USAID | MALI
FROM THE AMERICAN PEOPLE

SEE FEED CHANGE FUTURE

Strategic Review

FEED THE FUTURE

December 17, 2010

This presentation represents the preliminary strategic direction of a multi-year, whole-of-government, U.S. strategy to address food security in a Feed the Future country or region. It describes partner country progress and outlines how U.S. investments will align in support of partner country priorities. This document has not yet been approved or funded but will form the basis of a multi-year strategy in development.

Presentation Outline

1. Mali's Food Security: Problem and Solutions
2. Country Readiness
3. Intervention Analysis
4. Proposed Interventions & Impact
5. Timeline

1. Mali's Food Security: Problem and Solutions

Problem Statement:

Mali's food security problem is characterized by an underdeveloped agricultural sector that has not fulfilled its potential to stimulate broad-based economic growth; unreliable food markets with seasonal price variations that do not consistently provide sufficient quantities at affordable prices; and a significant proportion of people that do not have nutritionally sufficient diets.

Underdeveloped Agricultural Sectors

- 7% of 43.7 million arable hectares of land currently cultivated.
- 14% of 2.2 million potential irrigable lands currently irrigated.
- 2% of agricultural products on selected value chains planted with improved seeds.

Unreliable Food Markets

- Between 30% - 40% of crop production lost before it reaches the market.
- Seasonal price fluctuations because farmers sell immediately after harvest.

Undernutrition

- 29% of population malnourished.
- 16% of children under five wasted.
- 38% of children under five stunted.

Sources:
Demographic Health Survey 2006
PNIP-SA 2010
Mali: The Demographic Challenge; World Bank 2010
West African Seed Alliance

1. Mali's Food Security: Problem and Solutions

Core Binding Constraints:

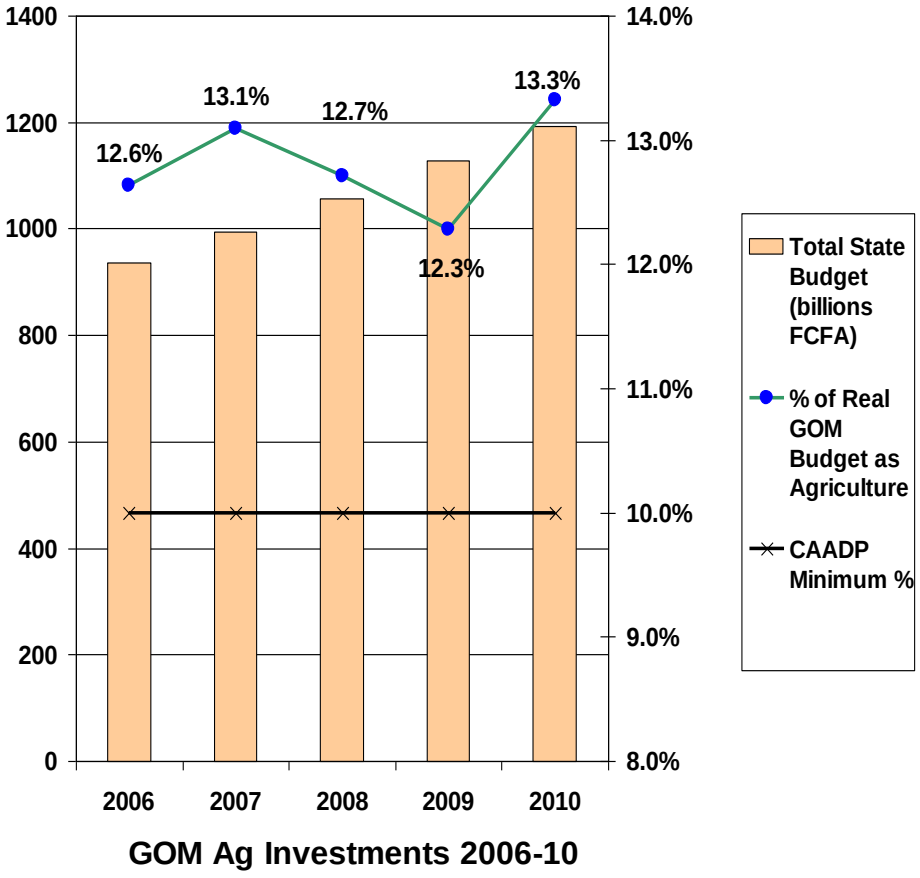
- Despite Mali's enormous agricultural potential, current **low yields and high post-harvest losses** limit the net quantity of food available to feed a quickly growing population.
- **Financial institutions regard agriculture as a high-risk endeavor** due to smallholder-based systems dependent on irregular rainfall.
- **Low household incomes**, particularly among women, limit peoples' ability to purchase nutritious food.
- **Improper feeding practices, high disease burden, poor sanitation and access to clean water and low health service utilization** leads to significant health problems, including stunting and wasting.
- **Weak agricultural policy environment** restricts investment and competitiveness.

Core Strategic Solutions:

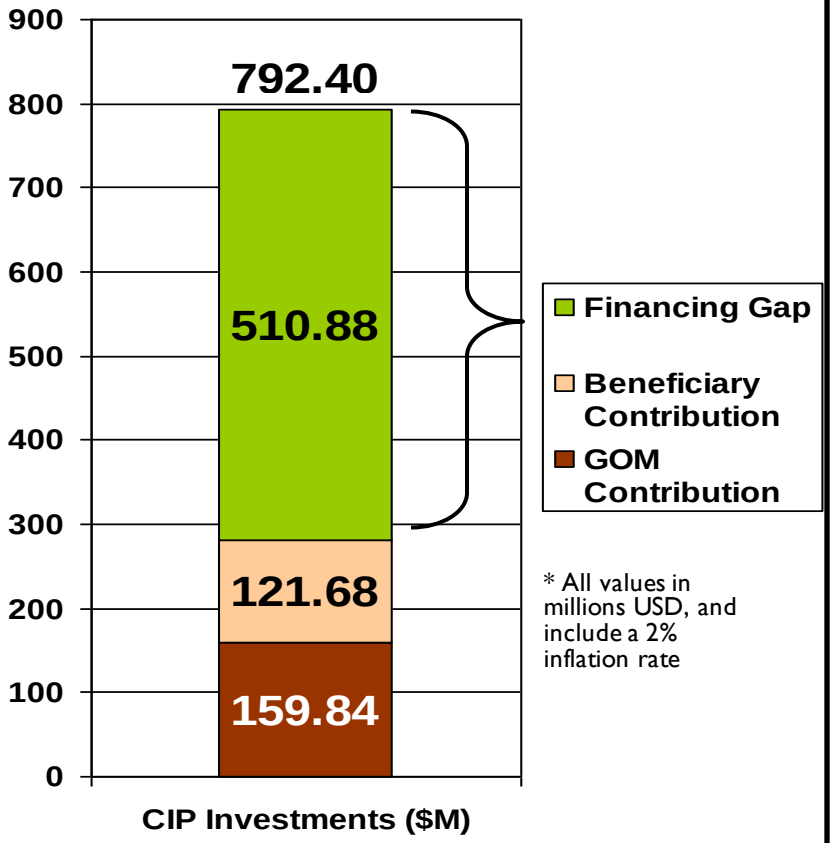
- **Increase yields** by encouraging the adoption of improved seeds, fertilizer, and best agricultural production practices, including water management systems.
- **Improve post-harvest practices,** including storage.
- **Expand access to short and medium-term credit** and improve market information systems.
- **Increase household incomes** by boosting production and developing value-added processing, focusing on creating gender equity.
- **Increase access to and the consumption of nutritious foods** through value-added processing and by promoting healthy behaviors
- **Improve the government's capacity** to collect data, strategically plan, monitor, evaluate, and analyze agricultural programs.

GOM Commitment to Agriculture

Mali's share of agriculture expenditures as a percentage of its state budget has historically exceeded the CAADP guideline…



…but it still faces a significant financing gap for the 2011-2015 National Plan of Priority Investment in the Sector of Agriculture of Mali (PNIP-SA)



* All values in millions USD, and include a 2% inflation rate

* USAID is completing a baseline costing of the PNIP-SA

National Agricultural Policy

The PNIP-SA is the guiding document for all future agricultural investments from 2011-2015

PNIP-SA Architecture | USAID Support for PNIP-SA

PNIP-SA Component	PNIP-SA Sub-components	USAID Strategic Focus	USAID Intervention
Capacity-Building	Skills development; community capacity-building; planning, monitoring, and evaluation; technical capacity reinforcement; cross-cutting issue development; private sector and civil society strengthening.	Value Chain Development; Government Capacity-Building	Capacity-building for producers, traders, and processors; support for LSMS-ISA; support for agriculture CPS.
Investments	Land tenure reform, financing, natural resources management, infrastructure, access to equipment.	Value Chain Development; Government Capacity-Building	Land administration, loan guarantees, development of water points and small-scale irrigation.
Production and competitiveness	Access to input and equipment, market development, promotion of processors, standards.	Value Chain Development	Access to credit, processor capacity-building; development of standards, seed policy.
Research and training	Research & training.	Technological advancement	Long-term training, laboratory and research capacity support, strengthen NARS & IER
Food security	Increasing food stocks, nutritional education.	Value Chain Development	Behavior change for nutrition.

Value Chain Selection

Criteria	Horticulture	Corn	Wheat	Sorghum / Millet	Livestock	Rice	Poultry	Fish / Aquaculture
1.) Total beneficiaries	Low	Low	Low	High	High	High	High	Medium
2.) Market demand	Low	High	Medium	High	High	High	High	High
3.) Poverty reduction & vulnerability	Low	Medium	Low	High	High	High	High	Medium
4.) Nutrition	High	Low	Medium	Medium	High	Low	High	High
5.) GOM priority	Yes	Yes	No	Yes	Yes	Yes	No	Yes
6.) Multiplier Effects	No	Yes	Yes	Yes	Yes	Yes	No	No
7.) Economic growth	Low	Medium	Low	Medium	High	High	Medium	Medium
8.) Donor Saturation	Medium	Low	Low	Low	High	High	Medium	Medium

Sorghum / Millet, Rice, and Livestock, best fit the criteria developed by USAID/Mali for future agricultural development as part of the Feed the Future program.

Geographic Priorities

In order to focus our investments in areas that will have the greatest impact on raising smallholder incomes, reducing poverty, and combating malnutrition, USAID/Mali will operate in Mopti, Sikasso, Segou, Koulikoro, and Timbuktu.

Criteria for geographic prioritization:

1. Economic benefits for smallholders.
2. Total number of beneficiaries.
3. Incidence of poverty.
4. Percentage of stunting / wasting.
5. USAID/Mali impact potential.

Region	% Total pop.	# farms in millet / sorghum	# farms in rice	# of cattle	% Poverty	% of stunting	% wasting
Sikasso	**18**	110	24	1085	83	**45**	16
Segou	17	138	24	768	71	40	15
Koulikoro	16	156	12	977	75	39	16
Kayes	14	88	7	728	50	31	15
Mopti	15	**158**	**43**	**1907**	**89**	41	13
Timbuktu	5	31	31	689	61	44	17
Gao / Kidal	4	21	29	**635**	23	~33	**~20**
Bamako	11	4	1	22	24	23	14

Note: All numerical values in thousands

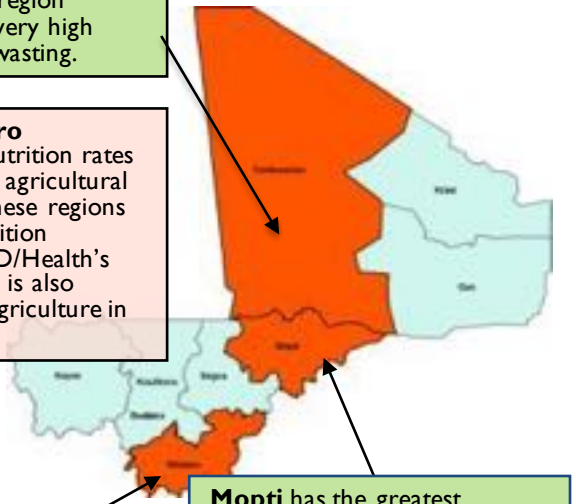
Population of Mali is 14.5 million

AEG and Health Interventions

Health Interventions

Timbuktu produces sorghum and rice in inland lake areas, and is an important origination point for cattle. An important region politically, it also has very high rates of stunting and wasting.

Segou and Koulikoro experience high malnutrition rates despite relatively high agricultural yields. Coverage in these regions will be limited to nutrition interventions in USAID/Health's target districts. MCC is also developing irrigated agriculture in Segou.



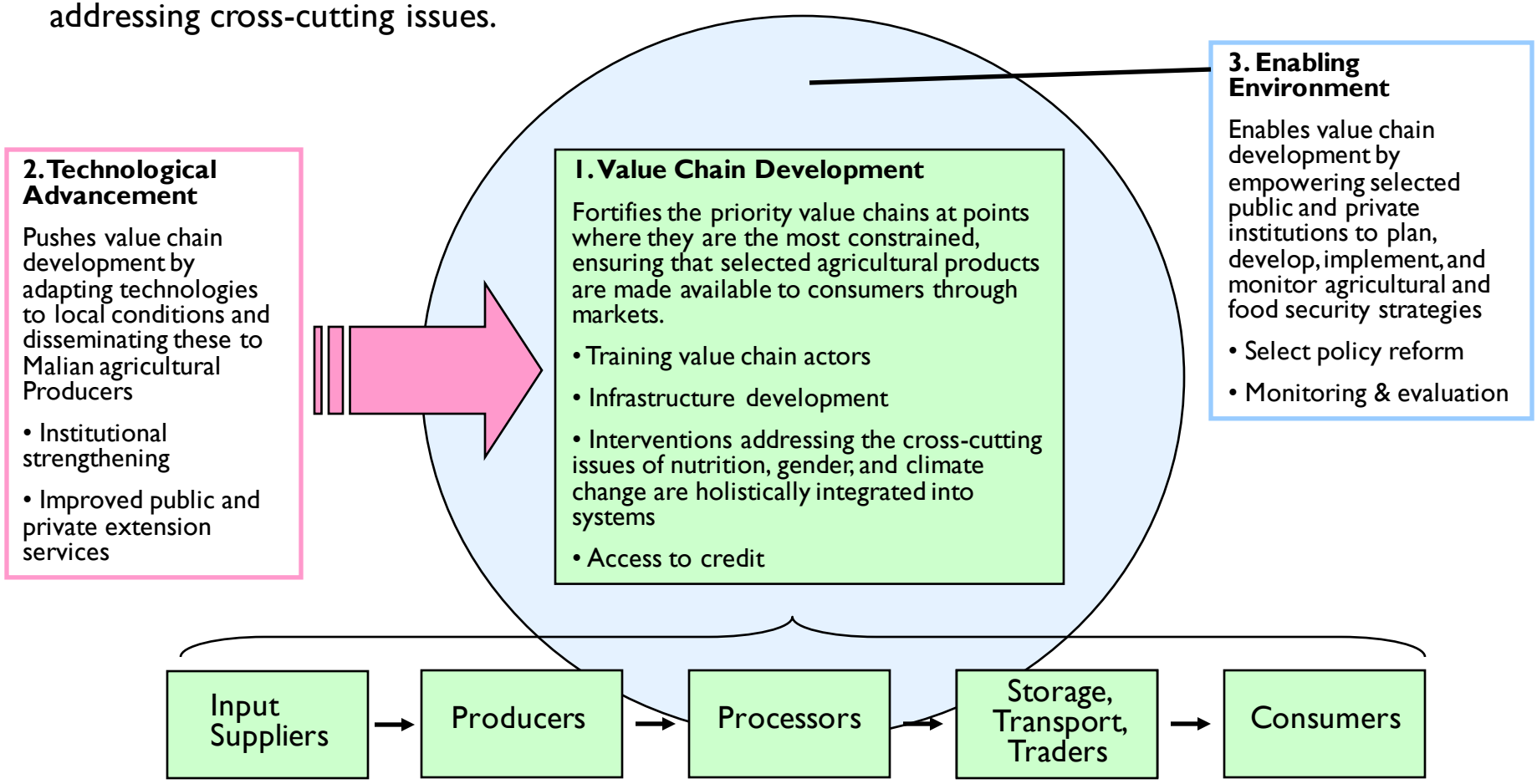
Sikasso is the most agriculturally productive region in Mali and is also a gateway for cattle export. It is the most populous region with the highest percentage of stunting.

Mopti has the greatest number of farmers working in the target areas of millet, sorghum, rice, and cattle production. It is also the poorest region in Mali, with an 89% incidence of poverty and very high levels of stunting and anemia.

Sources:
PNIP-SA 2010
Mali: The Demographic Challenge; World Bank 2010

USAID Investment Components

Value chain development is at the center of USAID/Mali's Feed the Future strategy. Through three types of interventions in three priority value chains, the strategy strengthens each value chain's capacity to produce more nutritious foods and deliver them to markets while increasing smallholder incomes and addressing cross-cutting issues.



Foundations for Success

The USAID/Mali Feed the Future Strategy draws upon expertise gained from a deep, long-term involvement in the agricultural sector that provides a base for transformational change.

The USAID/Mali Feed the Future strategy will work for several reasons:

1. Aligned with and supports the PNIP-SA.
   - Government-driven, donor-coordinated process.
   - USAID/Mali will catalyze public and private agricultural sector donor groups by coordinating and complementing their work.
2. Market-based strategy.
   - Leverages market structures to extend reach and impact of investments.
   - Builds capacity of producer organizations and links them with traders and processors to ensure consistent supply and quality standards.
   - Supports value-added processors to diversify their offerings, expand markets for products, and ensure price stability for raw materials.
3. Focuses only on strategic interventions with a high economic and food security impact.
   - Builds small-scale irrigation systems that have a great potential for success due to investments of local communities.
   - Complements MCC work in the rice sector by concentrating on small-scale irrigation systems.
4. Builds on past USAID/Mali experience with value chain development.
   - Long-standing relationships with Cellule de Planification et de Statistique (CPS) and the Institut d'Economie Rurale du Mali (IER) / University of Bamako.

Change Agents

Several agents of change in Mali will transform the agricultural sector by leveraging USAID/Mali Feed the Future investments with the private sector.

Change Agent	Change Dynamic
Producer organizations	Increase quantity and quality of agricultural production by shifting from sustenance farming to a commercial system.
Trader organizations	Improve the efficiency in the distribution of products and services in Mali's infrastructure-challenged environment.
Processors	Open and expand markets, including for diverse nutritious foods.
Financial Institutions	Provide a range of financial services necessary to expand and improve businesses.
University of Bamako / IER	Generates and delivers agriculture technology that catalyzes productivity.
Input suppliers	Private sector channel that delivers quality inputs and technical information to farmers.

Value Chain Overview

Priority Value Chains Contribution to Mali Feed the Future Objectives

Millet and Sorghum for Food Security and Poverty Reduction

- Consumed in large quantities by all Malians, regardless of location or income status (Mali PNIP-SA).
- Increased income for women through processing.

Rice for Incomes and Growth

- Contributed to 4.1% of GDP in 2009 (PNIP-SA).
- Production of rice grew 7% annually from 1990 – 2007 (RuralStruc 2008).
- Potential for producers to gain $589.3 million over 10 years by increasing yields and limiting post-harvest losses (IFPRI 2006).

Livestock for Growth and Nutrition

- Third-largest export commodity (after gold and cotton) (International Trade Centre).
- Contributed 0.4% to GDP growth in 2009 (INSTAT / DNPD).
- Important source of protein and iron in the Malian diet.

Millet & Sorghum Value Chain

Millet and Sorghum for Food Security and Poverty Reduction

Situational Analysis

- 11.7% contribution to agricultural GDP growth (IFPRI 2006).
- Comparative advantage due to greater tolerance to more adverse rainfall and soil conditions than rice or corn (Sanders & Ouendeba 2010).

Opportunities

- Households in higher income quintiles consume more millet & sorghum than other households (IFPRI 2006).
- A combination of yield increases and improved post-harvest handling is expected to net producers $253.3 million over 10 years (IFPRI 2006).
- Value-added applications projected to contribute to increased demand over the next five years (Sanders & Ouendeba 2010).
  - Improved packaging.
  - Growing demand for animal feed (especially for poultry).
  - Substitute for wheat flour.
  - Biofortification of sorghum.

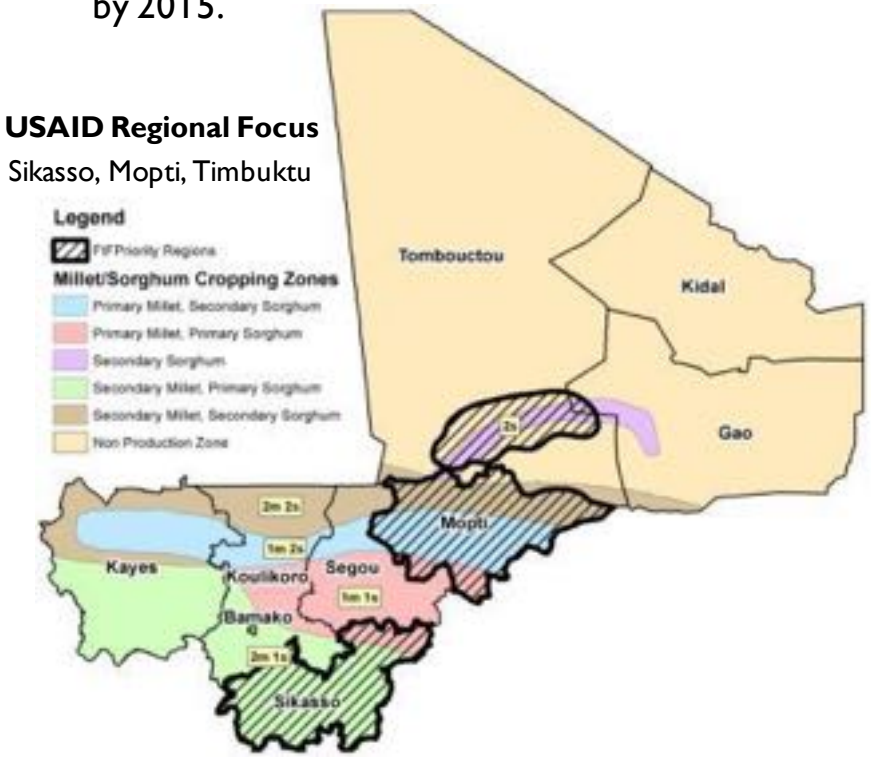
PNIP-SA Targets

Production increases to be driven by improving yields:

- Sorghum: 95% yield increase → 103% production increase by 2015.
- Millet: 36% yield increase → 41% production increase by 2015.

USAID Regional Focus

Sikasso, Mopti, Timbuktu



Millet & Sorghum Value Chain

Key Constraints

- Low yields (0.9 tons / hectare)
- High post-harvest losses (~30% of the crop).
- Post-harvest seasonal price crash.
- Low level of market information.
- Difficult to forecast how much quality product can be supplied to processors.

Key Transformations

- Improve yields.
- Limit post-harvest losses.
- Promote value-added processing (improved packaging, animal feed, wheat flour substitute).
- Develop and disseminate quality standards.
- Improve market information systems.
- Connect producers and processors, support large processors, including the *Grands Moulins du Sahel*.

Inputs | **Harvesting** | **Storage** | **Processing** | **Storage** | **Transport** | **Markets**

- Adapt to local conditions and disseminate **improved seeds**.
- Work with financial institutions to encourage **access to credit** for procurement of seeds and fertilizer.
- Improve **extension services** and introduce **best practices**.

- Build **improved storage** facilities to limit post-harvest losses.

- Work with financial institutions to ensure **access to credit** for processors.
- Provide **technical assistance** to food and feed processors.
- **Facilitate contracts** between producers and processors to consistently supply agreed-upon quantities of quality cereals.

- Develop and disseminate information on a uniform set of **grades and standards**.
- Develop linkages with **WFP Purchase for Progress.**
- Improve **market information systems.**

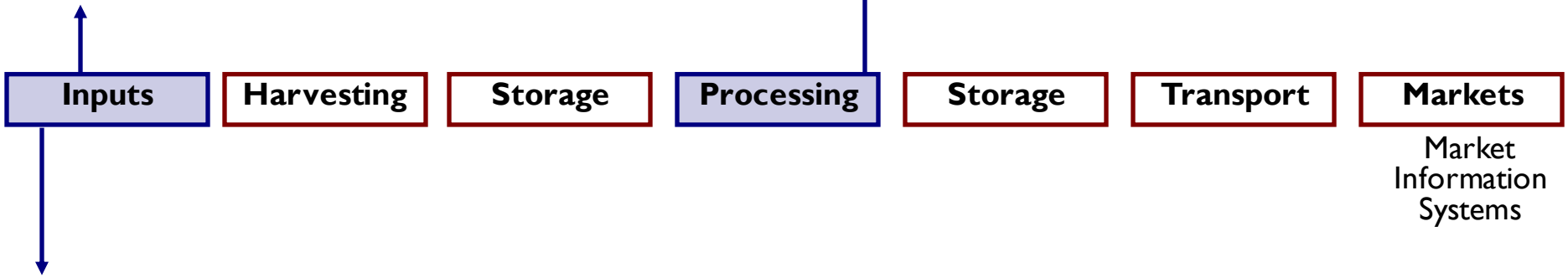
Millet & Sorghum Cross-Cutting Issues

Climate Change

- Millet and sorghum can grow in areas with variable rainfall.
- Test and disseminate production technologies (cultural practices & varietal improvement) that help farmers to adapt to climate change.
- Support decrue sorghum techniques in areas with residual humidity.

Gender

- Most processors are women.
- Improve access to credit, technology, and develop market linkages to increase women's incomes.
- Reduce household preparation time by producing preferred products in improved packaging.



Nutrition

- Work with IER and IPR to introduce, produce, and disseminate millet and sorghum seeds biofortified with iron and zinc.
- Increase consumer awareness of nutritious properties of biofortified millet and sorghum to address micronutrient deficiencies and drive demand for these products.
- Work with the GOM to develop outreach activities to build consumer awareness of fortified foods.

Rice Value Chain

Rice for Incomes and Growth

Situational Analysis

- Contributed 0.30% to Mali's GDP growth in 2009 (INSTAT / DNPD).
- Consumption has risen from 34kg/person in 1989 to 53 kg/person in 2001 to 57kg/person in 2007. Consumption in Bamako reached 67 kg/person in 2001 (RuralStruc Mali).

Opportunities

- High potential for rural poverty reduction by focusing on smallholders and small scale irrigation schemes.
- Income diversification possible with fish intercropping and horticulture production in off-season.
- Demand expected to grow as urbanization continues in Mali and in the region.
- Proposed USAID/Mali investments complement MCC work in the rice sector by focusing on small-scale irrigation systems.

PNIP-SA Targets

- "Increase rice production by increasing areas through creation of new irrigated worked out zones and by intensification" (Mali PNIP-SA).
- Develop 9,614 hectares of village irrigated perimeters by 2015.
- Develop 17,413 hectares of lowland areas and ponds by 2015.
- Target of 168,262 tons of rice from newly developed areas totaling 27,027 hectares by 2015.

USAID Regional Focus

Sikasso, Mopti, Timbuktu

Rice Value Chain

Key Constraints

- Low yields.
- Insufficient number of small-scale irrigation systems.
- Limited price potential from low use of quality processing.
- Low level of market information.
- Difficult to forecast how much quality product can be supplied to processors.

Key Transformations

- Develop more small scale irrigation systems.
- Improve quality of post-harvest product
- Increase usage of and access to improved seeds.
- Disseminate best agricultural practices (including SRI).
- Increase access to fertilizer.
- Promote value-added processing.
- Complement MCC and other donor efforts by focusing on lowland areas.
- Improve market information systems.
- Connect producers and processors.

Inputs

- Build more **small-scale irrigation systems.**
- Adapt to local conditions and disseminate **improved seeds**.
- Work with financial institutions to encourage **access to credit** for procurement of seeds and fertilizer.
- Improve **extension services** and introduce **best practices in Systems of Rice Intensification** and in the use of fertilizer.

Harvesting

Storage

- Build **improved storage** facilities to limit post-harvest losses.

Processing

- Work with financial institutions to ensure **access to credit** for processors and traders.
- Provide **technical assistance** to food processors.
- **Facilitate contracts** between producers and processors to consistently supply agreed-upon quantities of quality cereals.

Storage

Transport

Markets

- Develop and disseminate information on a uniform set of **grades and standards**.
- Improve **market information systems.**

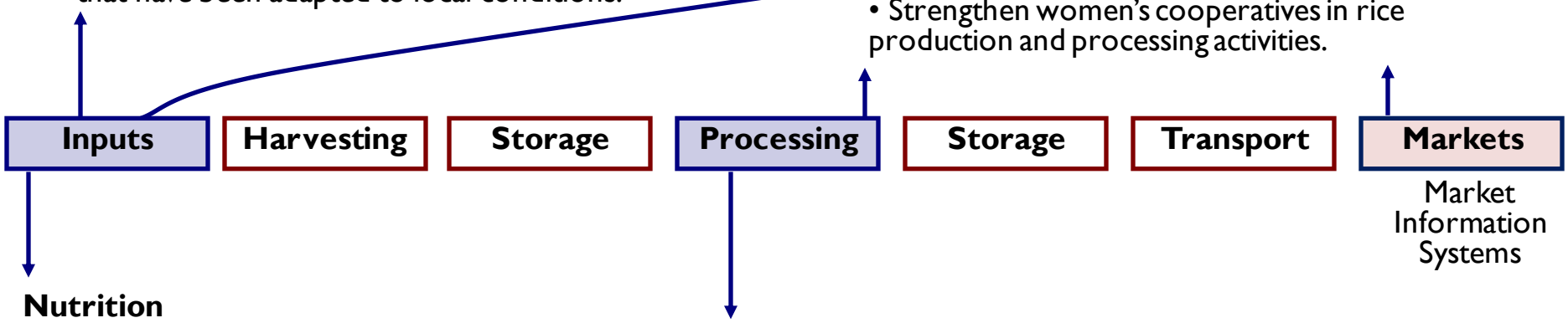
Rice Cross-Cutting Issues

Climate Change

- Build water retention gates and promote good water management techniques to reduce rice production vulnerability to climate change.
- Develop small-scale irrigated perimeters to increase adaptation to climate change.
- Disseminate and increase access to improved seeds that have been adapted to local conditions.

Gender

- Major role of women in production and processing in lowland rice areas.
- Most value-added processing conducted by women or women's organizations.
- Increase women's incomes in production and processing.
- Strengthen women's cooperatives in rice production and processing activities.



Nutrition

- Irrigated crop that has add-on potential in aquaculture intercropping and vegetable production.
  - Vegetable production is a natural cycle following rice production.
  - USAID/Mali has preexisting programs with Aquafish CRSP to promote aquaculture intercropping in *bas fonds* and other small-scale irrigation systems.
  - Possible to produce five tons of rice and one ton of fish from one hectare of rice.
- Smallholders can purchase other nutritious foods with revenues gained from rice produced and processed, thereby improving dietary diversity.

Livestock Value Chain

Livestock for Growth and Nutrition

Note: Livestock only refers to cattle and small ruminants (sheep, goats). It does not include poultry, aquaculture, or dairy.

Situational Analysis

- High and growing demand for livestock and livestock products.
- High income generating potential for women in the area of small ruminants.

Opportunities

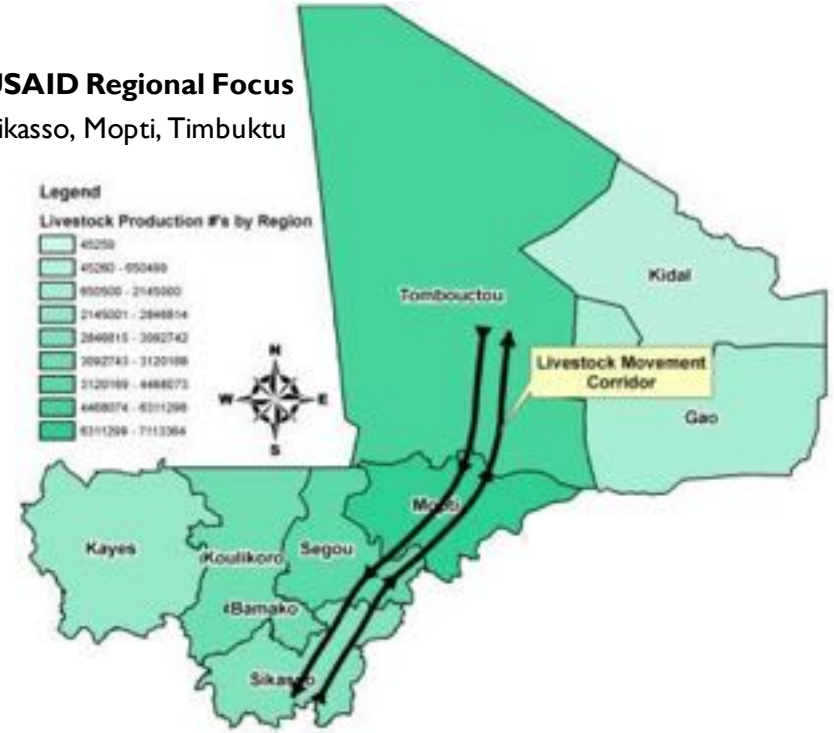
- "In Mali, the practice of animal husbandry concerns at least 80% of the rural population and constitutes the main source of incomes for more than 30% of the population" (Mali PNIP-SA).
- Value chain extensions in hides, dairy, and meat.

PNIP-SA Targets

- "Increase livestock – meat production by increasing the existing livestock productivity and by increasing its growth rate" (Mali PNIP-SA).
- Targeted growth rate of meat production increasing one percentage point annually from 5% in 2011 to 9% in 2015.

USAID Regional Focus

Sikasso, Mopti, Timbuktu



Livestock Value Chain

Key Constraints

- Many heads of animals, but low meat production.
- Poor animal health.
- Lack of access to improved feed and water.
- Long distance to markets.
- Lower prices paid for animals in poor health.
- Low level of market information.

Key Transformations

- Improve access to and increase usage of supplemental feeds.
- Build more water provisioning points.
- Improve animal health.
- Improve market information systems.

Inputs | **Migration** | **Slaughter** | **Storage** | **Transport** | **Markets**

- Improve access to and use of **supplemental feed**.
- Disseminate information on **least cost feed ratios**.
- Build capacity among laboratory technicians in the field of **animal health**.
- Increase **vaccine production**.
- Conduct **residue analysis**.

- Develop **water points** to improve water provisioning.
- Increase usage of **remote sensing** techniques.

- Improve **market information systems.**
- Increased production lowers unit price, **increasing consumption.**

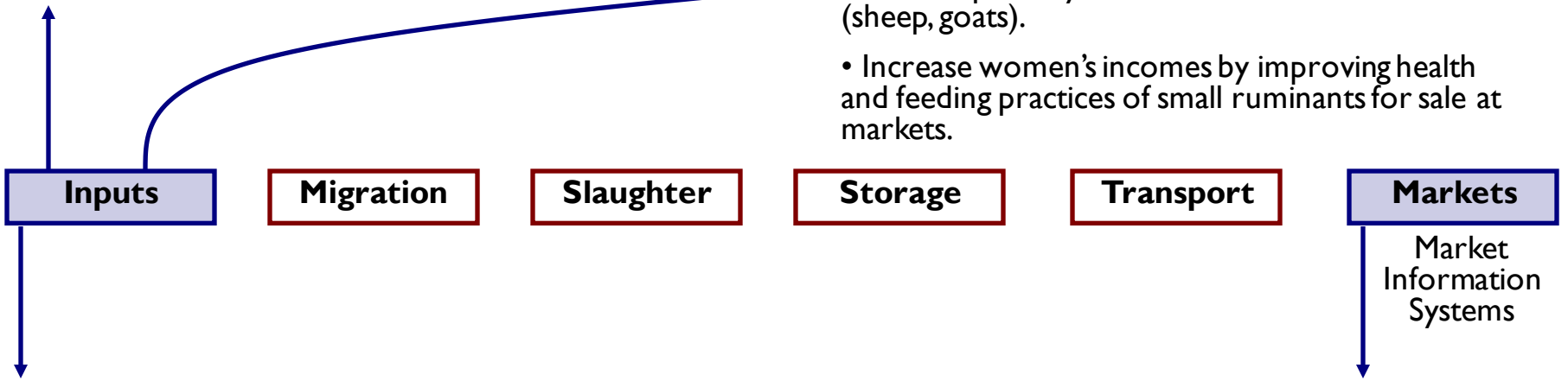
Livestock Cross-Cutting Issues

Climate Change

- Promote better natural resource management.
- Increase water points and improve management to minimize cattle vulnerability to drought.

Gender

- Heavy women's involvement in small ruminants.
- Low barrier to entry for women to engage in animal husbandry.
- Women primary farmers of small ruminants (sheep, goats).
- Increase women's incomes by improving health and feeding practices of small ruminants for sale at markets.



Nutrition

- Livestock herders, many of whom are women, can diversify their families' nutritional intake by selling livestock / meat for money that can be used to purchase other nutritious foods, thereby improving dietary diversity.

Projected Value Chain Outcomes

Proposed Investment	Quantity built / assisted	Beneficiaries per unit	Total beneficiaries
Storage	50	350	17,500
Water gates (rice)	62	1,400	87,000
Water boreholes (livestock)	30	N/A	N/A
Water gates (livestock)	30	N/A	N/A
Producer capacity-building	500 organizations	350	175,000
Trader capacity-building	300 networks	N/A	300 networks
Processor support	10-12 formal; 300 village	N/A	312 processors
Financial services development	500 producer organizations; 300 processors; 300 trader networks	350 per producer organization	175,000+

Source: USAID/Mali AEG internal estimates

Monitoring & Evaluation

Building strong monitoring & evaluation capabilities across multiple levels in the Government of Mali is necessary to ensure proper high-level agricultural strategic planning, program monitoring, and decision-making.

USAID/Mali will focus on four areas:

1. Building and improving the quality of data to support decision making, including the Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA), Demographic Health Survey (DHS), and Monitoring Externe National Oriente vers les Resultats (MENOR).

Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA)

Objectives:

- Improve the quality, timeliness, and relevance of household-level agricultural statistics.
- Emphasis on sustainability, capacity-building, and improving data collection methods.

Monitoring Externe National Oriente vers les Resultats (MENOR)

Objectives:

- Assess the performance of donor-funded programs and projects.
- Erect a joint analysis framework with the Planning and Statistics Unit of the Ministry of Agriculture

2. Building the capacity of the Ministry of Agriculture and the Cellule de Planification et de Statistique to analyze and interpret data to support decision making.

3. Project monitoring and evaluation, including the development of baselines.

4. Developing a series of impact studies to better inform the development process.

- Cost-benefit analyses.
- Economic impact studies.

Illustrative Policy Agenda

Through the reform of priority policy issues and the capacity building of select institutions, USAID/Mali will foster a policy enabling environment that encourages and sustains our value chain investment activities.

USAID is developing analytics to support a prioritized policy agenda. Indicative policy areas include:

Issue	Why it Matters	USAID/Mali Intervention
Improving seed policy	- Improved seeds take too long to be licensed for commercial reproduction and distribution, resulting in a low availability of improved seeds for farm use.	- Support GOM to reform policy to foster private sector participation in seed sector.
Promoting nutrition as an elevated cross-cutting issue in GOM ministries	- The importance that multiple sectors, micronutrient consumption, and non-food determinants have on nutrition statuses requires a multi-sectoral GOM approach. -There is currently no central inter-ministry GOM to promote and coordinate nutrition policy.	- Support GOM to establish an elevated inter-sectoral nutrition office. - Supply technical support to the Ministry of Health to reevaluate its ten-year health strategy and plan for the next five years. - Support GOM to formulate and pass industrial food-based fortification legislation.
Land administration reform	- Solid land registry system necessary to prevent and resolve conflict, and to enable farmers and processors to access credit.	- Support GOM efforts to develop an electronic-based land title registry.
Intellectual Property Rights	- Violations and intellectual piracy are major problems; Mali must commit to protect plant varieties as part of its TRIPS commitment. - Current legislation is not compliant with current international norms and agreements, and IPR enforcement and knowledge is low.	- Partner with the U.S. Department of Commerce to provide assistance in the areas of intellectual property administration, legislation, enforcement, and public awareness.
Ineffective fertilizer subsidies	- Current government subsidies program dampens private sector ability to provide fertilizer on a competitive basis.	- Support GOM to improve efficiency and target subsidies to reduce market distortion. - Commission a study on fertilizer markets to further develop the private sector fertilizer system.
Various trade barriers (including lack of standards)	- Limits market opportunities. - Regional trade barriers reduce the trade competitiveness of Malian agricultural products.	- Advocate for a reduction in non-tariff barriers. - Support implementation of ECOWAS standards and develop harmonized standards where they do not exist.

Analytical Foundation for Gender Mainstreaming

USAID/Mali is committed to a gender mainstreaming approach, through which we can improve value chain efficiencies and achieve better food security outcomes. We will lay the foundation for this approach through the following steps.

1. **Complete a full gender analysis in our priority value chains** in order to better understand gender relations and roles along these value chains; to identify gender-based constraints, consequences, and opportunities; and develop a continuum of possible strategies to increase women's abilities to participate in and benefit from economic opportunities.
2. **Work with the GOM to ground the PNIP-SA in solid gender analysis**;
3. **Develop a gender toolkit for our partners** that will synthesize gender research and standardize a gender analysis approach in order to reinforce their operational capacities to integrate gender analysis into the planning, implementation, and monitoring and evaluation of food security programs.
4. **Develop specific operational guidance** on gender for program implementation.

Illustrative examples of a gender-based analysis and interventions in Malian value chains and nutrition:

FS Area	Value Chain/ Component	Gender–Based Constraint	Consequences	Possible Market-Based Intervention
Availability	Cereals Production	• Women's farm productivity limited due to labor-intensive practices and limited access to technologies and agricultural extension services.	• Low farm production. • Women have less time for other income-generating projects and for managing household affairs.	• Promote women's access to labor-saving technology, such as improved seeds, weeding and harvesting equipment, and intercropping techniques. • Capacity reinforcement to government ag extension agencies in order to recruit and train more female extension workers.
Access	Cereals Marketing & Commercialization	• Women restricted from full participation in commercialization processes due to slotted roles, lack of market information/contacts, and lack of access/control over capital.	• Lack of competition and entrepreneurship in marketing of grains. • Women's share of profits from value chain limited.	• Facilitate access to commercialization and business credit. • Develop and "democratize" channels of market information. • Educate value chain actors on the mutually beneficial advantages of more equitable commercialization processes.
Utilization	Nutrition	• Women have a low level of education, which leads to an insufficient knowledge of nutrition and poor health.	• Poor nutrition in family.	• Incorporate nutrition messages into business, agriculture, and literacy training.

Reducing Undernutrition

IMPROVED NUTRITION FOR WOMEN AND CHILDREN

Improved access to diverse and quality foods	Increased resilience of vulnerable communities	Improved nutrition and hygiene behaviors	Improved utilization of MCH and nutrition services

•Proposed intervention

- Improve agricultural productivity, storage and distribution, and value-added processing.
- Food-based anemia prevention and control
- Industrialized food fortification*
- Behavior Change Communication+
- Increase access to ORS/Zinc for diarrhea*
- Community mobilization*
- Improve sanitation
- Strengthen facility and community-based services*
- Improve access to potable water+
- Improve access and availability of complementary weaning foods
- Support vitamin A, deworming, NTD and immunization campaigns*
- Strengthen pre-service training for Ag/Health Extension workers
- Strengthen the enabling environment+

AEG-led components

Health Team components

***existing program**

+ exists but will be significantly modified under Feed the Future

Feed the Future Nutrition Impact

Nutrition interventions are embedded into our value chain approach, ensuring that nutritional impact is sustainable and market-driven.

Increase the **availability** of nutritious foods through:

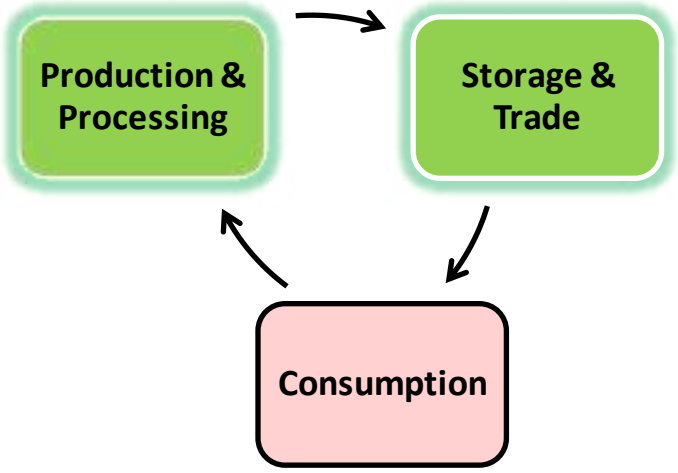
1. Production of bio-fortified crops

- **Millet & Sorghum** fortified with iron and zinc

2. Value-added processing of millet and sorghum

3. Multiplier effects on other value chains

- Rice irrigation systems can spur **horticulture** and **fish** production through off-season gardening and intercropping methods.
- Sorghum production is processed into animal feed which can improve the quality and drive down the price of **poultry** and **eggs,** which represent important sources of protein.
- Improving livestock production positively impacts **meat** and **dairy.**



Improve the **stability** and **access** of nutritious foods through:

1. Better storage and market systems

- Improves the market's ability to deliver affordable nutritious foods to households throughout the year.

2. Increased Incomes

- Farmers and processors, including women, improve incomes through our core value chain investments, better allowing them to purchase a diverse array of foods.

Improve the **utilization** of good nutrition practices through:

Behavior Change Communication (BCC)

- Promote key messages in nutrition and water and sanitation

Water, Sanitation, and Hygiene (WASH)

- Increase access to potable water through small grants and POU water treatment in intervention areas, thereby reducing diarrheal disease burden. Promote use of oral rehydration salts with zinc supplementation to treat diarrhea.

Micronutrient supplementation and deworming

- Reduce rates of Vitamin A and zinc deficiency, anemia, and reduce the helimith burden to improve bioutilization.

Increased access and utilization of High Impact Health Services

- Reduce infectious disease burden contributing to poor absorption and nutritional status.
- Decrease fertility rates by addressing unmet need in family planning

AEG-led components

Health Team components

Areas Not Formally Supported

Due to the emphasis on deepening and strengthening agricultural commitments to targeted value chains in the Feed the Future strategy, USAID/Mali must be selective about the areas in which it engages.

Value Chains

- Corn
- Mangoes
- Sesame
- Many livestock chains.
  - Camels
  - Poultry
  - Hides / Skins
- Dairy
- Sugar
- Jatropha
- Cotton

Infrastructure

- Large infrastructure (including heavy irrigation).
  - Little effect on poverty reduction.
  - High amounts of capital investment needed.
- Feeder road construction.
  - Missing analytics.
  - High investment costs.
- Cold chain development.
  - Energy and physical infrastructure lacking.
- Energy
  - High amounts of capital investment needed.
  - Lack of skilled technicians.

Technologies

- Developing new seeds.
- Biotech.
- Granting / donating new processing equipment.

Whole of Government Approach

Feed the Future will benefit from key USG collaboration in these areas:

Department of State will help move the policy agenda forward at the highest levels of the GOM.

United States Department of Agriculture will assist in the agriculture policy agenda, grades and standards, school feeding, and various capacity building programs (e.g. technology, SPS).

Peace Corps will support community-based nutrition activities, strengthen producer organizations and women's groups, and engage in small business development.

The Commercial Law Development Program of the Department of Commerce will improve the intellectual property rights regime in Mali.

Millennium Challenge Corporation includes several thematic areas that will move agriculture forward for poverty reduction. Collaboration will strengthen both programs, assure the sustainability of USG investments and reinforce the foundation of solid agricultural growth for poverty reduction. Potential areas of collaboration include:

- the rice value chain;
- technology development, innovation and transfer;
- land and water rights and administration, and other policy issues; and
- capacity building of all levels of agricultural actors.

USGS will assist in remote sensing for water point identification.

Donor Involvement

Value Chain	Donor Organizations	Comparative Advantage and Complementarity
Sorghum/ Millet	USAID	• USAID has successful and scalable experience with INSTORMIL CRSP.
Livestock & Dairy	USAID, LUX-DEVELOPMENT, THE WORLD BANK, THE BELGIAN DEVELOPMENT COOPERATION .be, IFAD, Danida, UNIDO, JAPAN, BOAD	• Insufficient donor support in pastoral livestock. • Opportunities for coordination through PNIP-SA and agriculture PTF.
Rice	USAID, MILLENNIUM, SNV, gtz, THE WORLD BANK, JAPAN	• Majority of donor involvement in Segou region (Office du Niger) and in large-scale irrigation systems. • Opportunity to complement through small scale systems in other regions. • Significant and scalable USAID experience in small scale systems.

Evolution of Feed the Future Programming