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Programme de Renforcement du Secteur Coton
en Afrique de l'Ouest et du Centre



USAID WACIP

West African Cotton Improvement Program

Performance Monitoring Plan Revised May 2011

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List of Acronyms

ATA	Aid-to-Artisans (USAID WACIP Sub-recipient)
Bt	<i>Bacillus Thurengensis</i> (Genetically Modified Cotton)
C-4	Benin, Burkina Faso, Chad and Mali
CBO	Community Based Organization
COP	Chief of Party
DT	Domestic Trade
EA	Environmental Assessment
EPA	Environmental Protection Agency (US)
FCFA	<i>Franc Communauté Financière d'Afrique</i> (Benin, Burkina Faso, Mali) or <i>Franc Cooperation Financière en Afrique</i> (Chad)
GAP	Good Agriculture Practices
GFSR	Global Food Security Response (USAID)
GM	Gross Margin
Ha	hectares
IEHA	Initiative to End Hunger in Africa (USAID)
IFDC	International Fertilizer Development Center
IPM	Integrated Pest Management
ISFM	Integrated Soil Fertility Management
LEC	<i>Lutte étagée ciblée</i> (LEC)
Mt	Metric tons
NGO	Non-governmental organization
NAC	National Advisory Committee
OC	Organic Cotton
PMP	Performance Monitoring Plan
PPE	Personal Protection Equipment
PPP	Public-Private Partnership
PSE	Program Sub-Element
RT	Intra-Regional Trade
RUP	Restricted use pesticide
TT	Total Trade
USD	US dollars
USDA	United States Department of Agriculture
USAID	United States Agency for International Development
USAID/WA	United States Agency for International Development/West Africa Mission
USG	United States Government
WACIP	West African Cotton Improvement Program

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I. Introduction

The USAID West African Cotton Improvement Program (WACIP) was initiated in December 2006 by the U.S. Agency for International Development's West Africa Mission (USAID/WA) to improve the competitiveness of cotton in the four countries of Benin, Burkina Faso, Chad, and Mali (hereafter referred to as the "C-4" countries). The program falls under USAID's Program Area 5 (Agriculture) and focuses on improving the agricultural enabling environment (policy) and increasing productivity (Program Elements 5.1 and 5.2 respectively). The USAID WACIP program, originally scheduled to end in November 2009 was extended in 2009 and again in 2010 and 2011. The end date at the time of the current revision is April 2012.

The International Fertilizer Development Center (IFDC) is the lead implementer of USAID WACIP, with additional technical support provided at varying times in the course of the project by six US-based organizations. Abt Associates Inc. assists IFDC to strengthen cotton value chains and cotton-textile-apparel complexes, develop measures to protect cotton quality and condition and remove contamination, and with overall project monitoring and evaluation. Michigan State University provides expertise and support on aspects pertaining to policy reform (in particular, biotechnology and bio-safety). Tuskegee University provides expertise in developing new technologies to improve cotton production and processing. Aid-to-Artisans (ATA) assists in adding value to, and finding markets for cotton-based end products. Auburn University provides technical assistance to research and extension personnel in farming systems technologies for small farmers, and technical assistance for training to enhance cotton ginning efficiency.

The program supports various actors along the cotton value chain in the C-4 countries. Main stakeholders include producers, research institutions, input dealers, ginners, textile producers, cotton artisans and other cotton processors, as well as the government and regulatory bodies responsible for creating and maintaining an enabling environment for a dynamic cotton sector.

Monitoring and evaluation of grant and non-grant activities are coordinated by IFDC. Grant recipients along with the project's field-based team play a major role in data collection and reporting. Together with all partners involved, IFDC ensures that all activities are carried out according to i) IFDC procedures and ii) USAID-approved project documents, including the Grants Manual, the Initial Environmental Evaluation, the Environmental Assessment, the 2010 Evaluations and Recommendations for Cotton Integrated Pest Management (IPM) and Pesticide Best Practices in WACIP. IFDC also ensures that the results targets for USAID-funded activities, as illustrated in the Indicators and Targets Table (Annex I), are monitored and achieved.

In order to measure USAID WACIP's success, IFDC designed this Performance Monitoring Plan (PMP), which was first approved on November 12, 2008. Following a 15-month extension of the project until April 2012, the PMP was revised in May 2011 to i) bring clarity to certain of the original 37 indicators, and ii) reflect the results expected from new activities approved during the extension.

This Performance Monitoring Plan lays out the monitoring and evaluation system that project staff will use to determine the project's success. Required under the terms of the USAID-IFDC cooperative agreement governing the implementation of USAID WACIP, this PMP commits the implementing team, under the leadership of IFDC, to follow specified procedures for delivering specific results to USAID. The PMP establishes linkages between 1) the approaches, indicators and targets described in the program description; 2) the activities described in the annual work plans; and 3) the USAID Operational Plan Program Elements and Sub-Elements. The PMP presents and defines program-specific objectives, terminology, beneficiary populations, indicators, measurements, and targets. It also develops the monitoring and evaluation system to be used for data collection, analysis and reporting.

II. USAID WACIP Goals and Objectives

USAID views the development of a competitive, well-run cotton sector as critical to the economic growth, food security, and the well-being of millions of cotton farmers and their families in the C-4 countries.

Goal

The overall goal of USAID WACIP is to reduce poverty and hunger by increasing the incomes of C-4 cotton farmers and processors. This goal directly supports the USAID goal to significantly contribute to poverty and hunger reduction in Africa; the United Nations Millennium Development Goal (#1) to reduce hunger and poverty in Africa by half by 2015; and the USAID/WA Mission Objective: Enhanced capacity to achieve regional food security, improved natural resource management, and agricultural growth within West Africa.

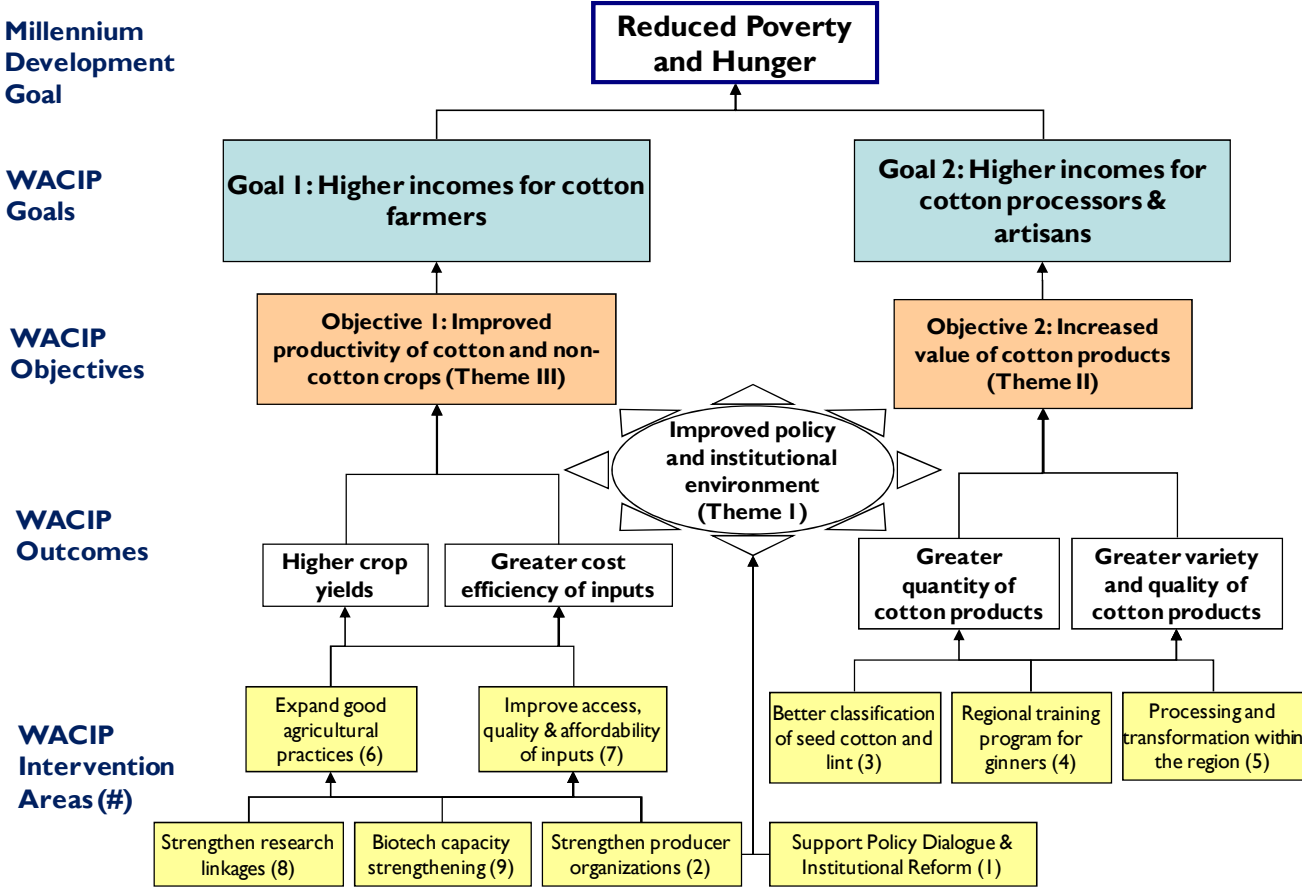
Objectives

To achieve this goal, USAID WACIP will work to achieve two project objectives:

1. Improved productivity of cotton and non-cotton crops; and
2. Increased value of cotton products.

USAID WACIP proposes to achieve the impacts set forth above in a systematic way as discussed in the text and shown graphically below:

Figure 1: USAID WACIP Impact Pathway



As shown in the diagram, the two objectives are pursued through activities across the nine intervention areas. While activities in all intervention areas will have impacts throughout the cotton value chain and across all outcomes and objectives, the arrows in the diagram depict the primary links between activities in each intervention area, and outcomes, objectives (impacts), goals and finally, the Millennium Development Goal.

III. USAID WACIP Interventions

USAID WACIP is pursuing objective 1 (Improved productivity of cotton and non-cotton crops) via two outcomes: (a) higher crop yields; and (b) greater cost efficiency of inputs, which are in turn pursued through activities across the following 5 intervention areas:

- Intervention 2: Strengthen private cotton producer organizations in business management practices in the C-4 countries.
- Intervention 6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems and improving pest management practices.
- Intervention 7: Improve access, quality and reduce costs of inputs (seeds, fertilizer and chemicals).
- Intervention 8: Improve linkages between U.S. and West African agricultural research organizations in the cotton sector.
- Intervention 9: Enhance capacity to manage the technical issues and establish bio-safety, and regulatory procedures for agricultural biotechnology, including Bt cotton.

USAID WACIP is pursuing objective 2 (Increased value of C-4 cotton products) via two outcomes: (a) greater quantity of cotton products; and (b) greater variety and quality of cotton products, which are in turn pursued through activities across the following 3 intervention areas:

- Intervention 3: Improve the quality of C-4 cotton through better classification of seed cotton and lint.
- Intervention 4: Establish a West African regional training program for ginnerers
- Intervention 5: Add value to West African cotton through processing and transformation within the region.

Finally, activities across two project intervention areas contribute explicitly to both objectives by improving the policy and institutional environment within which the other interventions operate:

- Intervention 1: Support policy and institutional reform for private management of the sector.
- Intervention 2: Strengthen private cotton producer organizations in business management practices in the C-4 countries.

IV. USAID WACIP's Relationship to USAID's Program Elements and Sub-Elements

As a USAID project, WACIP is designed to deliver on the indicators as laid out in USAID's Operation Plan. Within USAID's structure, the project reports under Area 5 of the Operational Plan: Agriculture, more specifically, Program Element 4.5.1, Agricultural Enabling Environment and Program Element 4.5.2, Agriculture Sector Productivity. These two Program Elements include several Sub-Elements, some of which relate to USAID WACIP.

Activities supporting USAID WACIP's policy and institutional environment interventions neatly map to USAID's Program Element 4.5.1, Agricultural Enabling Environment. Within this rubric, most activities relate directly either to Agricultural Resource Policy (Program Sub-Element (PSE) 5.1.1) or to Public Investment Policy (Program Sub-Element 5.1.4). USAID WACIP's investments strengthen the non-

agricultural aspects of the cotton supply chain; thereby improving market opportunities for C-4 seed cotton, also considered as contributing to the agricultural enabling environment for cotton.

Activities supporting Objective 1 (Improved productivity of cotton and non-cotton crops) neatly map to USAID's Program Element 4.5.2, Agricultural Sector Productivity.

Activities supporting Objective 2 (Increased value of C-4 cotton products) and policy and institutional environment interventions, however, are more complex and require progress in several, if not all of the above 5.2 Program Sub-Element areas before the objective is attained. These types of interventions have often led to results in more than one of the following Program Sub-Elements:

- 5.2.1: Research and Technology Dissemination
- 5.2.3: Rural and Agricultural Finance
- 5.2.4: Agribusiness and Producer Organizations

For example, increased cotton productivity may require research and dissemination of new technologies (PSE 5.2.1); developing rural financial systems to provide producers with access to credit to purchase inputs (PSE 5.2.3); and provide training for producer organizations and their members in using improved production technologies (PSE 5.2.4).

Strengthening the value chain for any agricultural product, including cotton, requires investments in the agriculture links as well as non-agricultural links especially those links that lead to greater market opportunities for the product, through transformation, quality improvements and decreased barriers to trade. For example, in order to add value to cotton, USAID WACIP assists artisan groups that produce local cloth made of cotton yarn. Such investments, consistent with the project's goals and intervention areas, are interpreted to increase the demand for more or different types of cotton fiber, and thus agricultural productivity (Program Element 5.2).

Occasionally, activities designed to meet Objective 2 (and thus Program Element 5.2) also involve sub-activities related to Program Element 5.1.

V. USAID WACIP Indicators by Level and Classification

In 2008, the USAID WACIP implementing team worked closely with USAID to formulate 37 indicators to measure the program's performance at activity, outcome and objective level. At the time of the May 2011 PMP revision, another 12 indicators were added.

- Output indicators that track program outputs such as people trained, organizations assisted, technologies adopted and policies analysed. The original 24 output indicators were increased by nine in May 2011, for a total of 33 output indicators;
- Outcome indicators, such as policy reforms adopted and changes in crop yields that track progress towards the USAID WACIP outcomes, achieved as a result of project outputs, and contributing in a clear way to project objectives. The original eight outcome indicators were increased by one in May 2011, for a total of nine outcome indicators; and
- Impact indicators that measure the degree of achievement of overall project objectives; the original five impact indicators were increased by two in May 2011, for a total of 49 impact indicators.

Most of the indicators are drawn from USAID's Operating Plan indicators for Agriculture (FACTS), as described above, and from the USAID Global Food Security Response (GFSR; formerly, the Initiative to End Hunger in Africa or IEHA). Fifteen were designed by IFDC to capture results from activities related to the transformation and sale of cotton by ginning companies and artisans, the nuances of the different kinds of project trainings, as well as compliance with USAID environmental proscriptions. They are classified under three categories: Agriculture Enabling Environment, Agricultural Sector Productivity and "Custom" indicators, where the Custom category includes certain GFSR indicators refined to apply to cotton context. The three tables below show the 49 USAID WACIP indicators, indicators at each level, and for each indicator, indicate which category they belong to and whether they are equivalent with GFSR

indicators. The first table shows those indicators that track progress on objective 1 (improved productivity of cotton and non-cotton crops), the second table indicators that track progress on objective 2 (increased value of cotton products), and the third, indicators that track progress on both objectives.

Table 1: Indicators for Objective 1: Improved Productivity of Cotton and Non-cotton crops

Level	Indicator	Indicator Number		
		FACTS	GFSR	USAID WACIP
Impact	Percent change in gross margin for seed cotton for targeted farmers		IR 1	1
	Percent change in gross margin for maize for targeted farmers		IR 1	2
	Percent change in gross margin for cowpea for targeted farmers		IR 1	3
	Gain in net revenues for farmers trained in good agricultural practices*			38
Outcome	Percent change in yield of seed cotton for targeted farmers		IR 1	6
	Percent change in yield of maize for targeted farmers		IR 1	7
	Percent change in yield of cowpea for targeted farmers		IR 1	8
Output	Number of new technologies or management practices under field testing as a result of USG assistance	4.5.2 Ag. Productivity	Y	14
	Number of new technologies or management practices made available for transfer as a result of USG assistance	4.5.2 Ag. Productivity	Y	15
	Number of farmers who have adopted new technologies or management practices as a result of USG assistance	4.5.2 Ag. Productivity	IR 1.1	16
	Number of additional hectares brought under improved technologies or management practices as a result of USG assistance	4.5.2 Ag. Productivity	IR 1.1	17
	Number of extension agents receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance			18
	Number of demonstration plots featuring EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance			19
	Number of farmers receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance			20

*Indicator added in 2011

Table 2: Indicators for Objective 2: Increased Value of Cotton Products

Level	Indicator	Indicator Number		
		FACTS	GFSR	WACIP
Impact	Value of total trade in artisanal cotton products for targeted artisans		IR 3.1	4
	Value of total trade in cotton lint for targeted processors		IR 3.1	5
	Gain in net revenues for targeted ginning firms as result of USG investments*			39
Outcome	Volume of organic seed cotton processed using USAID WACIP-supported new processing techniques		IR 1.1	9
	Volume of non-contaminated seed cotton processed using USG-supported new processing techniques*			40
	Volume of conventional seed cotton processed using USAID WACIP-supported new processing techniques		IR 1.1	10
	Number of new cotton products marketed by targeted artisans			11
Output	Number of processors using new techniques		IR 1.1	21

*Indicator added in 2011

Table 3: Indicators of Progress for Both Objectives 1 and 2

Level	Indicator	Indicator Number		
		FACTS	GFSR	USAID WACIP
Outcome	Number of institutions /organizations making significant improvements based on recommendations made via USG- supported assessment	4.5.1 Ag. Enabling Env.	IR 1.2	12
	Number of policy reforms adopted as a result of USG assistance	4.5.1 Ag. Enabling Env.	IR 2	13
Output	Number of policy reforms analyzed as a result of USG assistance	4.5.1 Ag. Enabling Env.	IR 2	22
	Number of policy reforms presented for public/stakeholder review as a result of USG assistance	4.5.1 Ag. Enabling Env.	IR 2	23
	Number of analytical studies of policies and/or institutions completed as a result of USG assistance	4.5.2 Ag. Productivity	Y	24
	Number of analytical studies of policies and/or institutions disseminated as a result of USG assistance	4.5.1 Ag. Enabling Env.		25
	Number of institutions /organizations undergoing capacity/competency assessments as a result of USG assistance	4.5.1 Ag. Enabling Env.	IR 1.2	26
	Number of persons (total) who have received USG supported short-term agricultural sector training*			41
	Number of males who have received USG supported short-term agricultural sector productivity training	4.5.2 Ag. Productivity	Y	28
	Number of males who have received USG supported short-term agricultural sector productivity training: Direct*			42
	Number of males who have received USG supported short-term agricultural sector productivity training: Indirect*			43
	Number of females who have received USG supported short-term agricultural sector productivity training	4.5.2 Ag. Productivity	Y	27
	Number of females who have received USG supported short-term agricultural sector productivity training: Direct*			44
	Number of females who have received USG supported short-term agricultural sector productivity training: Indirect*			45
	Number of males who have received USG supported short-term agricultural enabling environment training	4.5.1 Ag. Enabling Env.	Y	30
	Number of males who have received USG supported short-term agricultural enabling environment training: Direct*			46
	Number of males who have received USG supported short-term agricultural enabling environment training: Indirect*			47
	Number of females who have received USG supported short-term agricultural enabling environment training	4.5.1 Ag. Enabling Env.	Y	29
	Number of females who have received USG supported short-term agricultural enabling environment training: Direct*			48
	Number of females who have received USG supported short-term agricultural enabling environment training: Indirect*			49

Level	Indicator	Indicator Number		
		FACTS	GFSR	USAID WACIP
	Number of rural households benefiting directly from USG interventions	4.5.2 Ag. Productivity	Y	31
	Number of vulnerable households benefiting directly from USG interventions	4.5.2 Ag. Productivity	Y	32
	Number of producers' organizations, water users associations, trade and business associations, and community-based organizations (CBOs) assisted as a result of USG interventions	4.5.2 Ag. Productivity		33
	Number of women's organizations/associations assisted as a result of USG interventions	4.5.2 Ag. Productivity		34
	Number of agriculture-related firms benefitting directly from interventions as a result of USG assistance	4.5.2 Ag. Productivity		35
	Number of public-private partnerships formed as a result of USG assistance	4.5.2 Ag. Productivity		36
	Number of Partner Organizations	4.5.2 Ag. Productivity		37

*Indicator added in 2011

VI. USAID WACIP Indicators and Targets

In this section, the indicators above are defined more precisely, and in cases where the baseline is not zero, the formulas used to measure changes are explained. Most of the indicators listed in the previous section start at a baseline of zero, at the beginning of the project. All data collected pertaining to these indicators will be disaggregated by target country, and where appropriate, by gender. Annual targets for each of these indicators are presented in Annex I.

A. Impact Indicators

Indicator 1: Percent change in gross margin for seed cotton for targeted farmers

Gross margin (GM) per hectare or per animal for targeted commodities is a measure of net income for that farm activity in this case for seed cotton. USAID WACIP calculates gross margins following the GFSR approach using the following data for the cotton seed production of *a representative sample of* targeted farmers and their seed cotton production:

- Number of targeted farmers;
- Area of production (in hectares);
- Production (in Mt);
- Quantity sold (in Mt). In the case of cotton, this figure will come from the cotton producer association records for the participating farmer;
- Value of sales (in FCFA);
- Cost of purchased inputs (in FCFA), for the significant inputs where costs can be easily ascertained. These are likely to be the cash costs. To conserve on data collection resources, only those input costs estimated to be at least 5% of the total input cost should be included. The most likely items are purchased seed, feed, fertilizer, pesticides, hired labor, and hired machine/veterinary services.

Target population:

The sample methodology is developed and described by the project's implementing partner in each country, each of which has the national mandate for collecting cotton-related production data. These methods are evaluated by project economists to ensure they follow international norms for statistical significance. The data collected for a representative sample of targeted

farmers is extrapolated to the total population of targeted farmers (which, while large, is not equal to, nor representative of the entire population of cotton farmers.

GM are computed only for those farmers who received the full USAID WACIP intervention package, including direct training on environmental risk mitigation. This is the population of farmers counted under Indicator 20 (see below). Different targets are set for farmers receiving one year of intervention versus those receiving two or more years of intervention; when there is a mix of farmers in the same country who have received varying number of years of training, GM are computed using a sample of those farmers who have received at least two years of training.

Economic data:

In order to isolate the impacts of the intervention package (which consists of having farmers adopt the good agricultural practices demonstrated by the extension services) the value of all inputs and outputs is computed using normalized prices.

Because of rapidly changing exchange rates, computations are made in the local currency (FCFA) and final gross margins are converted to US dollars at the rate of 450 FCFA/USD for purposes of reporting to USAID.

Formula:

The formula used to determine gross margin of seed cotton for targeted farmers is as follows:

$$\text{GM} = \frac{[(\text{Total Value Sales} / \text{Total Quantity Sold}) \times \text{Production}] - \text{Total Cost of Inputs}}{\text{Area}}$$

Once gross margin for seed cotton is calculated for a given year, the percentage change between periods (years) as follows:

$$\% \text{ Change in GM for year } n = \frac{(\text{GM year } n - \text{GM baseline}) \times 100}{\text{GM year } n}$$

Reporting: GM results for the May-December growing and harvesting season (e.g., May 2008-December 2008) are reported in December of the relevant fiscal year (e.g., FY 2009).

Baseline:

The baseline for this indicator is defined as the average, taken from the sample survey, of the three years before the intervention took place: typically the 2005/2006, 2006/2007 and 2007/2008 growing seasons (except in Chad where the farm-level interventions commenced in 2011). A baseline of three years is used to limit errors due to poor recall.

Indicator 2: Percent change in gross margin for maize for targeted farmers

USAID WACIP will follow the GFSR system described for Indicator 1, using the data for maize.

Indicator 3: Percent change in gross margin for cowpea for targeted farmers. USAID WACIP will follow the GFSR system described for Indicator 1, using the data for cowpeas.

Indicator 4: Value of total trade in artisanal cotton products for targeted artisans. “Artisanal cotton products” include all cotton-based products made by USAID WACIP-trained and -supported artisans using processing techniques applied as a result of project support (see indicator 8 below for a definition of project-supported processing techniques). Where the product of one project-supported processor is known to provide the input for another project-supported processor (e.g., project supported ginners providing ginned cotton for artisanal weaving), the value of that input will be subtracted from the total (to prevent double counting). The data will be aggregated across different types of artisanal cotton products using the sum of the monetary values of sales.

For the purposes of this indicator, “total trade” refers to the sum of:

- **Domestic Trade (DT):** Sales of cotton products made by project-trained and -supported artisans to buyers in domestic markets;
- **Intra-regional Trade (RT):** Sales of cotton products made by project-trained and -supported artisans to buyers in markets abroad, but within West and Central Africa;
- **International Trade (IT):** Sales of cotton products made by project-trained and -supported artisans to buyers in markets outside of West and Central Africa.

The formula used to determine the value of total trade is as follows:

$$\text{Total Trade (TT)} = \text{DT} + \text{RT} + \text{IT}$$

Because of rapidly changing exchange rates, value will be recorded in the local currency (FCFA), and the final values converted to US dollars at a rate of 450 FCFA/USD for purposes of reporting to USAID.
Baseline: 0.

Indicator 5: Value of total trade in cotton lint for targeted processors. “Cotton lint by selected processors” is the lint produced by project-supported ginning companies using processing techniques improved by project trainings, technical assistance or project-supported equipment purchases (see indicator 8 below for a definition of project-supported processing techniques). The measure is gross (e.g. does not adjust for input costs); however, where the product of one project-supported processor is known to provide the input for another project-supported processor (e.g. project supported ginners providing ginned cotton for artisanal weaving), the value of that input will be subtracted from the total (to prevent double counting).

Because of rapidly changing exchange rates, value will be recorded in the local currency (FCFA), and the final values converted to US dollars at a rate of 450 FCFA/USD for purposes of reporting to USAID.
Baseline: 0.

B. Outcome Indicators

Indicator 6: Percent Change in Yield of seed cotton for targeted farmers. Yield of seed cotton is a measure of the physical productivity of the farming system. USAID WACIP calculates yield using the following data for the cotton seed production of targeted farmers and their seed cotton production:

- Area of production (in hectares);
- Production (in Mt).

Formula:

The formula used to determine gross margin of seed cotton for targeted farmers is as follows:

$$\text{Yield} = \frac{\text{Total Production (Measured in Mt)}}{\text{Area (Measured in Ha)}}$$

Once yield for seed cotton is calculated, percentage change will be calculated. This will be done annually as follows, once harvesting is complete and all data have been collected:

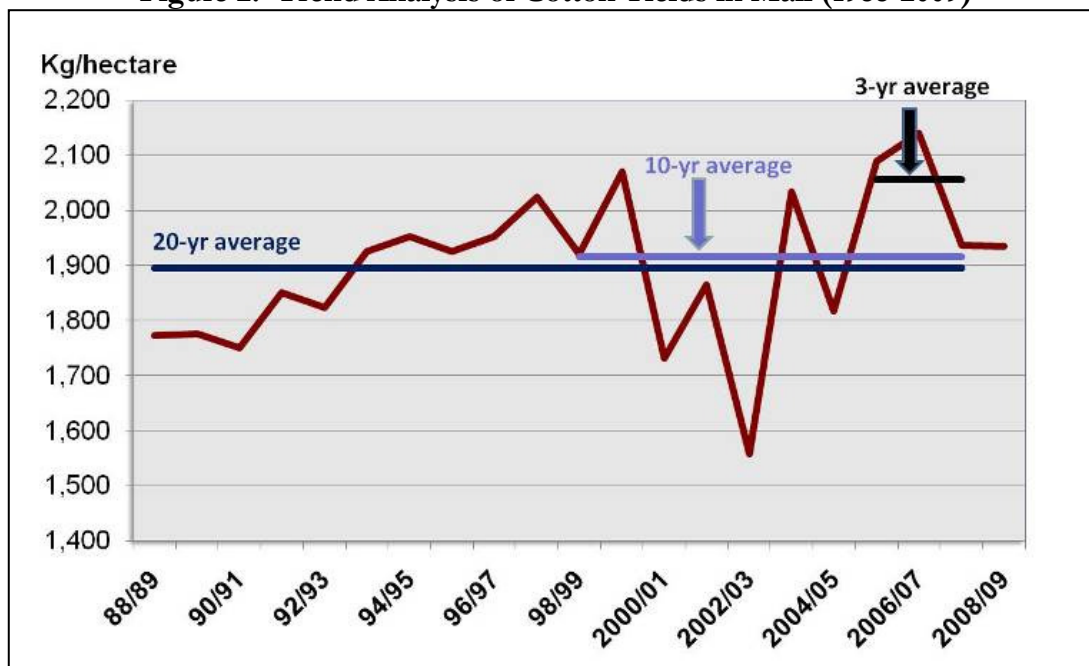
$$\% \text{ Change in Yield for year } n = \frac{(\text{Yield year } n - \text{Yield baseline}) \times 100}{\text{Yield year } n}$$

Baseline:

As in the case of gross margin data (see indicator 1 above), the baseline for this indicator is defined as the average, taken from the sample survey, of the three years before the intervention took place: typically the 2005/2006, 2006/2007 and 2007/2008 growing seasons (except in Chad where the farm-level interventions commenced in 2011).

A period of three years is used to limit data errors due to poor recall. However, under certain conditions, using the most recent three years before the intervention distorts the interpretation of results. Figure 2 illustrates the case where there is a high level of variability around the long-run yields for maize in Burkina Faso. The recent 3-year average is high relative to both the 10- and 20-year trends. In 2008/09, national yields fell precipitously back to their long run average. Against this underlying dynamic, driven by factors such as rainfall and policies, success for the project would be to increase yields *relative to where they would have been in the absence of the intervention*. In this case, the long-average trend appears to provide a more robust baseline than the short-term average.

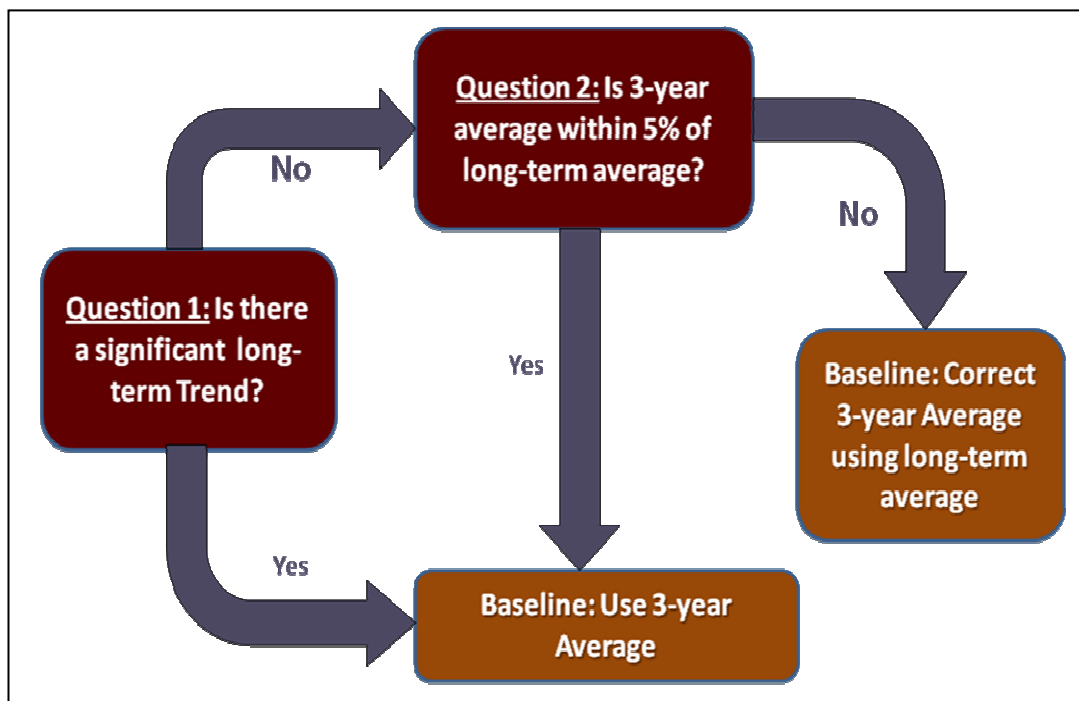
Figure 2: Trend Analysis of Cotton Yields in Mali (1988-2009)



When this discrepancy is large, a correction factor is applied using data from other years – in essence, pushing the data from those three years towards the long-term mean.¹ The long-term and three-year averages are considered to be similar if their difference is less than 5%. The long-term trend and three-year averages are considered to be significantly different where the coefficient of determination of the long-term trend line (R-squared) > 5%. In that latter case, as shown in Figure 3, a correction factor, computed as the 20-year average yield divided by the three-year average yield, is applied to the three-year average.

¹ Strictly speaking, one could apply time series estimations to a long term series to predict future values and then compare project outcomes to the predicted values, but such statistical adjustments would fall outside the scope of the current USAID guidance for evaluating changes in yields.

Figure 3: Decision Schema for Dealing with Trends in Baseline Yields Data



Applying these criteria to yields data for each crop and country of intervention gives the correction factors shown in Table 4. (The correction factors for Chad will be computed in the same manner once the baseline data are collected in August 2011).

Table 4: Correction Factors for Yields Data in Benin, Burkina Faso and Mali

Crop	Country	LT Trend?*	3-yr Avg = LT Avg?*	Need to correct Baseline?	Correction Factor
Cotton	Benin	No	Yes		
Cotton	Burkina Faso	No	No	Yes	87.6%
Cotton	Mali	Yes	No		
Maize	Benin	No	No	Yes	90.7%
Maize	Burkina Faso	No	No	Yes	94.0%
Maize	Mali	No	No	Yes	90.3%
Cowpea	Benin	Yes	No		
Cowpea	Burkina Faso	No	Yes		
Cowpea	Mali	?***	?***		

* Definition of trend: R-squared for long-term (LT) trend line > 0.5

** Difference in averages considered to be significant if R-squared > 5%

*** Not enough data to determine: default baseline = 3-year average.

Indicator 7: Percent Change in Yield of maize for targeted farmers. USAID WACIP will follow the system described for Indicator 6 to collect baseline and actual data, using the data for maize, rather than seed cotton.

Indicator 8: Percent Change in Yield of cowpea for targeted farmers. USAID WACIP will follow the system described for Indicator 6 to collect baseline and actual data, using the data for cowpea, rather than seed cotton.

Indicator 9: Volume of organic seed cotton processed using USAID WACIP-supported new processing techniques. “Processed” refers to any cotton processing activity undertaken by project beneficiaries, including ginning, classing, and spinning. “USAID WACIP-supported new processing techniques” are methods not previously used by project beneficiary processors, whose adoption is facilitated directly by USAID WACIP. “Organic cotton” refers to cotton products marketed in final form as “Organic” (e.g., thus certified). Volume is measured as the volume of seed cotton consumed during processing and is measured in metric tons. Where the final product is in the form of cotton fiber or textile, the volume will be estimated based on its seed cotton equivalent weight.. Baseline: 0

Indicator 10: Volume of conventional seed cotton processed using USAID WACIP-supported new processing techniques. As with volume of organic seed cotton (indicator 9 above), “Processed” refers to any cotton processing activity undertaken by USAID WACIP beneficiaries, including ginning, classing, and spinning. “USAID WACIP-supported new processing techniques” are methods not previously used by USAID WACIP beneficiary processors, but imparted at formal USAID WACIP training programs and applied. “Conventional cotton” refers to all cotton products **not** marketed in final form as “Organic.” In the context of the project, it may include cotton grown from genetically-modified seeds or cotton that has been scrupulously harvested to avoid contamination by foreign matter. (The latter is tracked in Indicator 40, below). Volume is measured as the volume of seed cotton consumed during processing and is measured in metric tons. Where the final product is in the form of cotton fiber or textile, the volume will be estimated based on its seed cotton equivalent weight. Baseline: 0

Indicator 11: Number of new cotton products marketed by targeted artisans. “New cotton products” refers to cotton products not previously produced by USAID WACIP beneficiaries, but developed as part of formal project activities and/or training programs and marketed. Each product is unique, and counted only once it has been marketed (i.e., there is no double counting of the same product

type sold in multiple years). “Marketed” refers to products for which samples have been produced and which have been made available for sale, at formal or informal markets. Baseline: 0

Indicator 12: Number of institutions/organizations making significant improvements based on recommendations made via USG-supported assessment. “Making significant improvements” refers to an improvement of over 5% over baseline in the score on the assessment referred to in Indicator 26 below. Baseline: 0

Indicator 13: Number of policy reforms adopted as a result of USG assistance. “Adopted” refers to the formal acceptance of a policy or regulation by the party responsible for overseeing implementation of that policy (e.g. parliament, President, CEO). Policies are not restricted to governmental or public policy; they may include corporate policy change. “Policy Reforms Adopted” is the fourth of five GFSR policy milestones. Baseline: 0

C. Output Indicators

Indicator 14: Number of new technologies or management practices under field testing as a result of USG assistance. The indicator includes technologies, management practices, or products under research/development in laboratory settings, experimentation sites/plots, and other experimental settings. Examples in the USAID WACIP context include primarily agricultural technologies, such as new soil fertility and pest management practices. A technology or management practice can be termed as “new” if it has not previously been in use in the target area. Because of the nature of USAID WACIP’s research endeavors, all research conducted by project-supported researchers is considered conducted at the “field testing” stage. Thus, the “number of new technologies or management practices under field testing as a result of USG assistance” is equivalent to the “number of new technologies or management practices under research as a result of USG assistance.” This aligns the FACTS and GFSR definitions. USAID WACIP also defines technologies with reference to the results of the USAID WACIP Environmental Assessment (EA), which promotes: Good Agriculture Practices (GAP), Integrated Pest Management (IPM), Integrated Soil Fertility Management (ISFM), Genetically Modified Cotton (Bt), Organic Cotton (OC, where the package includes adequate soil enhancement) and Personal Protection Equipment (PPE) methodologies for mitigating risks from pests and pesticides. Likewise, the EA prohibits the use of certain technologies (e.g., *Lutte étagée ciblée* or LEC) and numerous chemical products. (See the full list in Annex II). USAID WACIP will ensure that all technologies counted under this indicator are consistent with the results of the EA. Baseline: 0

Indicator 15: Number of new technologies or management practices made available for transfer as a result of USG assistance. For the purposes of this indicator, “made available” refers to a situation where: 1) research on the new technology has proven benefits; 2) the new technology has been approved by the appropriate technical institutions responsible for authorizing its use; 3) technical extension services are capable of providing extension services pertaining to the new technology (“capable” here, means having a complete enough understanding of the technical requirements of the technology to be able to impart that knowledge, not the resources required to disseminate the technology); and 4) any policy(ies) authorizing the use of the new technology have been adopted by the host government. In the realm of agriculture, the measure therefore includes those technologies released by research organizations for uptake by extension services, and by the extension services for uptake by farmers. As in the case of Indicator 14 above, USAID WACIP will ensure that all technologies counted under this indicator are consistent with the results of the EA. Baseline: 0

Indicator 16: Number of farmers who have adopted new technologies or management practices as a result of USG assistance. This indicator refers to the number of farmers who are applying at least one new technology (see Indicator 14 above for definition for new technology) on some part of or their entire farm during the course of the year as a result of USAID WACIP support. It includes heads of farm units and the other cotton farmers within those units. “USAID WACIP support” includes any activities funded by the project that encourage the adoption of new technologies (e.g., training or demonstrations). As in

the case of Indicator 14 above, USAID WACIP will ensure that all technologies counted under this indicator are consistent with the results of the EA. Baseline: 0

Indicator 17: Number of additional hectares brought under improved technologies or management practices as a result of USG assistance. This indicator refers to the number of hectares where improved technologies and/or management practices are being employed, including inputs, management practices, tenure arrangements, and administrative systems. The indicator tracks successful adoption of technologies and management practices to improve agricultural productivity. Technologies adopted by farmers via standard input “packages” disseminated under established institutional relationships (e.g. out grower schemes) are included. These are the areas associated with the farmers identified in Indicator 16. Baseline: 0

Indicator 18: Number of extension agents receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance. This is the first of three indicators included specifically to track the project’s progress on environmental risk mitigation, as reflected in the USAID WACIP EA and described in Indicator 14, above. “Short-term training” refers to trainings totaling no fewer than eight hours and no more than 6 months in duration. Trainings in the C-4, in the sub-region, or internationally are included. Knowledge or skills gained through technical assistance activities and visits to demonstration or experimentation sites are also included. If the activity provided training to trainers, and if the reporting unit can make a credible estimate of follow-on training provided by those trainers, these estimates will be included. Individuals attending more than one training course will be counted as many times as they attend different courses. Training may take place at individual day sessions, multi-day workshops or through a series of inter-related trainings or workshops. In order to be counted among individuals that have received short term training, the person must have attended at least 80% of the training in question. Baseline: 0

Indicator 19: Number of demonstration plots featuring EA-compliant technologies for mitigating risks from pests and pesticides, as a result of USG assistance. This is the second of three indicators included specifically to track the project’s progress on environmental risk mitigation, as reflected in the USAID WACIP EA. In the case where USAID WACIP supports the training of farmers in improved agricultural practices, project partners will install demonstration plots; for such plots to be EA-compliant, they must feature at least one of the EA-compliant technologies noted in Indicator 14 and must avoid all of the technologies and chemicals discouraged in the EA (included in Annex II). This indicator expresses the number of these plots. Baseline: 0

Indicator 20: Number of farmers receiving training in EA-compliant technologies for mitigating risks from pests and pesticides, as a result of USG assistance. This is the third of three indicators included specifically to track USAID WACIP progress on environmental risk mitigation, as reflected in the USAID WACIP EA. This indicator is equivalent to the number of heads of farm units directly trained by project-supported extension agents in the EA-compliant methods listed in Indicator 14. Baseline: 0

Indicator 21: Number of processors who have adopted new techniques. This indicator refers to the number of processors who are applying at least one new processing technique, as defined for indicator 9 and 10 above, during the course of the year as a result of USAID WACIP support. Typically, this refers to ginners and artisans who alter the way they add value to cotton. Baseline: 0

Indicator 22: Number of policy reforms analyzed as a result of USG assistance. “Analyzed” refers to a formal written analysis of a policy by the USAID WACIP team, consultants, or sub-recipients. An analysis may, but does not necessarily, include discussions held with groups of stakeholders during meetings, workshops, or trainings (such as the results of break-out groups). Any analysis must entail a thorough review of directly relevant and available documentation pertaining to the policy in question. “Policy Reforms Analyzed” is the first of five GFSR policy milestones. Baseline: 0

Indicator 23: Number of policy reforms presented for public/stakeholder review as a result of USG assistance. This indicator tracks policy progress after the “analysis” stage (Indicator 22). “Presented for public/stakeholder review” refers to policy reforms which are formally presented before a representative group of stakeholders. Reforms must aim to improve the policy or institutional environment in favor of a competitive, profitable cotton sector. The presentation may take place within the context of a formal meeting, workshop, seminar, conference or any other such public fora sponsored by USAID WACIP or by any other partner. The presentation must entail a background on the policy reforms under consideration, a summary of findings noted during the policy analysis and a description of the proposed or recommended changes to be made. There must be a written output of the presentation indicating the response of the stakeholders. “Policy Reforms presented for public/stakeholder review” is the third of five GFSR policy milestones. Baseline: 0

Indicator 24: Number of analytical studies of policies and/or institutions completed as a result of USG assistance. “Analytical studies of policies and/or institutions” refers to three categories of study: (a) Reports resulting from formal analysis of specific policy issues; (b) Reports resulting from formal analysis of specific analytical issues; and (c) Reports resulting from formal assessments of key institutional partners. “Completed” refers to situations where both of the following are true: (a) the analytical study is produced by USAID WACIP or as a result of specific USAID WACIP assistance; and (b) the final product has been received and approved by project staff. Baseline: 0

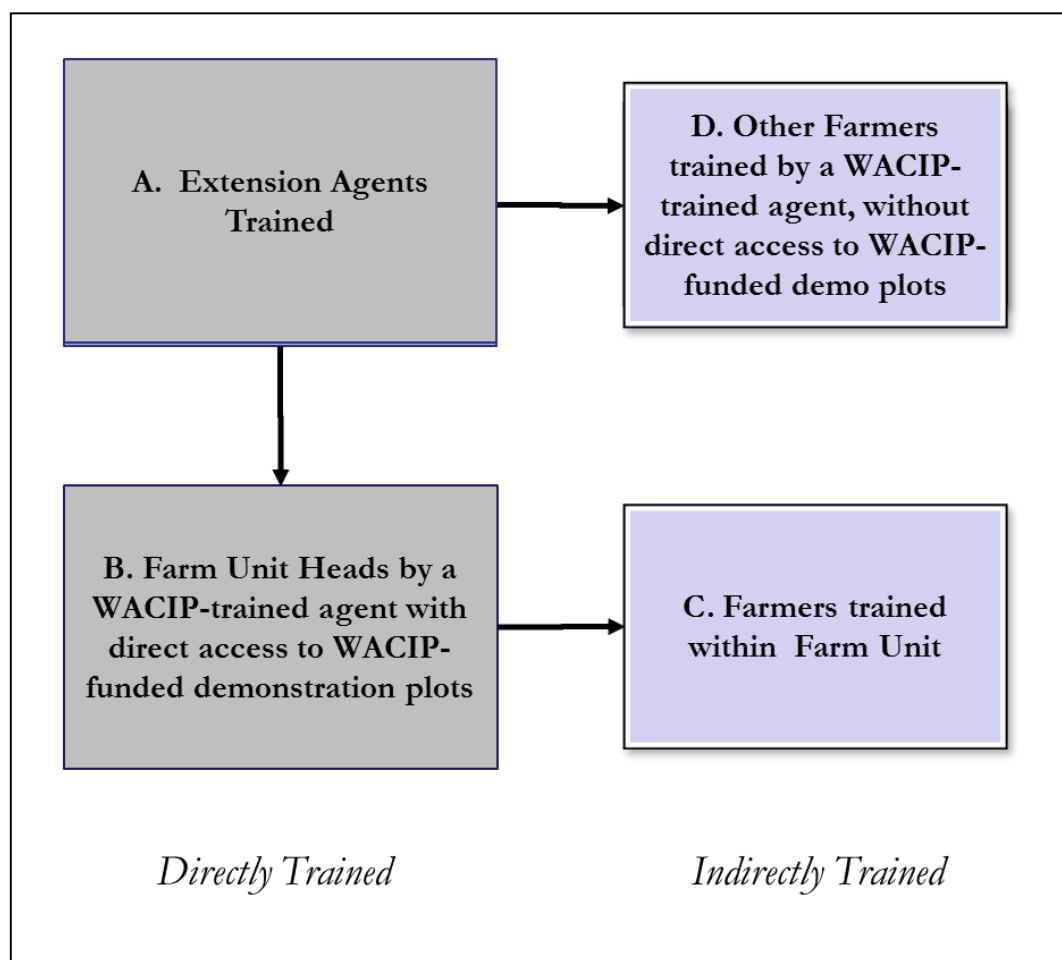
Indicator 25: Number of analytical studies of policies and/or institutions disseminated as a result of USG assistance. “Analytical studies of policies and/or institutions” refers to three categories of study: (a) Reports resulting from formal analysis of specific policy issues; (b) Reports resulting from formal analysis of specific analytical issues; and (c) Reports resulting from formal assessments of key institutional partners. “Disseminated” refers to the final product having been made available to cotton stakeholders as a result of USAID WACIP support. Baseline: 0

Indicator 26: Number of institutions/organizations undergoing capacity/competency assessments as a result of USG assistance. “Undergoing capacity/competency assessments” refers to the application of assessments specifically designed by the project implementing team, its consultants or its grantees to measure competency in at least one of the following systems: i) governance; ii) operations and management; iii) human resources development; iv) financial management; v) program and service delivery; or vi) external relations and advocacy. Assessments will identify recommendations for capacity/competency building within the institution/organization assessed. Baseline: 0

Indicator 27: Number of males who have received USG supported short term agricultural sector productivity training, and Indicator 28: Number of females who have received USG supported short term agricultural sector productivity training

This indicator refers to the number of male (#27) or female (#28) individuals to whom significant knowledge or skills have been imparted through formal or informal means. “Short-term training” refers to trainings totaling no fewer than 8 hours and no more than 6 months in duration. “Agricultural Sector Productivity” will be defined as all trainings directly targeting the farming activities of producers. In-country and off-shore training are included. Knowledge or skills gained through technical assistance activities and visits to demonstration or experimentation sites are also included. If the activity provided training to trainers, and if the reporting unit can make a credible estimate of follow-on training provided by those trainers, this estimate will be included. Individuals attending more than one training course will be counted as many times as they attend different courses. Training may take place at individual day sessions, multi-day workshops or through a series of inter-related trainings or workshops. In order to be counted among individuals that have received short term training, the person must have attended at least 80% of the training in question. Farmers operating on farms participating in USAID WACIP’s agricultural extension program for an entire planting season will be included (for these farmers, actual data will be extrapolated from representative sample data received from project partners).

Figure 4: Extension Agent and Farmer Trainings



The project includes the following trainees under Indicators 27 and 28:

1. Trainees in good agricultural practices. There are several categories of trainees (Figure 4).
 - A. Extension agents trained by the project. Their presence is established through signed lists at training workshops. They are considered directly trained.
 - B. Heads of Cotton Farming Units. The agents (A) in turn intensively train a certain number (generally between 100 and 130) of cotton farmers using the full USAID WACIP package of practical training, demonstration fields and close follow up with home- or cooperative-based visits. These lists of directly trained cotton farmers are signed and gathered at training workshops. They are known as *Chef d'exploitation* in French.
 - C. Farmers within the Cotton Farming Unit. The Heads of Cotton Farming Units (B), having received the USAID WACIP package, ensure that the knowledge imparted by the agent is in turn transferred to the adult farmers within their cotton farming unit (C). As there are on average a minimum of five such farmers (called *actifs* in French) for each farm unit, and the project trained approximately 75,000 farm units in 2009 alone, it would prove impractical to document all these cotton farmers in the farming unit. Thus, the number of such individuals is imputed using national means for *actifs* in cotton-growing farm units, and if that level of specificity is not available, and then the project uses the average for all types' farm units (e.g., all crops combined). These farmers are considered indirectly trained as they do not come into direct contact with the extension agent trainer.
 - D. Other farmers. The agents also train the rest of their case load, the heads of cotton farming units who benefit from the agent's improved knowledge but not necessarily the full package described above. These figures are determined by subtracting the number of documented USAID WACIP trained farmers from the agent's case load. These farmers are considered indirectly trained as they do not benefit from the full package.

Note that when the training period for a given cropping year extends across USG fiscal years, the results are only attributed to the first of the two fiscal years. Note that a farmer receiving multiple trainings in “good agricultural practices” in a given season is only counted once, even though there are many separate sessions with differing themes. If, however, that same farmer is involved in a different USAID WACIP-funded training activity, perhaps in debt management, s/he is counted again.

2. Trainees or participants in workshops related to agricultural research. These are considered directly trained (in Indicator 42 for men and 44 for women). Baseline: 0

Indicator 29: Number of males who have received USG supported short-term agricultural enabling environment training, and Indicator 30: Number of females who have received USG supported short-term agricultural enabling environment training. “Short-term training” refers to any formal or informal training totaling no fewer than eight hours and no more than six months in duration. “Agricultural Enabling Environment” will be defined as all trainings other than those directly targeting the farming activities of producers. In-country and off-shore training are included. Knowledge or skills gained through technical assistance as well as technical workshops and conferences, are included. In the case of training of trainers, a credible estimate of follow-on training provided by the trainers can also be included. Individuals attending more than one training course will be counted as many times as they attend different courses. Training may take place at individual day sessions, multi-day workshops or through a series of inter-related trainings or workshops such as study tours. In order to be counted as a short term trainee, the person must have attended at least 80% of the training in question. Data and results pertaining to this indicator will be disaggregated by country and gender of the individual trained and the general training topic.

The project includes the following types of training under Indicators 29 and 30:

1. Biotechnology and biosafety workshops and trainings;
 2. Policy workshops on price setting mechanisms;
 3. Ginner trainings;
 4. Inputs management workshops and meetings;
 5. Information management trainings for agricultural researchers;
 6. Artisanal trainings in business development and new product development. In this instance, the head of the enterprise trained by a formal trainer is considered a direct trainee, whereas the members of the enterprise are considered to be an indirect trainee by the head of the enterprise.
- Baseline: 0

Indicator 31: Number of rural households benefiting directly from USG interventions. A household is a beneficiary if it contains at least one individual who is a beneficiary. An individual is a beneficiary if s/he is engaged with a project activity and has already benefited from any project activity or it is highly likely that s/he will benefit from any project activity due to his/her significant level of engagement with the project. Beneficiaries do not include those merely contacted or touched by an activity through brief attendance, for example, at a meeting or gathering. The definition of “rural” corresponds to the definition used by the respective national statistical service in each project targeted country. Beneficiaries include people who receive training. USAID requires the implementing organization to demonstrate that assistance was provided to its members by making sure to distinguish between activities with small producer groups and trade associations, which are likely to benefit all members, versus those with apex association, which are unlikely to truly reach the thousands of members. Baseline: 0

Indicator 32: Number of vulnerable households benefiting directly from USG interventions

A household is a beneficiary if it contains at least one individual who is a beneficiary. An individual is a beneficiary if s/he is engaged with a project activity and has already benefited from any project activity or it is highly likely that s/he will benefit from any project activity due to his/her significant level of engagement with the project. Beneficiaries do not include those merely contacted or touched by an activity through brief attendance, for example, at a meeting or gathering. For the purposes of this indicator, the number of vulnerable households will be calculated as the share of the number of rural

households benefiting directly from USG interventions (Indicator 31 above). The percentage used will be an estimate of the percentage of the rural population that are considered to be poor, as defined by the respective national statistical service in each project targeted country. Baseline: 0

Indicator 33: Number of producers' organizations, water users associations, trade and business associations, and community-based organizations (CBO) assisted as a result of USG interventions.

“Organizations (and others) assisted” are those that are engaged with a project activity and have either already benefited from an activity or have a high likelihood of benefiting from an activity due to their significant level of engagement with the project. The category “Organizations (and others) assisted” does not include those merely contacted or touched by an activity through brief attendance at a meeting or gathering by one or more employees/members. The nature of the assistance by USAID WACIP must be more substantial and backed up by a written explanation of why those included in their estimate of beneficiaries should be counted as such. USAID WACIP distinguishes between organizations “assisted” (Indicator 33) and organizations “making significant improvements” (Indicator 12); in the latter case, the burden of proof is on USAID WACIP to show that the assistance led to documented change in the organization’s capacity. Organizations whose primary purpose is to serve women are not included, because they are counted in a separate indicator. Even if an organization receives multiple types of assistance in the same year, it will only be counted one time. In some cases, producer associations or other organizations operate firms. In these cases both entities could be counted (under organizations assisted and under firms assisted) if both the organization and the firm receive appropriate (presumably different) types of assistance. In cases where an organizational hierarchy exists (e.g. village, sector, regional and national/apex level producer organizations), organizations at each level will only be counted if they have received direct assistance. Baseline: 0

Indicator 34: Number of women's organizations/associations assisted as a result of USG interventions.

This indicator follows the logic of Indicator 33, but includes only those organizations whose primary purpose is to serve women. In some cases men will be members of these organizations; this would not prevent counting the organization, as long as the primary intended beneficiaries of the organization are women. Where a women’s producer associations or other women’s organizations operates a firm, both entities could be counted (under women’s organizations assisted and under firms assisted) if both the women’s organization and the firm receive appropriate (presumably different) types of assistance. Baseline: 0

Indicator 35: Number of agriculture-related firms benefiting directly from interventions as a result of USG assistance.

An agricultural firm (or enterprise) is a beneficiary if it is engaged in a project activity and either has already benefited or has a high likelihood of benefiting from activities due to its significant level of engagement with the project. A firm is any entity participating in a project activity and that is benefiting and making improvements in the cotton sector as a result of the project. Parastatals that function as distinct enterprises are included. A firm is an organization that is not part of a producer organization or association. Benefiting firms do not include those merely contacted or touched by an activity, for example, through brief attendance at a meeting or gathering. Benefiting firms include those whose employees receive training, equipment, or access to other kinds of physical, electronic, financial, or human resources. Even if a firm receives multiple types of assistance in the same year, it will only be counted one time. Baseline: 0

Indicator 36: Number of public-private partnerships formed as a result of USG assistance

Public entities include the USG, developed country governments, multilateral development institutions, national governments of developing countries, and universities or other arms of national governments. For-profit enterprises and non-governments organizations (NGOs) are considered private. A partnership is “formed” when there is a clear, written agreement, to work together to achieve a common objective, including specification of the contributions of the parties involved. A public-private partnership (PPP) must include at least one public and at least one private party. There must be either a cash or in-kind significant contribution to the effort by both the public and the private entity. The contribution of an entity to the PPP is considered significant if at least one of the following is true: (a) the participation of the entity is essential to the achievement of the objective of the PPP; and (b) the contribution of the entity is

at least 5% of the sum of all contributions of all partners. An operating unit or an implementing mechanism may form more than one partnership with the same entity, but this is likely to be rare. Baseline: 0

Indicator 37: Number of partner organizations and active institutional members of those partner organizations. This indicator is taken from GFSR; it measures USAID WACIP's reach within the C-4 countries. "Partner organizations and active institutional members" may span several levels, from regional to sub-national. GFSR recognizes that organizations often have several tiers and allows counting of the apex as well as all the members. For example, USAID WACIP could count the apex national union of cotton producers in Mali, and count the subsidiary sub-national and communal unions of cotton producers associations if they are both assisted. However, USAID WACIP will not count all subsidiary members of regional organizations, but limit itself to members from C-4 countries. Partners will only be counted if they have been "assisted" according to the definition provided for indicator 33 above. Under this indicator, USAID WACIP will count governmental and related organizations, such as Ministries, cotton sector restructuring committees, national agricultural research institutes, and the CORAF regional cotton research network. USAID WACIP will include as "partners" all national and regional members of the project's national advisory committees as well as all recipients of project funds. Each partner organization is counted only one time (even if an organization has multiple types of partnerships with USAID WACIP). The results include multiple offices of government if those offices were independently members of USAID WACIP's National Advisory Committee (NACs). Within this list, USAID WACIP avoids double counting institutions that belong to more than one grouping. The project will also ensure that no organizations will be counted here if counted as: (a) producers' organizations, water users associations, trade and business associations, and CBOs (Indicator 33 above) assisted; (b) women's organizations/associations (Indicator 34 above); or (c) agriculture-related firms benefiting directly from interventions (Indicator 35 above). Baseline: 0

D. Additional Indicators

The following indicators were added to the PMP in May 2011. They represent a mix of impact indicators (38 and 39), outcome indicators (40) and output indicators (41-49).

Indicator 38: Gain in net revenues for farmers trained in good agricultural practices as a result of USG investment. This custom indicator translates the returns per hectare for cotton, maize and cowpea (Indicators 1, 2 and 3, above) into a US dollar estimate of the additional income generated for all three crops and all participating farmers in the given period.

Net revenues for farmers in a given period:

$$\begin{aligned} &= \text{Gross Margin for Cotton (USD/ha) * Number ha of Cotton} \\ &+ \text{Gross Margin for Maize (USD/ha) * Number ha of Maize} \\ &+ \text{Gross Margin for Cowpea (USD/ha) * Number ha of Cowpea} \end{aligned}$$

The gain in net revenues for farmers is the difference in net revenues in a given period minus the average of these same figures in the three year baseline period. Baseline = 0.

Indicator 39: Gain in net revenues for targeted ginning firms as a result of USG investment. This custom indicator is conceptually similar to Indicator 38 above. It provides an estimate of the revenues earned by cotton companies as a result of the fixed and variable investment in ginning efficiency undertaken as a result of the project. Fixed costs will be depreciated over a 10 year period.

Net revenues for ginners in a given period

$$\begin{aligned} &= \text{Value of base quality cotton lint commercialized} \\ &+ \text{Value per unit of cotton lint due to cotton quality (grades)} \\ &+ \text{Value per unit of cotton lint due to staple length of cotton} \\ &+ \text{Value per unit of cotton lint due to changes in ginning yields (ratio of lint to seed cotton)} \end{aligned}$$

- + **Changes in annual variable costs associated with the technology package (labor, electricity, maintenance, etc.)**
- **Fixed costs associated with the investment in the technology package, depreciated over 10 years.**

The gain in net revenues for ginners is the difference in net revenues in a given period minus the average of these same figures in the baseline period. Baseline = 0.

Indicator 40: Volume of non-contaminated seed cotton processed using USG-supported new processing techniques. This custom indicator measures the volume in metric tons of cotton that is less or non-contaminated due to project funded interventions. “Contamination” refers to the presence of organic material (e.g., sticks or twigs), inorganic material (e.g., pebbles or sand), and traces of inappropriate packaging materials (certain plastics such as polypropylene). Project-funded interventions can include a combination of farmer trainings (particularly for women farmers) in proper harvesting, stocking, and handling methods; trucker trainings in proper loading and transporting techniques; and factory worker trainings in proper handling and stocking techniques. It includes provision of harvesting materials (cotton bags and tarps) to a selected sub-sample of (mostly women) farmers trained in proper harvesting and stocking and handling methods. Baseline = 0.

Indicator 41, Number of people who have received (total) USG-supported trainings: This indicator provides a total of training indicators for agricultural productivity (#27 for males and #28 for females) and agricultural enabling environment (#29 for males and #30 for females). The definitions used for trainings are identical that of the component indicators.

Indicator 42, Number of males who have received USG supported short-term agricultural sector productivity training: Direct and Indicator 43, Number of males who have received USG supported short-term agricultural sector productivity training: Indirect. These two indicators disaggregate Indicator 27 (males receiving short term agricultural productivity training) into those men who were “directly” trained by a qualified trainer (# 42) and those men who were “indirectly” trained by a colleague, family member or neighbor (# 43). In the schema presented in Figure 4, men in groups A and B feed into Indicator 42 and men in groups C and D feed into Indicator 43.

Indicator 44, Number of females who have received USG supported short-term agricultural sector productivity training: Direct and Indicator 45, Number of females who have received USG supported short-term agricultural sector productivity training: Indirect. As for the case of Indicators #42 and #43, these two indicators disaggregate Indicator 28 (females receiving short term agricultural productivity training) into those females who were “directly” trained by a qualified trainer (# 29) and those men who were “indirectly” trained by a colleague, family member or neighbor. In the schema presented in Figure 4, women in groups A and B feed into Indicator 42 and women in groups C and D feed into Indicator 43.

Indicator 46, Number of males who have received USG supported short-term agricultural enabling environment training: Direct and Indicator 47, Number of males who have received USG supported short-term agricultural enabling environment training: Indirect. These measures are analogous to Indicators 42 and 43, except that they pertain to trainings related to the agricultural enabling environment.

Indicator 48, Number of females who have received USG supported short-term agricultural enabling environment training: Direct and Indicator 49, Number of females who have received USG supported short-term agricultural enabling environment training: Indirect. These measures are analogous to Indicators 44 and 45, except that they pertain to trainings related to the agricultural enabling environment.

VII. Monitoring Environmental Mitigation

WACIP's environmental risks and monitoring of environmental mitigation efforts pertain specifically to activities coming under intervention area 6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems and improving pest management practices. Thus, activities in this intervention area will incorporate a series of measures designed to ensure and monitor environmental risk mitigation, drawn from the recommendations of the USAID WACIP EA (Annex II). These include:

- Ensuring the exposure of USAID WACIP staff to USAID environmental compliance regulations, procedures and policies;
- Facilitating the exposure of key USAID WACIP partners to USAID environmental compliance regulations, procedures and policies;
- Promoting the training of farmers in the application of EA-compliant IPM and ISFM technologies that promote environmental risk mitigation;
- Promoting the adoption by farmers of these technologies;
- Explicitly including language requiring environmental compliance in grant agreements for all activities coming under intervention 6;
- Requiring the submission of environmental mitigation plans as annexes to grant agreements for all activities coming under intervention 6;
- Ensuring the participation of USAID environmental officers in the process of evaluating and approving terms of reference and grant agreements for activities coming under intervention 6;
- Ensuring the review of the content of all training materials produced under intervention 6 activities by external environmental specialists; and
- Conducting regular monitoring visits under USAID WACIP-supported activities to ensure environmental compliance.

USAID WACIP has also included three indicators (Indicators 18-20 above) specifically to track progress on these efforts.

VIII. Critical Assumptions

It is important to mention any critical assumptions, and cite factors that might affect results eventually achieved. In the event of the violation of any of these assumptions, USAID WACIP will engage with USAID to re-evaluate its results based on the prevailing situation. Our critical assumptions include the following:

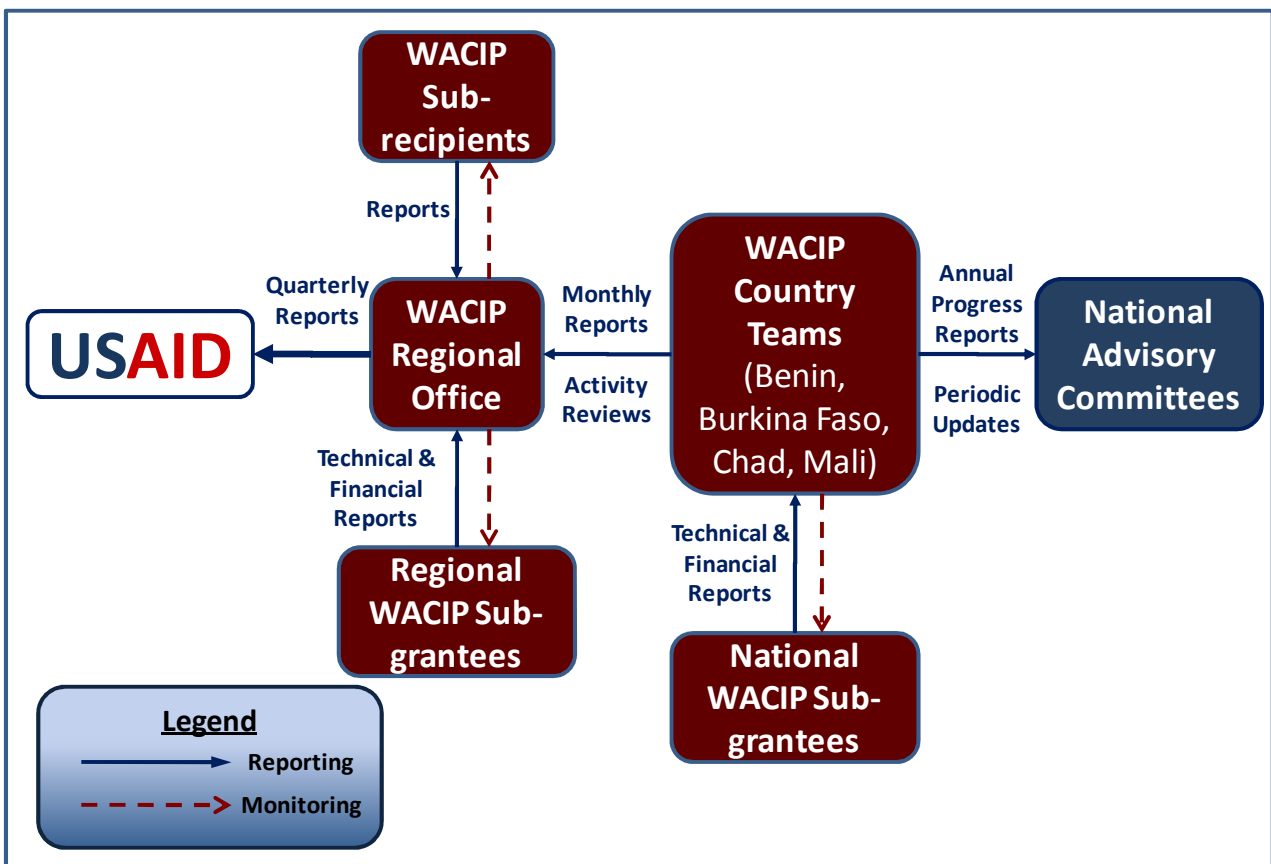
- Stakeholders' interest in improving the cotton sector environment through analysis and reform of existing cotton sector policies will remain high;
- C-4 Governments are or will become amenable to support policy and institutional reform within the cotton sector;
- No embargos or new trade barriers pertaining to cotton exports (or input imports) will be levied on C-4 countries;
- The cost of production and price of inputs will not increase dramatically (by more than 20%) during the course of the project;
- C-4 countries will not be afflicted by any natural disasters such as severe drought, blight or infestation that seriously affect cotton (and non-cotton crop) production during the project's duration;
- C-4 countries will not be afflicted with civil insecurity or political upheaval leading to the disruption of normal economic activity;
- Key cotton sector stakeholders (e.g. cotton companies, not sub-grantees) will be willing to provide data and information necessary in order to track progress towards indicator targets. This may be particularly challenging where it concerns information on the value of cotton products sold intra-regionally and internationally.

For the most part, the above factors are out of IFDC’s control. Should the situation develop in a manner other than what is assumed, this may adversely affect USAID WACIP’s ability to achieve the targets put forth in this monitoring plan.

IX. System of Data Collection

A “Guide to Data Collection” is presented in Annex III of this document. The Guide lists per indicator: the specific data to be collected, sources of information, the monitoring tools that will be used for data collection, the periodicity of data collection and the persons responsible for data collection. The USAID WACIP reporting and monitoring structure is also summarized in the figure below.

Figure 5: USAID WACIP Reporting and Monitoring Structure



Data Collection Tools

Many of the selected indicators are simple in nature, requiring only that outputs are counted (for example: number of persons trained, number of additional hectares under improved technology or number of policies analyzed). This type of data will be collected through reports submitted by sub-recipients under the USAID award, Country Coordinators and sub-grantees. Given that most of USAID WACIP’s activities will be implemented through grant activities, the grant reports will supply most of the information/data generated. Each grant agreement will specify the indicator(s) to which the activity will contribute, the data that must be collected in order to report progress towards that/those indicator(s), and specific targets to be obtained through the grant activity. Country Coordinator reports will provide additional data and information pertaining to activities that are implemented directly by USAID WACIP (rather than through grant activities). Sub-grantees will report quarterly on activities and progress made toward specific objectives outlined in the sub-grant agreements that define their work on USAID WACIP. There is no standard format for reports submitted by sub-grantees.

Other indicators require that a broader array of data is collected (for example, indicators that measure gross margin, net revenues and value of cotton lint). In order to track progress on these indicators, specific data collection tools have been or will be developed and employed. These tools include the following:

Farm production and income data collection sheet

The farm production and income data collection sheet is a simple table filled out individually for each sampled cotton farmer, by the data collector. The table includes cells for all individual elements of data to be collected (price of cotton, price of maize, price of millet, price of rice, kilos cotton sold, kilos maize sold, kilos maize consumed, and so on).

Organizational capacity/competency assessment tools

For the most part organizational capacity/competency assessments will be carried out by consultants or sub-grantees that will choose or develop the specific tools they plan to employ, depending on the nature of the organization or the particular system they are meant to assess. IFDC will review and approve all methodologies and evaluation tools proposed by consultants and sub-grantees prior to implementation of the assessment. In the case of activities focused on strengthening the national agricultural research institutes in the C-4, the project will adapt USAID's Partner Institutional Viability Assessment (PIVA) methodology.

Cotton (and non-cotton) productivity, revenues and expenditure log

IFDC has many years of experience in tracking cotton (and rotational crop) productivity, revenues earned and expenditures incurred by producers. Appropriate data collection forms, will be developed as necessary. Farmers, producer organization and other partners will up-date these logs on a regular basis (transferring information from their own records to this log). Logs will be collected in electronic or hard copy form by Country Coordinators, sub-grantees and the Monitoring and Evaluation (M&E) Specialist.

USAID WACIP staff will provide these tools upon request.

Where feasible, data collected through reports and data collection tools will be cross-checked against data readily available from partners' databases (cotton production associations, umbrella organizations, government offices, and so on.)

X. Data Analysis

Data will be compiled and analyzed monthly, primarily using Excel spreadsheets. A cumulative database including targets and all data pertaining to each indicator will be up-dated regularly so that the M&E Specialist is able to assess at any time the program's progress towards targets. Certain indicators will necessitate that data is collected only on an annual basis (for example, at the end of the cotton harvest) while other data will be collected monthly. The data collection period for each indicator is defined in the Guide to Data Collection presented in Annex III.

The central database will be updated each time new information is collected at the central level, and can be accessed and analyzed at any time in order to generate statistics and determine if the program is on course. All results will be disaggregated by country. Wherever it is deemed to be of potential interest, data will also be disaggregated by gender, type of organization, type of non-cotton crop, type of policy, and so on, and data analysis will compare results across disaggregated categories to determine any emerging tendencies with respect to the program's impact on varying target populations and groups.

Country Coordinator and sub-grantee reports will also contain qualitative information (for example pertaining to progress towards policy analysis) that will be summarized and where of interest, presented in quarterly program reports.

XI. Reporting Results

The following table lists the *major* reports used to present program progress internally and to USAID.

Table 5: Major Reports

Report	Information pertaining to	Submitted to	Submitted by	Periodicity
National Coordination monthly reports	Activities in each C-4 country	Chief of Party (COP) and M&E Specialist	Country Coordinators	Monthly
Quarterly reports	General state of progress in each C-4 country and regionally	USAID	COP	Quarterly (Oct, Jan, April, July)
Sub-grantee reports	All activities and data pertaining to pertinent indicators	Grants coordinator, COP, Administrator, M&E Specialist	Sub-grantee	Depending on grant agreement
Sub-recipient (under the USAID award) reports	Sub-awarded activities and data pertaining to all pertinent indicators	COP	Sub-recipient	Quarterly
Consultant reports	Activities and data pertaining to the consultancy	COP	Consultant	Depending on consultancy

XII. Roles and Responsibilities

USAID WACIP's M&E Specialist in Bamako is responsible for overall data management and analysis. He follows up with all reportees to ensure that reports are submitted in a timely manner, and will maintain all databases and conduct data analysis as necessary in order to present results in a comprehensive and easily understood format. The M&E Specialist also assists the COP or designee in writing periodic progress reports.

Abt Associates' senior M&E specialist will help train the program's M&E Specialist and recommend, as necessary, any refinements in the established data collection and analysis procedures. Abt Associates will also assist in reviewing progress reports to ensure that they are useful, accurate and complete.

USAID WACIP Country Coordinators in each of the C-4 countries are responsible for ensuring that sub-grantees in their country submit reports according to the schedule detailed within the sub-grant agreement. They are also responsible for collecting and reporting information that cannot be provided by sub-grantees. For example, data that contribute to general/beneficiary indicators and are derived from activities that are directly organized and implemented by USAID WACIP (rather than through sub-grant agreements) are collected and reported by Country Coordinators.

Sub-grant recipients are responsible for submitting reports that fully detail activities carried out, and which provide data on all indicators to which their activity pertains. The agreement with each sub-grant recipient will define which indicators pertain to the proposed activity, identify all elements of data that must be submitted by the sub-grantee, and determine the reporting periodicity.

Sub-recipients (under the USAID award) report their activities and results with respect to specific indicators through quarterly reports. There is no standard format for these reports as the areas of

intervention differ across sub-recipients agreements. The COP will maintain close communication with sub-recipients to ensure that they report not only on activities undertaken, but also provide data and information related to specific indicators related to their work.

Although government and private institutions will not formally be held responsible for certain information, USAID WACIP will rely on them to provide sector-specific data and statistics as necessary to inform program activities and cross-check data collected from other sources (for example on cotton production trends, processing statistics, etc.). The COP and M&E Specialist are responsible for maintaining communication and good relations with these partners, which may also be able to advise USAID WACIP data collection and analysis procedures.

ANNEX I: USAID WACIP Indicators & Targets

Indicator Level	Goal	#	Indicator Name	Unit	2007	2008	2009	2010	2011	2012	
Impact	Productivity	1	Percent change in gross margin for seed cotton for beneficiary farmers	%	0%	5%	10%	15%	0%	12%	
		2	Percent change in gross margin for maize for beneficiary farmers	%	0%	5%	8%	10%	0%	8%	
		3	Percent change in gross margin for cowpea for beneficiary farmers	%	0%	5%	8%	10%	0%	8%	
	Value-Added	4	Value of total trade in artisanal cotton products for targeted processors	\$US	-	-	40,000	10,000	60,000	40,000	
		5	Value of total trade in seed cotton for targeted processors	\$US	-	-	600,000	5,000,000	5,628,000	11,256,000	
Outcome	Productivity	6	Percent change in yield of seed cotton for beneficiary farmers	%	-	-	0	0	-	15%	
		7	Percent change in yield of maize for beneficiary farmers	%	-	-	0	0	-	8%	
		8	Percent change in yield of cowpea for beneficiary farmers	%	-	-	0	0	-	8%	
	Value-Added	9	Volume of organic seed cotton processed using WACIP-supported new processing techniques	Mt	-	-	600	-	-	-	
		10	Volume of conventional seed cotton processed using WACIP-supported new processing techniques	Mt	-	-	2,000	10,000	6,700	13,400	
			11	Number of new cotton products marketed by artisans	#	-	-	100	20	40	40
	Both		12	Number of institutions /organizations making significant improvements based on recommendations made via USG supported assessment	#	-	4	4	4	8	-
		13	Number of policy reforms adopted as a result of USG assistance	#	-	-	1	-	-	-	
Output	Productivity	14	Number of new technologies or management practices under field testing as a result of USG assistance	#	-	5	16	-	-	-	
		15	Number of new technologies or management practices made available for transfer	#	-	6	12	-	16	9	
		16	Number of farmers who have adopted new technologies	#	-	-	150,000	-	90,000	8,248	
		17	Number of additional hectares brought under improved technologies or management practices as a result of USG assistance	Ha	10,000	100,000	300,000	-	40,200	-	
		18	Number of extension agents receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance	#	-	-	400	-	150	-	
		19	Number of demonstration plots featuring EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance	#	-	-	400	-	150	-	
		20	Number of farmers receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance	#	-	-	150,000	-	13,400	-	
	Value-Added	21	Number of processors using new processing techniques	#	-	-	600	2	16	17	

Indicator Level	Goal	#	Indicator Name	Unit	2007	2008	2009	2010	2011	2012
Output	Both	22	Number of policy reforms analyzed as a result of USG assistance	#	-	10	1	-	1	-
		23	Number of policy reforms presented for public/stakeholder review as a result of USG assistance	#	-	5	1	-	-	-
		24	Number of analytical studies of policies and/or institutions completed as a result of USG assistance	#	-	-	10	-	1	-
		25	Number of analytical studies of policies and/or institutions disseminated as a result of USG assistance	#	-	-	80	-	120	121
		26	Number of institutions /organizations undergoing capacity/competency assessments as a result of USG assistance	#	-	4	4	4	4	-
		27	Number females who have received USG supported short term agricultural sector productivity training	#	-	44,838	50,000	-	15,544	8,258
		28	Number of males who have received USG supported short term agricultural sector productivity training	#	500	4,982	457,800	-	78,517	201
		29	Number of females who have received USG supported short term agricultural enabling environment training	#	-	162	100	-	54	45
		30	Number of males who have received USG supported short term agricultural enabling environment training	#	-	18	100	-	54	81
		31	Number of rural households benefiting directly from USG interventions	#	20,000	150,000	400,000	-	13,702	13,669
		32	Number of vulnerable households benefiting directly from USG interventions	#	-	62,550	200,000	-	7,473	7,454
		33	Number of producers' organizations, water users associations, trade and business associations, and community-based organizations (CBOs) assisted as a result of USG interventions	#	10	500	8,000	-	12	11
		34	Number of women's organizations/associations assisted as a result of USG interventions	#	-	20	7	4	13	5
		35	Number of agriculture-related firms benefiting directly from interventions as a result of USG assistance	#	8	33	15	2	6	4
		36	Number of public-private partnerships formed as a result of USG assistance	#	2	10	2	-	7	5
37	Number of partner organizations	#	-	70	30	-	9	32		

Indicator Level	Goal	#	Indicator Name	Unit	2007	2008	2009	2010	2011	2012
Output	Both	38	Gain in net revenues for farmers trained in good agricultural practices	\$	Not applicable, as these indicators were only added in FY 11				-	1,007,549
		39	Gain in net revenues for targeted ginning firms as result of USG investments	\$			402,818	1,168,087		
		40	Volume of non-contaminated seed cotton processed using USG-supported new processing techniques	MT			-	2,400		
		41	Number of people who have received (total) USG-supported trainings	#			94,172	8,585		
		42	Number of males who have received USG-supported short-term agricultural sector productivity training: Direct	#			14,209	50		
		43	Number of males who have received USG-supported short-term agricultural sector productivity training: Indirect	#			64,308	151		
		44	Number of females who have received USG-supported short-term agricultural sector productivity training: Direct	#			-	4,129		
		45	Number of females who have received USG-supported short-term agricultural sector productivity training: Indirect	#			15,548	4,129		
		46	Number of males who have received USG supported short-term agricultural enabling environment training: Direct	#			53	75		
		47	Number of males who have received USG supported short-term agricultural enabling environment training: Indirect	#			1	6		
		48	Number of females who have received USG supported short-term agricultural enabling environment training: Direct	#			32	15		
		49	Number of females who have received USG supported short-term agricultural enabling environment training: Indirect	#			21	30		

ANNEX II: USAID WACIP Environmental “Do’s and Don’ts”

The following list of Do’s and Don’ts are taken from the Executive Summary for USAID WACIP Cotton Environmental Assessment.

This USAID WACIP EA recommends the following actions for safer use of and risk reduction from pesticides:

Do not:

Use pesticide active ingredients found in products in the formal (legally regionally registered) sector and that are not US Environmental Protection Agency (EPA)-Registered, thus not permitted for USAID WACIP use:

- diafenthiuron
- triazophos
- haloxyfop methyl
- propaquizafop
- terbutryne

Use the following banned, not EPA-registered, pesticide active ingredients found in products in the informal (unregistered, illegal) sector, thus not permitted for USAID WACIP use:

- dieldrin
- HCH
- Lindane
- benomyl (benlate)

Use USEPA Restricted Use Pesticides (RUPs) that Contain the Following AIs:

Active Ingredients with Inordinate Acute Human Health Risks:

- beta-cyfluthrin
- cyfluthrin
- profenofos
- carbofuran
- endosulfan
- paraquat

Active Ingredients with Inordinate Chronic Human Health Risks:

- alpha-cypermethrin
- zeta-cypermethrin
- permethrin
- paraquat (Parkinsons Disease)

Unless USAID WACIP is able to perform certifiable RUP training for all farmers using them, do not permit the use of products containing the following active ingredients:

RUPs that have solely inordinate risks to the (aquatic) environment, not human health:

- chlorpyrifos-ethyl
- deltamethrin
- lambda cyhalothrin
- tralomethrin
- fenvalerate

Do not intercrop melons (spider mite alternate host) with cotton.

Do not grow solanaceous (eggplant, tomato, pepper) plants in rotation prior to, or near, cotton.

Do:

Immediately,

- *Perform training in safe use of pesticides, IPM, and environmental protection*
- *Teach proper plant, water, nutrient and soil management techniques*
- *Procure or subsidize personal protective equipment (PPE), especially single-cartridge carbon filter respirators and chemical-resistant gloves, for the most at-risk farmers*
- *During training, administer the Pesticide Use Checklist (PUC) for NGOs/PVOs*
- *For training, produce simple safe use training materials and posters (or if Ministry of Agriculture or FAO have already produced such training materials, duplicate and/or distribute these to trainees)*

During training, train young (teens-twenties) farmers to:

- *Ensure fields are clear of children before spraying, kept out after spraying has occurred, and kept away from pesticides and empty containers*
- *Apply pesticides early in the morning before bees forage and wind is minimal*
- *Apply pesticides at least 35 meters from drinking water sources and open water*
- *Avoid using pesticides in or near the national parks and where endangered species are known to exist*

And, as feasible:

- *Write simple IPM plans for important constraints encountered by ecological zone.*
- *Produce a quick safety reference guide for all of the pesticides to be used on cotton (obtaining MSDSs from individual companies would be a good start in this direction)*

Continuously,

- *Rotate among types or classes of pesticides to reduce the build-up of resistance*
- *Choose and use least toxic pesticides, as practical (toxicities are given in Table 1)*
- *Intend to use more target-specific biological and plant-based pesticides, as practical*
- *Work with the MOAs as they implement environmental compliance and safety training*
- *Monitor resistance by noting reduction in efficacy of pesticides during field visits*
- *Annually update changes to pesticides lists and communicate these changes to USAID via an amendment to the EA*

Do:

- Follow Good Agriculture Practices (GAPs) for cotton for quality plant health maintenance.
- Practice good soil, water, nutrient (mineral & biological) and organic matter management.
- Use high quality certified resistant hybrid cotton seed; discourage farmers from saving seed.
- Continue to promote raised bed cotton production; hand weeding.
- Train farmers to be able to recognize major pest species and beneficial insects/spiders.
- Train farmers to scout and monitor cotton fields weekly for pests throughout the season.
- Train farmers to do targeted treatment on pest hot-spots; to destroy cotton crop residues.
- Rotate cotton with nitrogen fixing soil-enhancing 'green manure' cover crops.
- Promote and use BT Cotton as a method of pest control that greatly reduces pesticide use.
- Promote planting field margins with parasitoid and predator-attracting plants/flowers.
- Promote communal pheromone traps to detect imminent moth incursions/population increase.
- Encourage CILSS to register BT toxin-derived pesticides for use against caterpillar pests.

ANNEX III: USAID WACIP Guide to Data Collection

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
Impact Indicators							
1. Percent change in gross margin for seed cotton for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of seed cotton cultivated - production of seed cotton - quantity of seed cotton sold - value of seed cotton sales - cost of purchased inputs	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	Implementing partners reports	M&E Specialist
2. Percent change in gross margin for maize for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of maize cultivated - production of maize - quantity of maize sold - value of maize sales - cost of purchased inputs	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	Implementing partners	M&E Specialist
3. Percent change in gross margin for cowpea for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of cowpea cultivated - production of cowpea - quantity of cowpea sold - value of cowpea sales - cost of purchased inputs	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	Implementing partners	M&E Specialist
4. Value of total trade in artisanal cotton products for targeted artisans	- Number of targeted artisan enterprises - Value of total sales for targeted artisan enterprises in domestic, intra-regional and international markets	Beneficiaries' financial documents	-Beneficiary questionnaire	Direct reporting	Monthly	- USAID WACIP country coordinators - ATA team	M&E Specialist
5. Value of total trade in cotton lint for targeted processors	Value of total trade in cotton lint for selected processors	Processor financial documents	Beneficiary Questionnaire	Direct reporting	According to sub-grant reporting schedule	Processors	M&E Specialist
Outcome Indicators							

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
6. Percent change in yield of seed cotton for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of seed cotton cultivated - production of seed cotton	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	- Implementing partners	M&E Specialist
7. Percent change in yield of maize for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of maize cultivated - production of maize	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	USAID WACIP country coordinators	M&E Specialist
8. Percent change in yield of cowpea for targeted farmers	-Number of targeted farmers (male and female) Per targeted farmer: - area of seed cotton cultivated - production of seed cotton	- Implementing partners reports - Country Coordinator reports	Beneficiary cotton productivity logs	Filling out and collection of productivity logs	Seasonal	USAID WACIP country coordinators	M&E Specialist
10. Volume of organic seed cotton processed using USAID WACIP-supported new processing techniques	Volume of organic seed cotton processed	- Processors' technical divisions - Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
11. Volume of conventional seed cotton processed using USAID WACIP-supported new processing techniques	Volume of conventional cotton fibre processed	- Processors' technical divisions - Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
12. Number of new cotton products marketed by targeted artisans	Number of cotton products marketed	- Processors' technical divisions - Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
13. Number of institutions /organizations making significant improvements based on recommendations made via USG supported assessment	Depends on the nature of the assessment	The organizations themselves.	Questionnaire, evaluation form	Question/answer, Verification	Periodically as appropriate	USAID WACIP regional team and country coordinators	M&E Specialist
14. Number of policy reforms adopted as a result of USG assistance	Number of policy reforms analyzed	Analysis reports, Minutes of meetings Workshop reports	N/A	Review of reports submitted	Periodically as relevant	USAID WACIP country coordinators	M&E Specialist
Output Indicators							

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
14. Number of new technologies or management practices under field testing as a result of USG assistance	-Number of new technologies or management practices under field testing -Number of pilot farmers testing the new technology	Research institutes, producer organizations, ginners,	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
15. Number of new technologies or management practices made available for transfer as a result of USG assistance	-Number of technology packages distributed -Number of technical instruction notes (<i>fiches techniques</i>) distributed	SNRA, IPA, Ginners, cotton research entities	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
16. Number of farmers who have adopted new technologies or management practices as a result of USG assistance	-Number of farmers benefiting from USAID WACIP extension activities	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
17. Number of additional hectares brought under improved technologies or management practices as a result of USG assistance	Collected per new technology/mgmt practice: -Number of sample pilot farmers choosing to adopt new technology/management practices -Average number of hectares per cotton farmer in each country - Number of hectares on which new technology or practice is used	IPA, POs, individual farmers, umbrella organizations	Data collection form	Direct Q&A, observation	Seasonal	POs, umbrella organizations, USAID WACIP country coordinators	M&E Specialist
18. Number of extension agents receiving training in EA-compliant technologies for mitigating risks from pests and pesticides as a result of USG assistance	- Number of male extension agents who have received USAID WACIP-funded extension training - Number of female extension agents who have received USAID WACIP-funded extension training	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
19. Number of demonstration plots featuring EA-consistent technologies for mitigating risks from pests and pesticides, as a	Number of demonstration plots featuring EA-consistent technologies for mitigating risks from pests and pesticides, as a result of USG assistance	- Implementing partners reports - Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
result of USG assistance							
20. Number farmers receiving training in EA-consistent technologies for mitigating risks from pests and pesticides, as a result of USG assistance	- Number of male farmers who have received USAID WACIP-funded extension training - Number of female farmers who have received USAID WACIP-funded extension training	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
21. Number of processors who have adopted new techniques	Number of processors using new techniques	Beneficiaries themselves, Country Coordinator reports	N/A	Direct information collection	Seasonal	USAID WACIP country coordinators	M&E Specialist
22. Number of policy reforms analyzed as a result of USG assistance	Number of policy reforms analyzed	Analysis reports, Minutes of meetings Workshop reports	N/A	Review of reports submitted	Periodically as relevant	USAID WACIP country coordinators	M&E Specialist
23. Number of policy reforms presented for public/stakeholder review as a result of USG assistance	Number of policy reforms presented for public-stakeholder review	All USAID WACIP partners involved	N/A	Review of reports submitted	Periodically as relevant	USAID WACIP country coordinators	M&E Specialist
24. Number of analytical studies of policies and/or institutions completed as a result of USG assistance	- Number of analytical studies of policies completed - Number of analytical studies of institutions completed	Analysis reports, Minutes of meetings Workshop reports	N/A	Review of reports submitted	Periodically as relevant	USAID WACIP country coordinators	M&E Specialist
25. Number of analytical studies of policies and/or institutions disseminated as a result of USG assistance	- Number of analytical studies of policies disseminated - Number of analytical studies of institutions disseminated	Analysis reports, Minutes of meetings Workshop reports	N/A	Review of reports submitted	Periodically as relevant	USAID WACIP country coordinators	M&E Specialist
26. Number of institutions /organizations undergoing capacity/competency assessments as a result of USG assistance	Depends on the nature of the assessment	The organizations themselves	Depending on the nature of the assessment (each evaluator will propose its own tools)	Depends on nature of the assessment	Periodically as assessments undertaken	Entity conducting assessment (consultant)	M&E Specialist
27. Number of males who have received USG supported short term agricultural sector	Number of males who have received USG supported short term agricultural sector productivity training (per training activity)	List of training participants, Training reports,	List of training participants	Review participant lists and	Seasonal	USAID WACIP country	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
productivity training		Beneficiaries themselves, Country Coordinator reports		reports		coordinators Implementing partners	
28. Number of females who have received USG supported short term agricultural sector productivity training	Number of females who have received USG supported short term agricultural sector productivity training (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
29. Number of males who have received USG supported short term agricultural enabling environment training	Number of males who have received USG supported short term agricultural enabling environment training (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
30. Number of females who have received USG supported short term agricultural enabling environment training	Number of females who have received USG supported short term agricultural enabling environment training (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
31. Number of rural households benefiting directly from USG interventions	Number of rural households benefiting directly from interventions	- Implementing partners reports - Country Coordinator reports	Beneficiary data collection form	Filling out data collection form and report review	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
32. Number of vulnerable households benefiting directly from USG interventions	Number of vulnerable households benefiting directly from interventions	World bank and other international institutions reports on vulnerability to food security	N/A	Website visits	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
33. Number of producers' organizations, water users associations, trade and business associations, and community-based organizations assisted as a result of USG interventions	-Number of producers' organizations, water users associations, trade and business associations, and community-based organizations (CBOs) assisted -Type of organization assisted	- Implementing partners reports - Country Coordinator reports	Beneficiary data collection form	Filling out data collection form and report review	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
34. Number of women's organizations/associations assisted as a result of USG interventions	Number of women's organizations/associations assisted	- Implementing partners reports - Country Coordinator reports	Beneficiary data collection form	Filling out data collection form and report review	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
35. Number of agriculture-related firms benefiting directly from interventions as a result of USG assistance	Number of agriculture-related firms benefiting directly from interventions	- Implementing partners reports - Country Coordinator reports	N/A	Review of reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
36. Number of public-private partnerships formed as a result of USG assistance	Number of public-private partnerships formed	- Implementing partners reports - Country Coordinator reports	Beneficiary data collection form	Filling out data collection form and report review	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
37. Number of partner organizations and active institutional members of those partner organizations	Number of partner Number of institutional members of those partner organizations	Country Coordinator reports	Grant reports, training, , event participation lists	Direct counting	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
38. Gain in net revenues for farmers trained in good agricultural practices	-Number of targeted farmers (male and female) for targeted crops (cotton, maize, cowpea) Per targeted farmer for targeted crops (cotton, maize, cowpea): - area cultivated - production - quantity of sold	- Beneficiaries themselves, various reports (country coordinator, grant, activity), - Partner organization files	Beneficiaries records, Partner collection forms	Filling out and collection of productivity logs	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
	- value of sales - cost of purchased inputs						
39. Gain in net revenues for targeted ginning firms as result of USG investments	- ginning yields - volume of cotton in each grade category - volume of cotton in each staple length category - prices associated with each grade and staple length category - fixed costs of investments in ginning efficiency and humidification - variable costs associated with ginning operations before and after the investments	Beneficiaries themselves,	Beneficiaries technical and financial records	Filling out and collection of ginning efficiency logs	Seasonal	Partner technical and financial divisions	M&E Specialist
40. Volume of non-contaminated seed cotton processed using USG-supported new processing techniques*	Volume of non-contaminated seed cotton processed by targeted processors	- Implementing partners reports - Country Coordinator reports	Beneficiaries technical	Filling out and collection of ginning efficiency logs	Seasonal	Partner technical division	M&E Specialist
41. Number of people who have received (total) USG-supported trainings	- Number of males and females directly trained by partners' extension agents in agricultural productivity (per training activity) - Number of males and females indirectly trained by partners' extension agents in agricultural productivity (per training activity) - Number of males and females directly trained by partners' extension agents in agricultural enabling environment (per training activity) - Number of males and females indirectly trained by partners' extension agents in agricultural enabling environment (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
42. Number of males who have received USG-supported short-term agricultural sector productivity training: Direct	- Number of males directly trained by partners' extension agents in agricultural productivity (per training activity)	List of training participants, Training reports, Beneficiaries themselves,	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
		Country Coordinator reports				partners	
43. Number of males who have received USG-supported short-term agricultural sector productivity training: Indirect	- Number of males indirectly trained by partners' extension agents in agricultural productivity (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
44. Number of females who have received USG-supported short-term agricultural sector productivity training: Direct	- Number of females directly trained by partners' extension agents in agricultural productivity (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
45. Number of females who have received USG-supported short-term agricultural sector productivity training: Indirect	- Number of females indirectly trained by partners' extension agents in agricultural productivity (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
46. Number of males who have received USG supported short-term agricultural enabling environment training: Direct	- Number of males directly trained by partners' extension agents in agricultural enabling environment (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
47. Number of males who have received USG supported short-term agricultural enabling environment training: Indirect	- Number of males indirectly trained by partners' extension agents in agricultural enabling environment (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist

Indicators (new and existing)	Data to be collected	Source of Information	Tools/ Supports	Methods	Collection Period	Collection Agents	Responsible Persons and Supervisors
48. Number of females who have received USG supported short-term agricultural enabling environment training: Direct	- Number of females indirectly trained by partners' extension agents in agricultural enabling environment (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist
49. Number of females who have received USG supported short-term agricultural enabling environment training: Indirect	- Number of females indirectly trained by partners' extension agents in agricultural enabling environment (per training activity)	List of training participants, Training reports, Beneficiaries themselves, Country Coordinator reports	List of training participants	Review participant lists and reports	Seasonal	USAID WACIP country coordinators Implementing partners	M&E Specialist