

**INITIAL ENVIRONMENTAL EXAMINATION
AND CATEGORICAL EXCLUSION
COVERING THE WEST AFRICA COTTON IMPROVEMENT PROGRAM**

PROGRAM/ACTIVITY DATA:

Program/Activity Number: 624-A-00-00008-00
Country/Region: Benin, Burkina Faso, Chad, Mali/West Africa
Program/Activity Title: West Africa Cotton Improvement Program

Funding Begin: 12/01/2006
Funding End: 11/30/2009
LOP Amount: \$18,987,800

IEE Prepared By: Harry Bottenberg
IEE Amendment (Y/N): N
Current Date: 24 September 2007

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion: X

Negative Determination with conditions X

Positive Determination: X

Deferral:

PROJECT BACKGROUND

The goal of the West Africa Cotton Improvement Program is to increase net farm income of cotton producers in Benin, Burkina Faso, Chad, and Mali. WACIP seeks to provide a policy and institutional environment conducive to increased productivity of cotton and rotational crops and improved efficiency of the cotton value chain. The program contains nine intervention areas that can be grouped in four broad themes: policies, productivity, transformation and cross-cutting issues. WACIP is implemented by a consortium that will program about 50% of its \$19 million budget through national and regional partners.

SUMMARY OF FINDINGS:

A **Categorical Exclusion** is recommended, based on 22 CFR 216.2(c)(2)(i) and/or (iii) for the following intervention areas supported by WACIP:

Intervention area #1: Support policy and institutional reform for private management of the sector.

Intervention area #4: Establish a West African regional training program for ginners.

Intervention area #8: Improve linkages between U.S. and West African agricultural research organizations in the cotton sector.

A **Negative Determination with conditions** is recommended per 22 CFR 216.3(a)(2)(iii) for the following activities that, with the implementation of the recommended mitigation and monitoring measures, are not expected to have significant adverse effects on the environment.

Intervention area #2: Strengthen private cotton producer organizations in business management practices in the c-4 countries.

Condition: For cotton producer organizations to be eligible for WACIP business management training, they must demonstrate that they are following and applying production guidelines as noted for intervention areas #s 3, 5, 6, 7 and 9 and in accordance to environmental principles described in EGSSAA chapters on agriculture (www.encapafrica.org/SmallScaleGuidelines.htm).

Intervention area #3: Improve the quality of C-4 cotton through better harvesting technologies, better collection and grading of seed cotton, better procurement approaches, and more rigorous lint classification.

- Condition: Through training, media messages and other outreach activities, the following will be promoted:
 - cloth bags rather than plastic bags for harvesting to reduce environmental pollution.
 - facemasks and allowable norms for dust exposure to workers to minimize risk to workers.

Intervention area #5: Add value to West African cotton through processing and transformation within the region.

- Condition: Processing and transformation activities will follow guidelines contained in EGSSAA.

Intervention area #6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems

- Condition: Through training, media messages and other outreach activities, the following will be promoted:
 - Appropriate use of chemical fertilizers to minimize contamination of streams, lakes and groundwater.
 - Use of compost, animal manure, green manure, rotation with N-fixing species to improve soil structure and fertility.
 - Use of irrigation best practices to minimize salinity problems
 - Sensitization of farmer against encroachment into biologically fragile or degraded areas.

Intervention area #7: Improve Access and quality to, and reduce costs of inputs (seeds, fertilizer and chemicals).

- Condition: Same as for Intervention area #6.

Intervention area #9: Enhance capacity to manage the technical issues associated with deployment of agricultural biotechnology, including Bt cotton.

Conditions:

1. Biotechnology interventions to be carried out at in contained facilities (e.g. laboratories or greenhouses) must follow existing host country national

regulations and guidelines governing recombinant DNA research, testing and commercialization, and of GMOs as outlined in the *National Institute of Health (NIH) Guidelines*. These guidelines may be located at http://www.od.nih.gov/oba/rac/guidelines_02/NIH_Guidelines_Apr_02.htm.

2. No biotechnology testing or release of any kind are to take place within an assisted country until the host countries involved have made formal decisions to approve such testing or release based on national guidelines or regulatory framework governing biotechnology and biosafety;
3. Further, no support for field testing or training of seed companies around the deployment of biotech crops is allowed until a biosafety review is conducted by USAID in accordance with ADS 211; it is anticipated that a biosafety review for cotton will be completed by EGAT/ESP/IRB once the host governments receive and approve the application/plan for seed multiplication and distribution.
4. The responsible Office must assure that its grantees and contractors comply with national and international laws applicable to biotechnology research and testing.

A **positive determination** is recommended per 22 CFR 216.3. (a) (2) (iii) for the following activities:

Intervention area #6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems.

The **positive determination** requires an Environmental Assessment (EA). The EA will focus on the development of a comprehensive Integrated Pest Management (IPM) program that includes organically produced cotton as well as the use of selected pesticides that are approved by the US EPA. The Environmental Assessment will approve the optimal design for the WACIP IPM program. Activities that the EA will address include, but will not be limited to:

- Integrated Pest Management principles and practices to reduce insecticide usage and negative impacts to humans and the environment.
- Pesticide safety measures (e.g. respirator, gloves, boots etc.) to reduce risk to applicators.

As required by ADS 204.3.4, the Agriculture and Natural Resources Office (ANRO) and activity implementing partner will "actively monitor and evaluate whether the environmental features designed for the activity resulting from the 22 CFR 216 process are being implemented effectively and whether there are new or unforeseen consequences arising during implementation that were not identified and reviewed in accordance with 22 CFR 216." The ANRO team shall also monitor the need for additional environmental review based on IEE recommendations. ANRO shall ensure that provisions of the IEE, including the conditions and monitoring set forth herein, are incorporated into all contracts, cooperative agreements, grants and sub-grants, as appropriate. Results of monitoring shall be reported in Activity Reports, which will contain a separate section on

environmental compliance and monitoring, and shall include successes and failures in implementing mitigation measures.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:

CLEARANCE:

Mission Director:



Jatinder Cheema

Date: 9/24/07

CONCURRENCE:

Africa Bureau Environmental Officer:



Brian Hirsch

Date: 9/25/07

File No: WA_FY07_WACIP_1EE_092507.doc

ADDITIONAL CLEARANCES:

Office Chief,
Agriculture & Natural Resources Office:



Melissa Knight

Date: 9/24/07

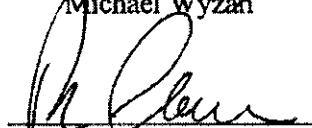
Cognizant Technical Officer WACIP



Michael Wyzan

Date: 9/24/07

Regional Environmental Officer:



Rob Clausen

Date: 9/24/07

Optional:

General Counsel (Africa Bureau):

_____ Date: _____

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:

CLEARANCE:

Mission Director: _____ Date: _____
Jatinder Cheema

CONCURRENCE:

Africa Bureau Environmental Officer: _____ Date: _____
Brian Hirsch

File No: _____

ADDITIONAL CLEARANCES:

Office Chief,
Agriculture & Natural Resources Office: _____ Date: _____
Melissa Knight

Cognizant Technical Officer WACIP _____ Date: _____
Michael Wyzan

Regional Environmental Officer: _____ Date: _____
Rob Clausen

Optional:

General Counsel (Africa Bureau): _____ Date: _____

INITIAL ENVIRONMENTAL EXAMINATION

Program/Activity Number: 624-A-00-00008-00
Country/Region: Benin, Burkina Faso, Mali, Chad/West Africa
Program/Activity Title: West Africa Cotton Improvement Program (WACIP)

1.0 BACKGROUND AND PROGRAM DESCRIPTION

1.1 Purpose and Scope of IEE

This IEE evaluates WACIP activities to determine the foreseeable effects of the proposed actions on the environment. Based on the nature and extent of potential environmental impacts, this IEE will recommend a threshold decision(s) to the Bureau Environmental Officer (BEO).

1.1.2 Background

This grant supports the design and implementation of a technical assistance program in four West African cotton producing countries including, Benin, Burkina Faso, Chad, and Mali. The goal of the program is to increase net farm income of cotton producers in the four countries by improving cotton production and processing, increased marketing and strengthening the policy environment. WACIP will support interventions that enhance the efficiency of the cotton value chain and minimize risks to producers through the diversification of cotton production systems.

1.1.3 Description of Activities

The program contains nine intervention areas that can be grouped into four broad themes: Policy and Institutional Reform; Value Added in Cotton Processing and Transformation; Cotton Productivity; and Cross-cutting Issues.

The Policy and Institutional Reform area includes:

Intervention area #1: Support policy and institutional reform for private management of the sector, and;

Intervention area #2: Strengthen private cotton producer organizations in business management practices in the c-4 countries.

The Value Added in Cotton Processing and Transformation area includes:

Intervention area #3: Improve the quality of C-4 cotton through better harvesting technologies, better collection and grading of seed cotton, better procurement approaches, and more rigorous lint classification;

Intervention area #4: Establish a West African regional training program for ginners.

Intervention area #5: Add value to West African cotton through processing and transformation within the region.

The Cotton Productivity area includes:

Intervention area #6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems;

Intervention area #7: Improve Access and quality to, and reduce costs of inputs (seeds, fertilizer and chemicals);

Intervention area #8: Improve linkages between U.S. and West African agricultural research organizations in the cotton sector.

Intervention area #9: Enhance capacity to manage the technical issues and establish biosafety, and regulatory procedures for agricultural biotechnology, including Bt cotton.

The Cross-cutting area includes:

Gender issues to ensure the participation of women;

Accommodating the needs of disadvantaged groups, especially people living with HIV/AIDS;

Environmental impact and associated mitigation measures.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 Locations Affected

The WACIP program will be implemented in four West African countries (Benin, Burkina Faso, Mali and Chad). West Africa lies between latitudes 4°N and 28°N and longitudes 15°E and 16°W. With an area of 6 million km², the region covers one fifth of Africa. West Africa is made up largely of an ancient Precambrian land mass; the topography of the region consists of undulating low plateau < 600 m above sea level, which are bordered on the west and south by coastal plains and contain isolated highland areas above 500 m, including the Guinean highlands (up to 1750 meters) the Plateau of Djado in Northern Niger (1,100 meters) and the Mount Cameroon massif (4,000+ meters). The predominant soil types of the cotton growing area (C4 countries) are Luvisols-Nitsols-Planosols (FAO classification) that contain clay at increasing depths; these are among the more fertile soils of WA.

Within the region, the WACIP program focuses on the cotton producing areas in the predominantly livestock, cereal-root and tuber crop mixed farming system of WA. Due to sustained population growth and corresponding increases in demand for food and fiber and low productivity of the region's agriculture, farming and grazing activities are rapidly expanding to marginal and ecologically sensitive areas. Many of these areas are also susceptible to drought. FAO estimates that agriculture coupled with overgrazing and slash and burn cultivation (practiced by over 250 million small-scale farmers) is responsible for 70 per cent of deforestation in the region (Tapen and Cusing, 2004).

2.2 Regional/National Environmental Policies and Procedures

The region has a sub-regional Environmental Action Program which includes plans for combating desertification and mitigating the effects of drought. The objectives of the Action Program are: 1) to harmonize, complement and increase the efficiency of National Environmental Action programs; 2) to define long term sub-regional strategies for greater efficiency in combating desertification; and 3) to support the region's stakeholders in their shared resource management efforts. Fifteen West African countries including Mali and Niger have Environmental Action Plans.

Collaboration between regional entities such as CILSS (Comité Permanent Inter-Etate pour la Lutte contre la Sécheresse au Sahel), INSAH (Institut du Sahel) the USGS, and the national environment departments and agencies of select West African States (including the four countries targeted by this program), has produced comprehensive records of land use and land cover trends for the past 30+ years. This information includes satellite images from 1972/75, 1984/86, and 2000/05 that can be used to monitor spatially explicit alterations and transformations of land cover. Among the target countries, Mali has already completed land use and land cover mapping which will serve as a baseline for evaluating agricultural intensification and other related activities.

3.0 EVALUATION OF PROJECT/PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

No direct impacts on the environment are expected from activities supported by USAID under this grant with the exception of the following: pesticides; some agricultural production technologies; and the application of biotech crops in field trials or seed multiplication for general release. Recommended threshold decisions in relation to pesticide use, agricultural production technologies and biotech crops are contained in this IEE.

4.0 RECOMMENDED THRESHOLD DECISIONS & MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

A **Categorical Exclusion** is recommended, based on 22 CFR 216.2(c)(2)(i) and/or (iii) for the following intervention areas supported by WACIP:

Intervention area #1: Support policy and institutional reform for private management of the sector.

Intervention area #4: Establish a West African regional training program for ginners.

Intervention area #8: Improve linkages between U.S. and West African agricultural research organizations in the cotton sector.

A **Negative Determination with conditions** is recommended per 22 CFR 216.3(a)(2)(iii) for the following activities that, with the implementation of the recommended mitigation and monitoring measures, are not expected to have significant adverse effects on the environment.

Intervention area #2: Strengthen private cotton producer organizations in business management practices in the c-4 countries.

- Condition:
 - For cotton producer organizations to be eligible for WACIP business management training, they must demonstrate that they are following and applying production guidelines as noted for intervention areas #s 3, 5, 6, 7 and 9 and in accordance to environmental principles described in EGSSAA chapters on agriculture (www.encapafrika.org/SmallScaleGuidelines.htm).

Intervention area #3: Improve the quality of C-4 cotton through better harvesting technologies, better collection and grading of seed cotton, better procurement approaches, and more rigorous lint classification.

- Condition: Through training, media messages and other outreach activities, the following will be promoted:
 - cloth bags rather than plastic bags for harvesting to reduce environmental pollution.
 - facemasks and allowable norms for dust exposure to workers to minimize risk to workers.

Intervention area #5: Add value to West African cotton through processing and transformation within the region.

- Condition: Processing and transformation activities will follow guidelines contained in EGSSAA.

Intervention area #6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems (excluding pest management-related activities, for which a Positive Determination is proposed. See below).

- Condition: Through training, media messages and other outreach activities, the following will be promoted:
 - Appropriate use of chemical fertilizers to minimize contamination of streams, lakes and groundwater.
 - Use of compost, animal manure, green manure, rotation with N-fixing species to improve soil structure and fertility.
 - Use of irrigation best practices to minimize salinity problems
 - Sensitization of farmer against encroachment into biologically fragile or degraded areas.

Intervention area #7: Improve Access and quality to, and reduce costs of inputs (seeds, fertilizer and chemicals).

- Condition: Same as for Intervention area #6.

Intervention area #9: Enhance capacity to manage the technical issues associated with deployment of agricultural biotechnology, including Bt cotton.

- Conditions:
 - Biotechnology interventions to be carried out in contained facilities (e.g. laboratories or greenhouses) must follow existing host country national regulations and guidelines governing recombinant DNA research, testing and commercialization, and of GMOs as outlined in the *National Institute of Health (NIH) Guidelines*. These guidelines may be located at

http://www.od.nih.gov/oba/rac/guidelines_02/NIH_Guidelines_Apr_02.htm.

- No biotechnology testing or release of any kind are to take place within an assisted country until the host countries involved have made formal decisions to approve such testing or release based on national guidelines or regulatory framework governing biotechnology and bio-safety.
- Further, no support for field testing or training of seed companies around the deployment of biotech crops is allowed until a biosafety review is conducted by USAID in accordance with ADS 211; it is anticipated that a biosafety review for cotton will be completed by EGAT/ESP/IRB once the host governments receive and approve the application/plan for seed multiplication and distribution.
- The responsible Office must assure that its grantees and contractors comply with national and international laws applicable to biotechnology research and testing.

A **positive determination** is recommended per 22 CFR 216.3. (a) (2) (iii) for the following activities:

Intervention area #6: Expand the use of good agricultural practices in cotton producing areas, including addressing soil degradation and fertility problems.

Specifically, the EA will focus on the development of a comprehensive Integrated Pest Management (IPM) program that includes organically produced cotton as well as the use of selected pesticides that are approved by the US EPA. The Environmental Assessment will approve the optimal design for the WACIP IPM program. Activities that the EA will address include, but will not be limited to:

- Integrated Pest Management principles and practices to reduce insecticide usage and negative impacts to humans and the environment.
- Pesticide safety measures (e.g. respirator, gloves, boots etc.) to reduce risk to applicators.

4.1 Environmental Screening and Review Process

The USAID/AFR Bureau Environmental Officer and the CTO will coordinate the planning and implementation of the EA. In line with the EA's recommendation, the CTO will screen proposed grant activities according to the USAID/AFR Bureau Screening and Environmental Review Process, which is described in the Bureau's Environmental Training Manual, "Annex G: Umbrella IEEs and Subgrant Environmental Screening" as well as in the Africa Bureau Environmental Guidelines, part III. Both can be found at <http://www.encapafrika.org/resorces.html>.

Until the EA is completed, the CTO and the Bureau Environmental Officer (or his designee for this purpose) will review and approve/disapprove activities that involve the

use of biotech crops or pesticides.. For biotech crops the conditions guiding such determination are stipulated in 4.0.

4.2 Mitigating, Monitoring and Evaluation

No mitigation measures are needed for the types of activities USAID expects to directly support under this agreement prior to undertaking a full EA. The biosafety review will be completed later in the project cycle, once applications and distribution plans are submitted to the respective governments for approval. Additionally, the screening and environmental review process described above will serve as the monitoring system to make certain that the supported activities have no direct impact on the environment.

Depending on the recommendation of the EA report and as required by ADS 204.3.4, the Agriculture and Natural Resources Office (ANRO) (with the WACIP grantee) will "actively monitor and evaluate whether the environmental features designed for the activity resulting from the 22 CFR 216 process are being implemented effectively and whether there are new or unforeseen consequences arising during implementation that were not identified and reviewed in accordance with 22 CFR 216."

4.3 Environmental Responsibilities

As required by ADS 204.3.4, the Activity Manager must actively monitor ongoing activities for compliance with approved IEE recommendations, and modify or end activities that are not in compliance. If additional activities not described in this document are added to this program, then amended or new environmental documentation must be prepared. The Activity Manager will also ensure that provisions of the IEE concerning the conditions specified herein, along with the requirement to monitor, be incorporated in all contracts, cooperative agreements, grants and sub-grants.