FTF programs. To ensure the FTF investments achieve the desired impact the USG will support the multi-sector CIP coordination unit in the Prime Minister's office, which will supervise policy reform and monitoring and evaluation activities.

# 4.4 CORE INVESTMENT AREA 4: IMPROVED RURAL INFRASTRUCTURE AND ACCESS TO FINANCE

Improved rural infrastructure and access to finance to ensure long-term agricultural productivity. USAID/Senegal will provide the entrepreneurship training and technical assistance to help investors succeed, develop loan mechanisms through DCA, and achieve the GOS goal to enable agriculture driven economic growth.

USAID/Senegal will help the GOS seek efficiencies in security and border customs inspections along transport corridors as a manner to open the flow of commerce and lower transportation costs. This effort's primary emphasis will be on the Dakar/Bamako corridor and other sub-regional corridors linking Senegal to Guinea Bissau and the Gambia.

USAID/Senegal intends to fill identified rural infrastructure gaps for which the USG is uniquely capable. MCC's investment in roads will open the principal transportation arteries into each of USAID's target zones of work. USAID will then develop feeder roads to increase the transportation flow for the production, processing, and marketing of rice and maize. (See the GOS priorities in Section 2, and associated budget in Section 5) Due to the geographic focus on two corridors, the impact of combined USG, GOS, and private sector investment efforts are expected to reach well beyond the returns normally achieved with stand-alone investments. The side benefits of the three-pronged value chain, infrastructure, and policy approach should spur the establishment of private sector services and other complementary entities along the geographic corridors. Investments will focus on the following:

- Improve environment of post-harvest operations; and
- Increase access to nutrition counseling and care facilities;
- Further develop DCA loan guarantees with institutional support and development of financial services, and a warehouse receipt system; and

 Build and rehabilitate feeder roads connecting agriculture production to MCC's primary road investments and markets.

# 4.5 CORE INVESTMENT AREA 5: INCREASED INSTITUTIONAL AND HUMAN RESOURCE CAPACITIES

Increased institutional and human resource capacities will ensure access to and development of next-generation agriculture technologies in Senegal. This component will lay a foundation for growth and includes facilitating access to finance, training in business management, developing efficiencies in production and processing, professionalization of cooperatives or producer organizations, and assisting businesses both to use and advocate improved policy. In addition, this component will build the capacity of local governments in the SRV and SFZ in land use planning, economic governance and natural resource management. This will include a focus on water management, maintenance of irrigated systems, watershed management and rehabilitation. Specifically, USAID/Senegal will invest in strengthening science and technology capacity in select universities in order to assure that Senegal has a cadre of scientists and technicians into the future.

As the two geographical belts of focus, SRV and SFZ, build efficiency and attract investments, the local capacity should replace centralized control over local resources and economic investments. USAID/Senegal will identify and support resolution of evolving local economic and resource governance capacity constraints. As part of the larger Mission cross-cutting goal for improved governance, USAID/Senegal will address core efficiency issues in the SRV and SFZ. In partnership with stakeholders, USAID/Senegal will address substantial management capacity issues will be addressed as needs and opportunity permit such as land tenure, land use planning, provision of environmental services, and advanced training.

Based upon findings of agricultural business environment research, the private sector is constrained from investment when they cannot obtain access to land. In response, USAID/Senegal will facilitate the capacity building for and the establishment of a one-stop shop<sup>16</sup> in close partnership between central government and rural communities to reduce the number of steps, length of time, and other constraints to land access.

Capacity building as an underlying element cuts across USAID/Senegal's target geography and every level of Senegal's agricultural economy. Therefore, USAID/Senegal plans to measure the direct and indirect satellite and parallel effects of work, across gender and age. Strategic activities include the following:

- 1. Increase capacity in higher education agriculture and research;
- 2. Strengthen human resource capacity across public and private sectors;
- 3. Use a business incubator approach to encourage entrepreneurship and basic management capacities;
- 4. Through multiple channels including agriculture extension and GOS health personnel provide appropriate ENA messages, nutrition-related care and counseling to communities;
- 5. Strengthen the supervisory and referral linkages between health facilities and communities for improved management of care for under-nourished children;
- 6. Embed a value chain approach in national agriculture training and extension work;

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<sup>&</sup>lt;sup>16</sup> All land access procedures are available in a centralized one-stop facilitation office

- 7. Train industry members from selected institutions and businesses;
- 8. Develop professional capacity of key agro-food support institutions;
- 9. Promote the use of science-based agriculture by strengthening linkages between extension, higher education and training, applied research and private sector.
- 10. Train specialists and technicians focused on applied research; and
- Increased local government capacity in land use planning, watershed management and management.

USAID/Senegal intends to lead the USG effort to strengthen institutions and programs of selected agricultural education and training institutions, some of which have nutrition included in their curricula. The capacity to view the food economy through a value chain lens will be emphasized at every activity level. Focus will be on the value chains supported by FTF to the extent possible. Notable institutions include: University of Thies National College of Higher Agricultural Education (ENSA); University Gaston Berger in Saint-Louis: B.S. in Agricultural Sciences, Aquaculture and Food Technology; University Cheikh Anta Diop (UCAD). There are also five rural agricultural training centers including the Technical School of Saint-Louis, the Centre National d'Horticulture de Camberene in Dakar, the technical agricultural and forestry schools in Ziguinchor, the agricultural school of Bignona, and the Higher Institute of Agricultural and Rural Training (ISFAR) of Bambey.

### MONITORING AND EVALUATION

As elaborated upon in Section 2, USAID/Senegal has developed a modified FTF Results Framework that incorporates relevant components of its existing portfolio. The four first-level objectives include: inclusive agricultural sector growth, increased trade, improved nutritional status (especially of women and children), and improved management of natural resources. This section provides an explanation of the Mission's approach to monitoring performance and evaluating impact under the FTF initiative. For performance monitoring, the Mission will collect data for standard and custom indicators to track whether desired results are occurring and whether performance is on target. Data collected through monitoring will be used for periodic reports to stakeholders. For impact evaluation, the Mission will study the characteristics and results of programs to test development hypotheses and examine how and to what extent program objectives have been met. The Mission takes a participatory approach to ensure ownership and sustainability of the national data collection system, which strengthens the integrity being utilized for development initiatives beyond FTF.

#### 5.1 PERFORMANCE MONITORING

The table in Annex B lists all the indicators that USAID/Senegal selected to measure results achieved. The progress will be tracked against the baseline values and targets set. The table also includes the data collection methods and schedule. Overall, the utilized methods include sampling, review of records, reports, attendance sheets, data compilation and calculation. The implementing partners are primarily responsible for collecting implementation-related data on an annual basis and submitting them to USAID through periodic activity reports. USAID/Senegal has conducted or is in the process of conducting several studies from which information can be drawn upon to establish and inform baseline data. Completed USAID-driven studies include the Senegal Gender Assessment (2009), Rice Value Chain Study (2009), Senegal Competitiveness Report (2010), and the Agricultural Commercial Legal and Institutional Reform (AgCLIR) Action Plan (2010) and the subsequent GOS Reform Plan. In addition, USAID/Senegal utilizes secondary data sources to gather information as often as possible.

To ensure that high quality statistical data is utilized, external studies, such as the Demographic and Health Survey (2010), will also provide baseline data for some indicators, especially nutrition indicators. Senegal has also been selected as the first country in Africa to launch the continuous DHS survey, meaning that from 2011 onwards, annual data will be available for selected indicators. When deemed appropriate, data being collected will be disaggregated to specify targeted groups such as gender, rural/urban, or ultra-poor. USAID/Senegal conducts Data Quality Assessments (DQAs) every three years to increase awareness of the strengths and weaknesses of the data being collected. Several DQAs were conducted in 2010 for FTF-related projects, which further ensures high quality of data being collected for FTF monitoring and evaluation.

Coordination with host country stakeholders is a crucial component of our M&E strategy. ECOWAS has an M&E system called ReSAKSS (Regional Strategic Analysis and Knowledge Support System) that countries are required to use. ReSAKSS is coordinated by *Direction de l'Analyse, de la Prevision et des Statistiques* (DAPS) and supported by USAID/Senegal. The FTF Strategy Guidance issued in September 2010 requires more vigorous data collection efforts that require the involvement of multiple stakeholders, including other USG agencies, donors, implementers, targeted GOS offices, and local non-governmental organizations. This participatory approach lays the foundation for increased efficiency and ownership. In order to maximize efficiency amongst data collecting donors and the GOS, it is critical to involve stakeholders early on in order to successfully engage all parties and to share responsibilities for monitoring and information gathering activities.

Such a participatory approach is crucial with regard to the higher level indicators which primarily originate from secondary sources and are not collectable on an annual basis due to complexity and cost considerations. In this respect, USAID will work closely with the relevant government offices at all levels to institutionalize data collection, processing, analysis and reporting. This will ensure timely availability of data to track performance and inform decision making processes.

USAID is committed to strengthening and building capacity within the National Statistics Office (ANSD) and the Agricultural Statistics Office (DASP). In addition, as part of the DHS continuous survey, ANSD will have staff dedicated to those data measurements. USAID regularly contributes to survey budgets and provides the relevant technical assistance to ensure timely availability of secondary data meeting quality standards such as validity, reliability, timeliness, precision and integrity. For example, the USAID/Senegal Health office secured funds with the United States Census Bureau to provide technical assistance to ANSD for the execution of Senegal's 2011 census. The USAID/Senegal FTF program contributes to ANSD's 2011 census budget. USAID/Senegal supports ANSD's 5th update to the Demographic and Health Surveys. Data is due in early 2011 for all of the major health indices. With USAID-funded technical assistance, the ANSD implements this internationally respected, multi-million dollar national survey - the basis of all health related decision-making for the next five years.

The 2011 census will combine the population census with relevant aspects of the agriculture and livestock survey. The population census will provide the sampling frame for the agriculture and livestock survey and eventually this will eliminate the need for USAID to conduct a pilot agriculture and livestock survey.

#### 5.2 IMPACT EVALUATIONS

A robust monitoring & evaluation system must include impact evaluation to quantify how individual beneficiaries, households and communities have been affected by the FTF initiative and associated programs. USAID/Senegal will test the development hypothesis that increased agricultural productivity, improved rural infrastructure and access to finance, scaled-up Essential Nutrition Actions, enhanced

policy environment, and increased institutional and human resource capacities will lead to a sustainable overall reduction of poverty and hunger.

USAID/Senegal is committed to conduct impact evaluations on all programs over \$20 million over the life of the program and will measure for impact three to five years after the completion. The highest-level objectives under the FTF framework will be analyzed using the standard indicators presented therein. Under the Senegal FTF initiative, four programs will undergo the requisite impact evaluation: the Agriculture-Nutrition program, the Capacity Building for Agriculture Education and Research Project (CBAER), Wula Nafaa, and the Economic Growth Project (PCE). When necessary, USAID/Senegal will create a terms of reference or utilize existing central mechanisms in order to complete the impact evaluation. As discussed above, the Mission is committed to building capacity within the host government and host-country stakeholders to ensure quality data at the impact evaluation level.

## 6. FINANCIAL PLANNING

Table 2 below illustrates that the private sector contribution is fairly significant at about 10 percent, primarily within agriculture. The plan estimates sector-specific funding by source over a five-year period beginning in 2011. After central and local government contributions have been estimated, there remains a gap. This remaining gap of about \$1.3 billion (rate of exchange for illustrative purposes 500 FCFA = \$1.00) is expected to be filled by donors and the private sector. Further commitments and new pledges for the CIP and associated Social and Economic Policy Document (DEPS<sup>17</sup>) will be announced during the Donor Consultative Group.

Table 2. Country Investment Plan -Financial Plan Agriculture Sector 2011-2015

Subsector	GAP	Local Govt.	Central GOS	NGO	Other Donors	Private Sector	TOTAL 5-years
Agriculture	655.9	205.1	746.2	N/A	N/A	255.3	1,862.4
Livestock	281.5	N/A	13.2	N/A	N/A	N/A	294.7
Fisheries	86.2	0.8	28.3	0.1	0.6	10.4	126.2
Environment	206.3	0.6	74.5	N/A	8.2	N/A	289.6
Rural Infrastructure	69.3	N/A	0.2	N/A	N/A	N/A	69.5
Coordination and M&E	33.6	N/A	0.2	N/A	N/A	N/A	33.8
Added Value of Raw Products	12.0	N/A	4.0	N/A	N/A	N/A	16.0
TOTALS	1,344.6	206.4	866.6	0.1	8.8	265.7	2,692.1

The GOS aims to begin implementation of their Social and Economic Policy Document, including the CIP component, in calendar year 2011. However, the DEPS document needs to be validated and is already delayed until the first quarter of 2011. The World Bank prepares the document for six to eight months after validation before the Donor Consultative Group can meet to discuss the GOS budget gaps, find additional funds, and pledge new commitments. (Only after completion of the DEPS - PRSP-III equivalent - do donors pledge new commitments.) Based on this timing, new commitments will be made in late 2011 at the earliest. In addition, Senegal's presidential elections will take place in early 2012.

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<sup>&</sup>lt;sup>17</sup> The Social and Economic Policy Document (DEPS) is equivalent to PRSP-III

Given recent history, it is unlikely the Donor Consultative Group would make any new pledges before the 2012 elections. At the end of 2005 Senegal designed their PRSP II for investment years 2006 – 2010. However, the presidential election was scheduled for February of 2007, over one year later. In this instance, it was not until the post-election cabinet was put into place and after the parliamentary elections were held in May 2007 that donors convened the Donor Consultative Group in October 2007 to announce strategic adjustments of commitments in progress and new pledges for the PRSP strategy period. It is conceivable that the Donor Consultative Group, therefore, could convene as late as October 2012 to address commitment gaps and confirm and count new pledges.

Half of the gap is covered by already committed funds as illustrated in the current three-year rolling plan, Table 3 below. Currently, the GOS has sufficient funds from locally financed capital expenditures and donors to carry the CIP from 2011 to 2013. The level of *political will* to support the agriculture sector will be tested during 2011 as capital expenditures are drawn upon.

The GOS Ministry of Finance prepares a three-year rolling investment plan. The most recent was developed in June-July 2010 for the years 2011-2013. The following information was extracted from the comprehensive Ministry of Finance plan submitted and approved by the Parliament in 2010. This table suggests that the donors would mobilize \$387.4 million dollars, which is half of the gap mentioned in the CIP plan.

Table 3. Government of Senegal Rolling Investment Plan, 2011-2013

GOS	Beneficiaries	USG*	Other Donors	TOTAL 3-years
152.8	5.9	208.6	133.4	500.7
32.I	N/A	N/A	17.3	49.4
35.3	N/A	8.4	82.7	126.4
18.5	N/A	N/A	68.6	87.0
1.6	N/A	N/A	N/A	1.6
73.7	15.2	N/A	68.4	157.3
313.9	21.0	217.0	370.4	922.3
	152.8 32.1 35.3 18.5 1.6 73.7	152.8 5.9 32.1 N/A 35.3 N/A 18.5 N/A 1.6 N/A 73.7 15.2	152.8 5.9 208.6 32.1 N/A N/A 35.3 N/A 8.4 18.5 N/A N/A 1.6 N/A N/A 73.7 15.2 N/A	Donors   152.8   5.9   208.6   133.4

<sup>\*</sup> Figures are based on I) the Assistance Agreement, and 2) the MCC Compact, both signed between the GOS and the USG.

The three-year plan in Table 3 is based on funding commitments, and excludes the private sector. The funding priorities of donors are overwhelmingly focused on the agriculture sector. The USG, based on 2010 commitments, represents about 24 percent of total sector contributions over the next three years; with a 42 percent share of agriculture sector contributions over the same period. This is in line with the USG aspiration to assume leadership of related donor groups.

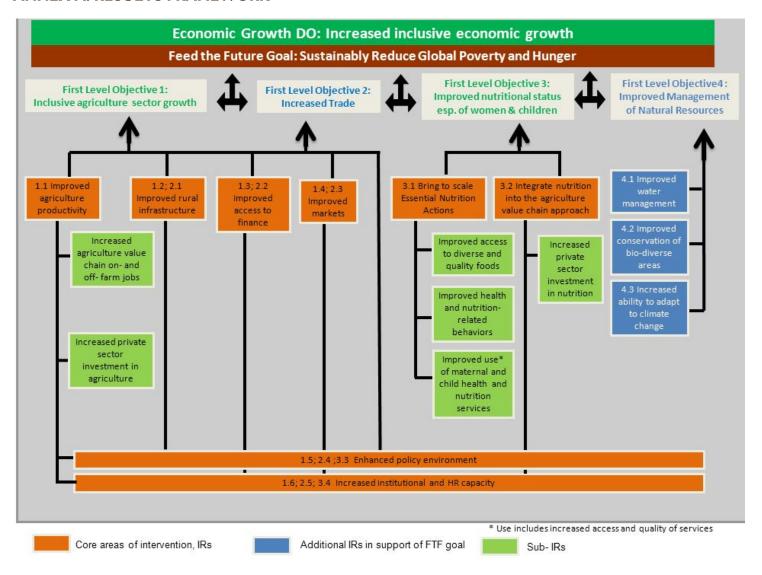
USAID/Senegal is also leading the other donors by planning for agriculture related investments through 2015. Although all ongoing donors' investments are coordinated around the final CIP at current commitment levels, new pledges that will be directly tied to the CIP will be announced iteratively. Some donors will invest during 2011 to design activities that best target the CIP.

# 7. MANAGEMENT

The USG Mission in Senegal will complete its transition to the FTF strategy during 2011. The whole of government effort is described in Section 3.2. The Economic Coordination Group, chaired by the U.S. Ambassador, will continue to be the main forum for coordinating across USG departments and agencies.

# 8. ANNEXES

#### **ANNEX A. RESULTS FRAMEWORK**



# ANNEX B. COMPLETED AND ONGOING/OR PLANNED ASSESSMENTS AND STUDIES

USAID/Senegal has supported and will continue to support the following national-level assessments which contribute directly to the successful implementation of Feed the Future:

### Completed Analyses

Gender Assessment

Women in Agriculture Assessment

Competitiveness Report

Local Organization Operation Environment Report

Rice Value Chain Study

Maize Value Chain Study

Millet Value Chain Study

AgCLIR Action Plan and associated reform action plan

US/Brazil funded bio-fuel commercial viability study

Biodiversity and Tropical Forests Assessment

#### Ongoing or Planned

World Food Program Vulnerability Mapping

Poverty Profile

PRSP III

Demographic and Health Survey

Other USG Studies, e.g., Land Use Mapping

GOS Agriculture Census

Agriculture Sector Capacity Assessment

Ministry of Agriculture Institutional Capacity Assessment

Maize & millet product line study

Domestic Cost Resources (DCR), value chain competitiveness

Cost-Benefit Analysis to define policy choices in fertilizer subsidies and distribution

Socio-economic Analysis to define the impact of FTF activities

Climate Change Vulnerability Assessment on FTF activities

### ANNEX C. FEED THE FUTURE DRAFT INDICATORS

Indicator Statement*		Baselines		Targets					
Indicator Statement*	Year	Value	2011	2012	2013	2014	2015	Method	Period -icity
GOAL: Global Poverty and Hunger Sustainably Reduce	ced	•		·	·				
Prevalence of Rural Poverty: Percent of people living on less than \$1.25/day	2005	61.5%	TBD	TBD	TBD	TBD	TBD	Survey	2-5 years
Prevalence of underweight children under five	2005	17%	15.6%	14.2%	12.8%	11.4%	10%	Survey	Yearly
Objective I: Inclusive Agricultural Sector Growth	1	1	<u>'</u>	1	•	-1	<b>'</b>	1	<u>,                                      </u>
Percent growth in agricultural GDP	2010	4.5	3.8	3.9	4.0	4.2	5.0	Review	Yearly
Expenditures of rural households (avail Dec 2011)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Survey	2 yrs
Gender perceptions index	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Survey	2 yrs
Objective 2: Increased Trade							<u> </u>		
Value of millet in local markets	2009	TBD	TBD	TBD	TBD	TBD	TBD	Survey	Yearly
Value of maize in local markets	2009	TBD	TBD	TBD	TBD	TBD	TBD	Survey	Yearly
Value of rice in local markets	2009	TBD	TBD	TBD	TBD	TBD	TBD	Survey	Yearly
Number of USAID-supported training events on topics related to investment capacity building and improving trade	2010	794	TBD	TBD	TBD	TBD	TBD	Survey	Yearly
Objective 3: Improved Nutritional Status, especially of	of womer	and childre	en				<u> </u>		
Prevalence of stunted children under 5	2005	19.6%	17.88%	16.16%	14.44%	12.72%	11%	Survey	Yearly
Prevalence of wasted children under 5	2005	8.5%	7.8%	7.1%	6.4%	5.7%	5%	Survey	Yearly
Prevalence of underweight women	2005	18.2%	17.56%	16.92%	16.28%	15.64%	15%	Survey	Yearly
Objective 4: Improved Management of Natural Resou	irces						•		
Number of hectares under improved Natural Resource Management as a result of USAID assistance	2010	244,361	161,265					Survey	Yearly
IR I.I: Improved agricultural productivity	•	•	•	•	•	•	·		•
Gross margin per ha of rice	2010	443.5	500	550	600	650	700	Survey	Yearly

Indicator Statement*		es	Targets		Data Collectio						
		Value	2011	2012	2013	2014	2015	Method	Period -icity		
Gross margin per ha of maize	2010	38.5	50	60	70	80	90	Survey	Yearly		
Gross margin per ha of millet	2010	-38.6	10	20	30	40	50	Survey	Yearly		
Number of additional hectares under improved technologies or management practices as a result of USG assistance	2010	197,752	161,265	150,000	150,000	150,000	150,000	Review	Yearly		
Sub IR: Increased agriculture value chain on- and off-f	arm jobs										
Number of jobs attributed to FTF implementation	2010	7281	8,000	8,500	9,000	9,500	10,000	Review	Yearly		
Sub IR: Increased private sector investment in agricul	Sub IR: Increased private sector investment in agriculture										
Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation (\$)	2010	0	900,000	950,000	1,000,000	1,050,000	1,100,000	Review	Yearly		
Number of hectares of farmland registered in the name of the user	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Review	Yearly		
IR 1.2; 2.1: Improved rural infrastructure		•	1		1						
IR 1.3; 2.2: Improved access to finance								•			
Value of agricultural and rural loans made under FTF Implementation	2010	\$1,500,000	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,00	Review	Yearly		
IR 1.4; 2.3: Improved markets											
Percent change in value of intra-regional exports of targeted agricultural commodities as a result of USG assistance	2010	58%	65%	70%	75%	80%	80%	Review	Yearly		
Value of incremental sales (collected at farm/firm level) attributed to FTF implementation (\$)	2010	927768	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000	Review	Yearly		
Number of enterprises, producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance.	2010	1,121	812	1,040	1,066	1,075	1,090	Review	Yearly		

		Baselines		Targets					
Indicator Statement*	Year	Value	2011	2012	2013	2014	2015	Method	Period -icity
IR 1.5; 2.4; 3.3: Enhanced Policy Environment					·				
Number of policy reforms/ regulations/ administrative procedures presented for legislation/decree as a result of USG assistance	2010	0	I	I	1	1	I	Review	Yearly
IR 1.6; 2.5; 3.4: Increased institutional and human reso	ources ca	pacities		•	•	•			•
Number of agricultural institutions reinforced	2010	1	I	1	I	I	I	Review	Yearly
Number of individuals who have received USG supported short-term agricultural sector productivity training	2010	29219	15,840	26,520	21,525	25,000	25,000	Review	Yearly
Number of individuals who have adopted new technologies or management practices as a result of USG assistance	2010	4,338	4090	5783	5105	5000	5000	Review	Yearly
Number of enterprises, producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) who have adopted new technologies or management practices as a result of USG assistance	2010	4,338	4500	5000	5000	5000	5000	Review	Yearly
IR 3.1: Bring to scale ENA	l					l			l
Change in average score on Household Hunger index	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Calc	Yearly
Sub IR: Improved access to diverse and quality foods	l		<b>-</b>			1	1	<b>"</b>	1
Percent of children 6-23 months that received a Minimum Acceptable Diet	2005	21.9%	24%	26.2%	28.4%	30.6%	32.85%	Survey	Yearly
Sub IR: Improved health and nutrition-related behavior	ors	•			•		•	•	•
Prevalence of exclusive breast feeding of children under six months	2005	34%	36%	38%	40%	42%	51%	Survey	Yearly
Sub IR: Improved use of maternal and child health and	d nutritio	on services	•	•	•	•	•	•	•
Prevalence of maternal anemia	2005	70.9%	65.2%	59.5%	55.7%	51.8%	48%	Survey	Yearly

Indicator Statement*		Baselines		Targets					ection
		Value	2011	2012	2013	2014	2015	Method	Period -icity
IR 3.2 Integrate nutrition into the agriculture value ch	nain appr	oach							
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Calc	Yearly
Sub IR: Increased private sector investment in nutriti	on								
Value of new private sector investment in the nutrition sector leveraged by FTF implementation	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Calc	Yearly
IR 4.1: Improved water management	•	•							· <u>·</u>
Number of people in target areas with access to improved drinking water supply as a result of USG assistance	2010	10,200	45,500	45,500	45,500	45,500	45,500	Review	Yearly
IR 4.2: Improved conservation of bio-diverse areas	•	1	1		1	1	1		
Number of hectares in areas of biological significance under improved management as a result of USAID assistance	2010	46,764	30,000	30,000	30,000	30,000	30,000	Review	Yearly
IR 4.3: Increased ability to adapt to climate change									
Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance	2010	0	TBD	TBD	TBD	TBD	TBD	Review	Yearly

<sup>\*</sup> Bolded indicators are required FTF indicators \*\*Commissariat à la sécurité alimentaire, DAPS & WFP