

**INITIAL ENVIRONMENTAL EXAMINATION  
OR CATEGORICAL EXCLUSION**

**PROGRAM/ACTIVITY DATA**

**Program/Activity Number:** 685-013

**Country/Region:** Senegal/West Africa

**Program/Activity Title:** Better Educated Youth

**Funding Begin:** FY06 Funding **End:** FY 10 LOP **Amount:** \$40,000,000

**IEE Prepared By:** USAID/Senegal/SDO: Mamadou Ndaw **Current Date:** 05/04/2006

**IEE Amendment (Y/N):** N If "yes", Number & date of original IEE:

**ENVIRONMENTAL ACTION RECOMMENDED** (Place X where applicable)

Categorical Exclusion:   X   Negative Determination:   X  

Positive Determination:        Deferral:       

**ADDITIONAL ELEMENTS:** (Place X where applicable)

EMEMP:        CONDITIONS:   X   PVO/NGO:       

**SUMMARY OF FINDINGS (Please Limit Text to This Page):**

This IEE is directed at the entire Strategic Objective (SO 685-0013) which addresses youth education. The program will support technical assistance, supply of educational materials, monitoring and evaluation, training activities, and school construction and rehabilitation. The construction or rehabilitation activities will be focused on training facilities and restrooms where they do not exist in a functional condition. This program will also support training for teachers, school principals and local community leaders to manage their schools, and promote the use of information and communication technologies in targeted schools. In addition, activities will include support to vocational community schools, Koranic schools and peace education through the provision of technical assistance, training, commodities and/or construction services.

1. Pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v), **Categorical Exclusions are** recommended for IRs 2, 3, and 4 for program-supported activities involving technical assistance, training and education, institutional strengthening, supply of educational materials, capacity-building and performance monitoring activities, awareness raising, communications and information, regulatory and policy related activities that have no physical interventions and no direct effects on the environment.

2. As per 22 CFR 216.3 (a) (2) (iii), a **Negative Determination with Conditions** is recommended for IR 1: Increased access to basic education, especially for girls and vulnerable children for the execution of small construction/rehabilitation activities that include schools, wells, latrines, restrooms, and environmental sanitation improvement around schools. The conditions are that any individual building does not exceed 10,000 square feet and construction should be conducted in a manner consistent with best practices as outlined in the Small-Scale Construction Chapter of the USAID Environmental Guidelines for Small Scale Activities in Africa, [www.encapafrika.org](http://www.encapafrika.org). Tree-planting activities associated with school construction and/or rehabilitation also need to follow the EGGSSA in relation to reforestation work, especially the use of exotic species.

*Water and Sanitation conditions:*

Both water supply and sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in EGSSAA Chapter 16: Water Supply and Sanitation. The SO Team and implementing partners should closely examine this chapter, as it provides a thorough discussion of program design and implementation issues that can help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, "Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in Ethiopia," by Catholic Relief Services and USAID, July 31, 2003.

Water quality testing is essential for determining that the water from a constructed water source is safe to drink and to determine a baseline so that any future degradation can be detected. Among the water quality tests which must be performed are tests for the presence of arsenic. Any USAID-supported activity engaged in the provision of potable water must adhere to Guidance Cable State 98 108651, which requires arsenic testing. That 1998 cable also

anticipates “practical guidelines on sampling and testing for arsenic” that were then under development. The EGAT Bureau completed these guidelines, and the Africa Bureau has packaged them in a document titled, “[Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa.](#)” The SO team must assure that the standards and testing procedures described in this guideline document are followed for potable water supply activities under this program.

**3.** Pursuant to 22 CFR 216.3 (a) (7), a **Deferral** is recommended for any individual construction/rehabilitation activities exceeding 10,000 sq. feet. A separate environmental assessment will be prepared for each activity for appropriate review. No funds will be disbursed until these assessments have been approved.

**Monitoring:**

As required by ADS 204.5.4, the SO13 Team and activity implementing partners 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 SO Team shall also monitor the need for additional environmental review based on IEE recommendations. SO13, in collaboration with implementing partners, 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.

**APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:**

Senegal SO13: Better Educated Youth

**CLEARANCE:**

Director, USAID/Senegal \_\_\_\_\_  
Olivier Carduner

Date \_\_\_\_\_

**CONCURRENCE:**

Bureau Environmental Officer \_\_\_\_\_  
Brian Hirsch

Date 06/28/06 \_\_\_\_\_

Approved  \_\_\_\_\_

Disapproved \_\_\_\_\_

**File No.**

**ADDITIONAL CLEARANCES:**

Mission Environmental Officer \_\_\_\_\_  
Aminata Badiane

Date \_\_\_\_\_

Cognizant Technical Officer \_\_\_\_\_  
Papa Momar Sow

Date \_\_\_\_\_

Team Leader \_\_\_\_\_  
Jennifer Adams

Date \_\_\_\_\_

Deputy Director \_\_\_\_\_  
Erin Soto

Date \_\_\_\_\_

**OPTIONAL CLEARANCE:**

AFR/General Counsel \_\_\_\_\_  
John Niemeyer

Date \_\_\_\_\_

Regional Environmental Officer \_\_\_\_\_/cleared/\_\_\_\_\_  
Robert Clausen

Date June 5, 2006 \_\_\_\_\_

**INITIAL ENVIRONMENTAL EXAMINATION  
OR  
CATEGORICAL EXCLUSION**

**PROGRAM ACTIVITY DATA**

**Title and Activity Number:** 685-0013

**Country/Region:** Senegal/Africa

**Program/Activity Title:** Better Educated Youth

**1.0. BACKGROUND AND PROJECT DESCRIPTION**

Education accounts for 40% of Senegal's budget, the largest single sector allocation, signaling the importance given to the sector by the government. The two key priorities of the GOS' ten-year plan for improving education are: (a) promoting a ten-year cycle combining the primary (basic) and middle school (upper basic) systems in such a way that at least 50% of primary school graduates are able to complete middle school; and, (b) increasing access to and improving the quality of vocational training. USAID/Senegal has played a key role in helping the GOS meet their goals. Between 2002 and 2004, middle school enrollment in the three regions in which USAID was active increased from 32,000 to 45,000. Unfortunately, these improvements only begin to tackle the problem, as there remains a huge unmet need for middle school classrooms. Many of the teachers currently participating in USAID teacher training programs are still teaching under trees or informal structures.

A focus on youth and workforce development is critical in Senegal for many reasons. Senegal has been identified as having a youth bulge that poses extreme risks to its stability, with 50.2% of the population between the ages of 15-29. Children who do not complete sixth grade face very limited job or income-generating prospects and are more likely to become a societal risk by being recruited into illegal activities of all kinds, including the drug trade, smuggling or, terrorist cells. Access to education, however, is not a panacea. According to private companies, the quality of the workforce produced by the school system is poor. Firms are unable to find workers with the skills needed to easily assume positions in offices and factories. In order to successfully implement Senegal's Accelerated Growth Strategy, the GOS recognizes that a much more targeted workforce development program is needed.

This Youth Education Program was developed in close collaboration with the GOS Ministry of Education and addresses the two main sector objectives presented in the Strategic Framework for Africa: promoting equitable access to quality basic education; and improving access to productivity-increasing job skills.

USAID/Senegal will assist the GOS to expand access to middle school education, improve the quality of education with a focus on science and math; build students' information technology skills; provide vocational training for youth; improve the quality of education offered in Koranic schools; and promote peace education in conflict areas. This education program also increases girls' enrollment and completion rates through scholarship programs and community-level work. In addition, USAID/Senegal will work closely with the GOS to identify strategies for increasing the percentage of women teachers.

**1.1. Purpose and Scope of the IEE:** This Initial Environmental Examination (IEE) is directed at USAID/Senegal's proposed Youth Education Program in Senegal. Pursuant to 22 CFR 216, this IEE recommends a threshold decision regarding the potential for negative environmental impact from these activities, as well as any mitigating actions that might be needed to prevent significant environmental impact.

School construction and rehabilitation is one major focus of this program, which will entail increasing the number of classrooms, offices, and most of all, the availability of latrines, restrooms, and wastewater disposal systems in the schools. The Youth Education Program will build 18 new middle schools and renovate 6 existing ones, including classrooms, latrines and wells as needed in the schools selected in accordance with the attached technical specifications (Attachment 1) and the attached environmental specifications (Attachment 2). The Youth Education Program is to provide training in the use and maintenance of this infrastructure in the 30 schools whether provided by

the program or already existing.

Technical specifications for various types of improvements are given in Attachment 1.

**1.2 Description:** This is a \$40,000,000, five-year program that is a follow on to activities conducted under the 1998-2006 strategy. The strategic objective (SO) of the program is *Better Educated Youth*. The attainment of the following four intermediate results (IRs) is required for the achievement of the SO:

**IR 1:** Increased access to basic education, especially for girls and vulnerable children

**IR 2:** Improved quality of education in supported schools

**IR 3:** Improved governance in the education system

**IR 4:** Improved public and private sector partnerships for youth job skills training

Key activities for each of these intermediate results are as follows:

***IR 1: Increased access to basic education, especially for girls and vulnerable children***

This IR intends to expand access to lower secondary education, stimulate a demand for girl's education and create a school environment favorable to the retention of girls in middle school. To that end, more middle schools will be built or renovated, and community awareness increased regarding the importance of girls' education. USAID will help the GOS address the huge unmet needs for school infrastructure; USAID will work in six regions including three new ones: Ziguinchor, Louga and Saint Louis. The program will build new 18 middle schools in villages and towns where previously there were none, and rehabilitate 6 old facilities that are in disrepair. This will include the construction or rehabilitation of classrooms, latrines and wells. USAID will also improve the quality of middle school education through teacher training, and increased parental involvement. The program emphasizes community participation in building and managing the schools to reinforce the crucial role that parents and community leaders play in the success of their children's education.

***IR 2: Improved quality of education in supported schools***

The program intends to improve the learning and teaching conditions in assisted middle schools as well as Koranic schools in the targeted regions. This will be achieved through a number of approaches including: (1) creating a stimulating learning environment; (2) improving the teaching of science and math; (3) ensuring the availability of necessary learning materials; and (4) increasing access to new technologies and information. Illustrative activities include but are not limited to:

- increasing the availability of teaching materials (books, teaching tools, visual aids, etc.);
- introducing and promoting new skills and teaching practices, particularly with respect to modern, student-centered teaching methods, the use of simple, home-made instructional materials, and techniques for teaching science in poor rural settings; - providing refresher type courses in conjunction with pedagogy units and the regional Inspectorat d'Academie (IA); - increasing the use of computers, new information technology and the internet for both students and teachers, especially in remote rural locations;
- introducing life skills modules into the curriculum (AIDS/HIV, hygiene, civic responsibility);
- setting standards for school directors and putting in place a training program to meet these standards;
- providing in-service training programs for both public and private middle school principals covering basic educational management techniques such as managing personnel, managing money, managing material, and providing instructional leadership; and
- supporting the Directorate for Middle School and General Secondary Education (DEMSG) in the definition of the basic set of skills expected of graduates, new curricula, in the creation of performance-evaluation tools; and ensuring that this work is done in concert with private sector representatives.

***IR 3: Improved governance in the education system.***

The extent to which an education system is able to effectively deliver quality education to citizens is closely tied to governance issues. Illustrative activities include but are not limited to advocacy, awareness raising

and training programs for school principals and local committees focusing on: (1) roles and responsibilities of school management committees; (2) principles of school preventive maintenance; (3) mobilization and transparent management of human, financial and material resources for effective school operations; and (4) local community design and implementation of school improvement plans. In the Ziguinchor Region, the program will provide training, technical assistance, and grants for micro projects dedicated to strengthen the peace advocacy and peace building capabilities of educational authorities, secondary school principals, teachers, and students and improve their understanding of tolerance and mediation.

***IR4: Improved public and private sector partnerships for youth job skills training***

The program will include activities to further develop partnerships with public and private sector organizations to support community colleges, Koranic schools and other vocational schools, and training for more teachers to provide a greater number of youth with market-relevant job skills. USAID will provide support for the development of public and private partnerships (PPPs) to support the government's proposed vocational community schools. These schools will provide job-relevant training in order to redress the mismatch between what is traditionally taught in schools and the needs of the private sector. The schools will target youth from 16 to 24 years old. The private sector is expected to play a prominent role in defining the institutional framework and curriculum for these institutions and, through the use of public-private partnership arrangements, to play a key role in establishing and managing the schools. USAID/Senegal will provide the technical assistance needed to develop public-private partnerships as well as loan guarantees to encourage private sector investment in the vocational schools.

Under a GDA agreement between Microsoft, the Ministry of Education, and USAID, information and communication technology software and training will continue to be provided to schools. The GDA partners are planning to expand this successful program. By providing children with the access and skills needed to guide their own learning using information available on the internet, they will be better prepared to contribute to their country's economic growth and to more fully participate in the global economy.

In achieving these results, the SO will pay special attention to supporting Koranic Schools and promoting peace education in conflict areas:

***Support to Koranic Schools:*** Koranic schools have been for centuries a major instrument for spreading Islamic education and values in Senegal and across the Muslim world. The number of such schools in Senegal is estimated to range from 6,000 to 10,000. Very few of the Koranic schools integrate practical skills and vocational training into their curriculum, which would enable children to compete for jobs or generate income after leaving their schools. The Senegalese government and USAID plan to ensure that Koranic schools continue to promote a non-violent, tolerant form of Islam. The major challenge for these schools is to equip boys and girls with the knowledge and skills they need to earn a living and to live in a world full of diversity, without undermining the importance placed on learning the Koran. The program aims to: 1) improve the relevance of the teaching provided to the socio-economic needs learners will face in their future life; 2) improve the quality of learning and teaching conditions, and; 3) increase community and civil society participation in Koranic schools.

***Peace Education in conflict areas:*** The program will also promote peace education and advocacy among teachers, school principals and students in the Casamance. It will target 50 secondary schools in the districts of Sedhiou in the Kolda Region and Oussouye and Bignona in the Ziguinchor Region. It will provide an integrated package of training, technical assistance, and grants for micro projects dedicated to strengthen the peace advocacy and peace building capabilities of educational authorities, secondary school principals, teachers, and students and improve their understanding of tolerance and mediation. In addition, parents and teachers associations, out of school youth, other entities, and various individuals living in the local communities are targeted to benefit from the program.

By the end of this strategic objective program, it is expected that targeted schools will be better managed by local communities and a greater number of girls and boys will attend middle schools and receive a quality education. USAID's support for community colleges, information technology, peace education and Koranic schools will result in a greater number of youth with market-relevant job skills and contribute to the advance of the peace process in the

Casamance.

## **2.0. COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)**

### **2.1. Locations affected**

The program will be implemented in 6 regions including: Fatick, Kolda, Tambacounda, Ziguinchor, Louga and Saint Louis. The following provides a brief description of the biophysical and socio-economic aspects of Senegal.

#### **a. Biophysical aspects**

Senegal has a surface area of 196,722 km<sup>2</sup>, which is mostly flat without any pronounced relief. A quarter of its territory is arid. As in much of West Africa, environmental degradation has placed intense strains on Senegal's agriculture and natural resources and threatens economic livelihoods. Once expansive forests are in danger of disappearing, which negatively affects rural incomes, biodiversity and stability.

Climate: Senegal has a harsh climate with generally high temperatures, and low to moderate rainfall. The rainy season is limited to a seasonal monsoon, wetter in the south than in the north. The average rainfall varies between 200 – 400 mm from July to September in the north, 400 – 700 mm in the center, and 700 – 1000 mm from May to October in the south. Variations in amounts and timing of annual rainfall cause fluctuations in productivity of the agricultural, livestock and forestry sectors and make food security an issue for most rural dwellers.

Water Resources: The availability of water to a great extent governs land use and conditions of health or existence among most rural populations living at the subsistence level, and also affects the condition of the Senegalese economy. Water supply in the country is erratic, dependent largely on rainfall that varies greatly in amount, distribution and frequency from year to year. Groundwater reserves are still relatively abundant.

Senegal has four major rivers: the Senegal, the Sine-Saloum, the Gambia and the Casamance. Because of low rainfall and high evaporation rates, there are practically no permanent surface bodies of significance except for the lake Lac de Guiers which is replenished by the floods of the Senegal river regulated by two dams. A general decrease in rainfall over the past 30 years has also affected the flood volumes of the main rivers. As a result, large areas previously occupied by mangroves near the mouths of the Sine-Saloum and Casamance rivers have been converted into salt ponds (*tannes*). This means less floodplain agriculture and rangelands, less water for fish breeding and production and decreased habitat for other aquatic animals.

Soils: The soils of Senegal range from dry sandy soils in the north, to tropical ferruginous soils in the central region, and to ferralitic soils in the south. Overall, soil fertility is low and soils are mostly fragile, making them highly susceptible to water and wind erosion. The soil texture of most fresh water river valleys tends to be high in clay and loam content. They are classified as "generally good soils", i.e., they do not have serious limitations and are able to produce good yields of suitable, climatically adapted crops. Most cultivated soils located in the Peanut Basin are "generally poor to moderate soils". These soils have one or more limitations that restrict their use, are usually of fairly low natural fertility, and generally give low to moderate yields of climatically adapted crops under traditional systems of management.

Terrestrial Ecosystems: Senegal's natural landscape grades from the Sahelian grasslands of the north with their widely spaced brushes and trees, to rainforest in the southern lowlands and mangrove swamps in the Lower Casamance region. Senegal displays a typical Sahelian fauna and flora. The extreme dryness experienced by Senegalese ecosystems during the 8-month-long dry season affects biomass production and renders natural vegetation highly susceptible to bushfires. Approximately 40 percent of the country is burned each year, provoking the destruction of pasture, crops, forests and sometimes habitations.

Marine ecosystems: Senegal's coasts are very productive for pelagic fish species. Senegal's river estuaries and deltas serve also as important nurseries for coastal fish, shellfish and shrimp. However, the habitat that supports the fishing industry is being degraded and the stock is being overfished. Nursery grounds that are accessible to marine species

in the Senegal River Delta are only 5% of what they used to be. Animals that rely on fish for food, such as endangered sea turtles, birds and dolphins, are also affected by the decrease in the fish populations.

## **b. Socio-economic context**

The population of Senegal is growing at a relatively high rate of 2.6 percent per year, having increased from approximately 3.2 million at independence in 1960 to about 10 million currently. Over 60% of Senegal's population relies on agriculture for their livelihoods (17% are in fisheries) and another 20% depend on income from agricultural secondary markets. Agriculture and fisheries contribute only 12% of GDP but represent about 57% of exports, indicating that there is room for increased growth. The actual amount of suitable agricultural land is low (19%) so population density figures can be misleading. Actual population density in productive lands can reach over 300 people/hectare. Most of this suitable land is rain-fed agriculture, with only 1.5% under irrigation. Rain-fed agriculture remains a low investment, low yield activity and won't be able to contribute more significantly to GDP until private sector investments are increased, agriculture is further diversified, and new technologies adopted.

Senegal's rural population is also highly susceptible to droughts and other disruptions in agricultural production and therefore frequently at risk of food insecurity. During droughts or periods of poor cereal production, farmers migrate towards the ocean to take up fishing, adding additional strain on that resource. Fisheries supply 70% of the animal protein consumed in Senegal.<sup>1</sup> In 2002, the fishing industry contributed 2.3% to the GDP and about 12.5% of the GDP of the primary sector. The World Bank reports that Senegal's fisheries employ both directly and indirectly some 600,000 people, or about 17% of the country's active workforce. Within the last ten years, the amount of fish caught has been abundant with the largest total occurring in 1999 when 395,000 tons of fish were caught, of which 124,000 tons were exported. The commercial value of the export was over US \$300 million. Fish is the number one export with between a 25% and 30% representation of the country's total exports.<sup>2</sup> The exportation of fish has even surpassed that of the peanut industry.

## **2.2. National Environmental Policies and Procedures**

The policy environment for natural resource management and biodiversity conservation has improved over the last 10 years. Senegal now has a broad legal basis for environment and conservation, yet many of the laws are not yet fully applied and some contradictions remain. Senegal has signed and ratified all the Rio international conventions. With USAID funding, a National Environment Action Plan (NEAP) was completed in 1997 that lays the framework for cooperation among all ministries for environmental policy and dialogue. This resulted in the new Environment Code that was established in 2001. The NEAP was also followed by the National Plan to Fight Against Desertification to develop specific actions to combat desertification. A *Biodiversity Strategy* was adopted that lays out priority areas for biodiversity conservation. The Decentralization Code of 1996 has had considerable impact on how the environment is managed as it transferred jurisdiction for natural resource management to local governments.

The Forestry Code, revised in 1998, set conditions for the transfer of forest management to local governments which included the development of forest management plans. A new Forestry Action Plan was developed in 2005 to improve implementation of the Forestry Code. The *Hunting Code* is currently being up-dated and will experiment with local management of the protected areas. This corpus of Ag/NRM-related legislation and policy guidelines is well conceived but has yet to be fully applied. With this proposed SO program, the skills, competence and attitudes of students will be improved through vocational education. The increased access to basic middle education and job-skills training will be accompanied by close attention of the relevance of education, with family life and environmental education modules considered as an integral part of the curriculum.

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

The goal of the USAID Youth Education Program in Senegal will be achieved through the following IRs: (I):

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<sup>1</sup> As stated in section 36 of "Republic of Senegal, Fishery Sector Strategy", June 14, 2005.

<sup>2</sup> As stated in section 31, 33 and 34 of "Republic of Senegal, Fishery Sector Strategy", June 14, 2005.

*Increased access to basic education, especially for girls and vulnerable children; (2): Improved quality of education in supported schools; (3): Improved governance in the education system; (4): Improved public and private sector partnerships for youth job skills training.* Key activities planned under the program include:

**School construction/rehabilitation:** USAID will continue to help the GOS address the huge unmet needs for school infrastructure. The program will build 18 new middle schools in villages and town where previously there were none, and rehabilitate 6 old facilities that are in disrepair. This will include the construction or rehabilitation of classrooms, latrines and wells for up to 240 students per school. Each classroom will be nine meters long and seven meters wide. USAID will also improve the quality of middle school education through teacher training, and increased parental involvement. In addition, the program emphasizes community participation in building and managing the schools to reinforce the crucial role that parents and community leaders play in the success of their children's education. The construction and rehabilitation of any individual building will not exceed more than 10,000 sq. ft. The potential for adverse environmental impact is minimal considering the relatively small size of the schools, but mitigating measures are identified in section 4.0 to minimize impact. **A Negative Determination with Conditions** as per 22 CFR 216.3 (a) (2) (iii) is recommended for these construction/rehabilitation activities which entail physical interventions. Pursuant to 22 CFR 216.3 (a) (7), **a Deferral** will be recommended for any individual construction/rehabilitation activities exceeding 10,000 sq. feet, and separate environmental assessments will be prepared for each activity for appropriate review.

**Information and communication technology:** These activities will continue to be an integral part of USAID/Senegal's education program. Under a GDA agreement between Microsoft, the Ministry of Education, and USAID, software and training will continue to be provided to schools. The GDA partners are planning to expand this successful program. By providing children with the access and skills needed to guide their own learning using information available on the internet, they will be better prepared to contribute to their country's economic growth and to more fully participate in the global economy. USAID and partners will provide technical assistance, training and technical equipment which will not affect the physical environment in any way and meet the criteria for **Categorical Exclusion** under to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v).

**Vocational Community schools:** USAID will provide support for the development of public and private partnerships (PPPs) to support the government's proposed vocational community schools. These schools will provide job-relevant training in order to redress the mismatch between what is traditionally taught in schools and the needs of the private sector. The schools will target youth from 16 to 24 years old. The private sector is expected to play a prominent role in defining the institutional framework and curriculum for these institutions and, through the use of public-private partnership arrangements, to play a key role in establishing and managing the schools. USAID/Senegal will provide the technical assistance needed to develop public-private partnerships as well as loan guarantees to encourage private sector investment in the vocational schools. Activities planned under this component (not including construction) will not affect the physical environment in any way and meet the criteria for **Categorical Exclusion** under 22 CFR, 216.2 (c) (2)(i) and (v).

**Support to Koranic Schools:** Koranic schools have been for centuries a major instrument for spreading Islamic education and values in Senegal and across the Muslim world. The number of such schools in Senegal is estimated to range from 6,000 to 10,000. Very few of the Koranic schools integrate practical skills and vocational training into their curriculum, which would enable children to compete for jobs or generate income after leaving their schools. The Senegalese government and USAID plan to ensure that Koranic schools continue to promote a non-violent, tolerant form of Islam. The major challenge for these schools is to equip boys and girls with the knowledge and skills they need to earn a living and to live in a world full of diversity, without undermining the importance placed on learning the Koran. The program aims to: 1) improve the relevance of the teaching provided to the socio-economic needs learners will face in their future life; 2) improve the quality of learning and teaching conditions, and; 3) increase community and civil society participation in Koranic schools. USAID will provide technical assistance, educational materials, and training. These activities are not expected to affect the physical environment in any way and, therefore, meet the criteria for **Categorical Exclusion** under 22 CFR, 216.2 (c) (2)(i) and (v).

**Peace Education in conflict areas:** Activities will promote peace education and advocacy among teachers, school principals and students in 50 secondary schools in the districts of Sedhiou in the Kolda Region and Oussouye and Bignona in the Ziguinchor Region. Major activities include exclusively training, provision of technical assistance

and information that do not affect the environment in any way and meet the criteria for **Categorical Exclusion** under 22 CFR, 216.2 (c) (2)(i) and (v).

**Teacher training, provision of educational material and capacity building for improved governance in the educational system.** These activities are expected to have no environmental impact and thus meet the criteria for **Categorical Exclusion** under 22 CFR, 216.2 (c) (2)(i) and (v).

#### 4.0. RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

Based on the environmental review procedures and the discussion included within this amended IEE, the following determinations are recommended:

1. A **Categorical Exclusion** is recommended for IRs 2, 3, and 4 for program supported technical assistance, training and supply of educational materials, capacity-building and performance monitoring activities pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v).

2. A **Negative Determination with Conditions** is recommended for IR 1: Increased access to basic education, especially for girls and vulnerable children pursuant to 22 CFR 216.3 (a) (2) (iii), for the rehabilitation and construction activities. Annex 1 gives the specifications for the construction of new classrooms. Conditions include 1) guidelines for small scale development activities (annex 2) are followed; 2) construction of any individual building will not exceed 10,000 square feet; and 3) best practices for small scale construction identified in the [www.encapa.africa](http://www.encapa.africa) Africa Bureau Environmental Guidelines for Small Scale Activities will be followed.

#### **Monitoring:**

As required by ADS 204.5.4, the SO13 Team and activity implementing partners 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 SO Team shall also monitor the need for additional environmental review based on IEE recommendations. SO13, in collaboration with implementing partners, 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.

#### 5.0. SUMMARY OF FINDINGS

This IEE is directed at the entire Strategic Objective (SO 685-0013) which addresses youth education. The program will support technical assistance, supply of educational materials, monitoring and evaluation, training activities, and school construction and rehabilitation. The construction or rehabilitation activities will be focused on training facilities and restrooms where they do not exist in a functional condition. This program will also support training for teachers, school principals and local community leaders to manage their schools, and promote the use of information and communication technologies in targeted schools. In addition, activities will include support to vocational community schools, Koranic schools and peace education through the provision of technical assistance, training, commodities and/or construction services.

1. Pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v), **Categorical Exclusions are** recommended for IRs 2, 3, and 4 for program-supported activities involving technical assistance, training and education, institutional strengthening, supply of educational materials, capacity-building and performance monitoring activities, awareness raising, communications and information, regulatory and policy related activities that have no physical interventions and no direct effects on the environment.

2. As per 22 CFR 216.3 (a) (2) (iii), a **Negative Determination with Conditions** is recommended for IR 1: Increased access to basic education, especially for girls and vulnerable children for the execution of small construction/rehabilitation activities that include schools, wells, latrines, restrooms, and environmental sanitation improvement around schools. The conditions are that any individual building does not exceed 10,000 square feet and

construction should be conducted in a manner consistent with best practices as outlined in the Small-Scale Construction Chapter of the USAID Environmental Guidelines for Small Scale Activities in Africa, [www.encapafrika.org](http://www.encapafrika.org). Tree-planting activities associated with school construction and/or rehabilitation also need to follow the EGGSSA in relation to reforestation work, especially the use of exotic species.

*Water and Sanitation conditions:*

Both water supply and sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in EGSSAA Chapter 16: Water Supply and Sanitation. The SO Team and implementing partners should closely examine this chapter, as it provides a thorough discussion of program design and implementation issues that can help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, "Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in Ethiopia," by Catholic Relief Services and USAID, July 31, 2003.

Water quality testing is essential for determining that the water from a constructed water source is safe to drink and to determine a baseline so that any future degradation can be detected. Among the water quality tests which must be performed are tests for the presence of arsenic. Any USAID-supported activity engaged in the provision of potable water must adhere to Guidance Cable State 98 108651, which requires arsenic testing. That 1998 cable also anticipates "practical guidelines on sampling and testing for arsenic" that were then under development. The EGAT Bureau completed these guidelines, and the Africa Bureau has packaged them in a document titled, "Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa." The SO team must assure that the standards and testing procedures described in this guideline document are followed for potable water supply activities under this program.

**3.** Pursuant to 22 CFR 216.3 (a) (7), a **Deferral** is recommended for any individual construction/rehabilitation activities exceeding 10,000 sq. feet. A separate environmental assessment will be prepared for each activity for appropriate review. No funds will be disbursed until these assessments have been approved.

**Monitoring:**

As required by ADS 204.5.4, the SO13 Team and activity implementing partners 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 SO Team shall also monitor the need for additional environmental review based on IEE recommendations. SO13, in collaboration with implementing partners, 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.

**Technical Specifications for the Youth Education Program classrooms**

**Description of the construction work**

The construction work includes:

- One four classroom building for about 240 students.
- One four latrine bloc.

**Construction layout:**

The classroom building and the latrine bloc layout shall take into account the optimum sunlight, winds direction and other weather constraints. It shall also have a good fit into the existing school buildings setting with regard to their location, the location of existing trees and sanitation requirements.

**Technical specifications of the buildings:**

**A. The classroom building:**

**1) General description:**

The building will be composed of the following components:

- Foundations composed of 14 footings, 0.20 x 0.15 m reinforced concrete girders and 20cm x 20 x 40 solid agglomerated gravel blocks;
- Walls made of 15cm x20x40 hollow blocks with 14 posts and 15x15cm girders;
- Concrete floor;
- Steel roof-frame;
- Steel door and windows;
- Corrugated aluminum sheet roofing;
- Plywood ceiling with a steel frame.

**2) Dimensions:**

Classrooms shall meet the following requirements:

- The area per student of 1 to 1.2 square-meters per student including teacher's space and free circulation area;
- A maximum of 60 students per classroom.
- Suggested dimensions for each classroom are the following:
  - Length: 9.00 meters,
  - Width: 7.00 meters,
  - Classroom area: 63.00 sq. meters.
- Covered verandah: 1.70x9,20 meters for each classroom
- Floor level shall be at least 0.45 meter above ground.

**3) Doors and windows:**

Metal doors and windows including frames will be installed.

All building components shall comply with engineering requirements. Shop drawings shall be submitted to USAID for approval.

## **B. The latrine**

### **1) Description:**

A sanitation bloc comprising four latrines similar to the Ventilated Improved Pit will be constructed. Latrines shall meet the following characteristics:

- ventilated,
- equipped with a fly screen over the top of the vent,
- equipped with a seat which is structurally stable and washable.

The basic components of a latrine are the following:

- a two compartment pit which must be naturally stable;
- a stable concrete pit cover with a seat and two drop holes to be used alternately for defecation (the hole of the unused pit compartment shall be close);
- a vent pipe with a fly screen over the top and;
- a roof superstructure over the drop holes.

While one of the latrine pit compartments is in use, the second one's sludge will be closed for two years to allow a complete decomposition of the sludge it contains. Such materials, sufficiently stable and free of health risk at end of this two years period, can be used as a soil fertilizer.

### **2) Technical specifications**

- The latrine block will be composed of four defecation rooms. Each room is connected to a two adjacent compartment pit. One pit compartment is used at a time.
- The two-compartment latrine pit will be 1.5 meter long, 1.5 meter deep and 1 meter large. It will be cement block lined. A separation wall will make the two compartments. A 7 centimeters thick reinforced concrete slab with two-drop holes will cover the pit. In each room, two drop-holes will be created on the reinforced concrete slab. One of the drop holes will be equipped with a seat whilst the second will be closed and sealed.
- The superstructure will be composed of a four walls cabin, a roof, a door and a PVC pit ventilation pipe. The cabin ventilation will be made of adequate cement openings.
- The latrine bloc shall be properly located to avoid obstruction to the free flow of air across the rooms and the vent pipe.

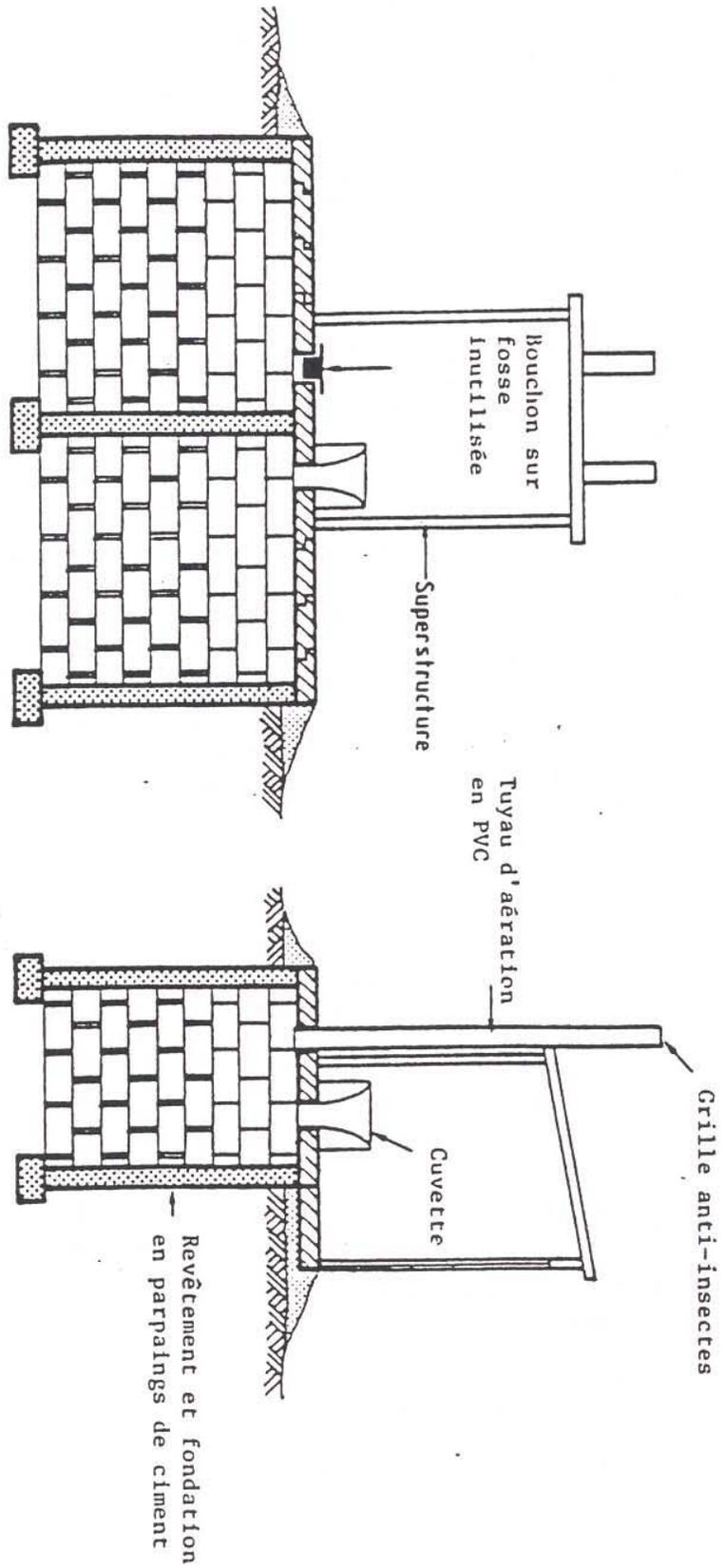


Figure 1 (b). Autre solution : le cabinet d'aisances amélioré à double fosse ventilée au Botswana.

Guidelines for Small-Scale Development Activities

**(To be used in connection with the Youth Education Program program, esp. latrine, well, and classroom rehabilitation or construction)**

A. Latrines

Community sanitation programs will be established at each primary school site where latrines are installed and, where feasible, in surrounding areas, to promote family latrine use. School officials will be trained as trainers to conduct training and other educational activities to stress the importance of hygiene and proper sanitation to good health and will advise APEs on latrine placement in their own compound.

The Youth Education Program and its grantees will, for the purpose of this activity, be familiar with established technical standards and specifications for the construction and siting of improved pit latrines, as formulated under low cost sanitation programs in other countries in Africa and specified in attachment 1.

The Youth Education Program grantees will have overall responsibility for the siting and construction of the latrines. A decentralized approach will also be taken for latrine construction to ensure a large community involvement.

B. Rehabilitation and Construction of Water Points

The Youth Education Program proposes to rehabilitate existing wells and establish new hand-dug wells in schools where they are technically feasible and lack of water makes good hygiene difficult or impossible. It is assumed that each water point will be equipped with drainage system and a dry well.

In the course of activity implementation, the Youth Education Program grantee(s) will work with established technical standards and specifications for the construction of hand-dug wells and those for operation and maintenance.

Final water point site selection will be made in conjunction with the community leaders and school personnel. A decentralized approach will be taken to ensure community participation and knowledge transference at all stages of well construction/rehabilitation.

The Youth Education Program grantee(s) will train peri-urban and village community members in community education for the correct utilization of the well and the proper use and treatment of water (including the transport and storage of water), and the general relationship of water to health.

C. Classroom Rehabilitation/Construction

The Youth Education Program proposed to rehabilitate or construct classrooms in schools that have inadequate facilities to the point that it discourages parents from sending their children, especially girls, to school.

II. Impacts and Mitigation

The following environmental issues will be addressed by the Youth Education Program during implementation of the following activities:

A. Water Point Rehabilitation and Construction

1. The extraction of groundwater from wells can cause well and aquifer pollution unless correct siting, construction, and usage procedures are adhered to. Consequently:

- a. All well siting will be the ultimate responsibility of the Youth Education Program grantee(s). All wells will meet the siting requirements in terms of acceptable distance from latrine installations, proper drainage of

excess water and other sources of possible groundwater contamination.

- b. All wells shall be constructed and/or rehabilitated based on established technical standards and specifications for siting, construction and usage. This will include proper sampling and analysis of water to assure safety of water supply (i.e., levels of boron, nitrate, conductivity, chloride, pH, etc.) and a determination of the maximum number of wells that a given aquifer can sustain based upon yield estimates if several wells are nearby. Where the rehabilitation process may require abandonment of the existing wells, abandonment shall be done in a manner that ensures non-pollution of the aquifer.
- c. All wells will be lined with concrete well rings to prevent possible contamination by parasites and disease-causing bacteria.
- d. All wells will be raised adequately above ground level to prevent contamination entering into the well shaft. The means of extraction will be devised to avoid contamination. A concrete apron will be constructed to ensure correct drainage of wastewater away from the well head and into a dry well to avoid standing water.
- e. All wells will be thoroughly disinfected after construction. Disinfection of wells shall be done in a manner that ensures no increase in pollutant concentration following the disinfection process.
- f. All well intervention will be accompanied by a community participation water and health education program through the APE.

Both water supply and sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in *EGSSAA Chapter 16: Water Supply and Sanitation*. The SO Team and implementing partners should closely examine this chapter, as it provides a thorough discussion of program design and implementation issues that can help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, "Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in Ethiopia," by Catholic Relief Services and USAID, July 31, 2003.

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#### B. Latrine Construction

Unless correctly sited, latrines can be responsible for well and aquifer pollution. Consequently:

- a. All latrine siting and construction will be the ultimate responsibility of the Youth Education Program grantee(s).
- b. All improved latrine construction shall be done according to established standards and specification for construction and siting of improved latrines.
- c. In unstable ground, the latrine will be lined.
- d. Where existing latrines are close to a source of water such as a river or in areas of high water table, the latrine shall be moved to higher ground.

e. All latrine intervention will be accompanied by a community participation personal hygiene and health education program through the APE.

### C. Classroom Rehabilitation or Construction

Although the construction and rehabilitation of small-scale buildings is expected to be minor, adverse environmental effects from construction and construction material can occur. Consequently:

a. The majority of materials used will be of local origin and will not contain any hazardous materials such as asbestos or formaldehyde. Excess construction material will be recycled wherever possible and disposal of unusable material will be done in an environmentally sound manner.

b. Construction will not require the use of any heavy equipment, such as bulldozers or large cranes.

c. If paint is used, empty cans will be disposed of in an environmentally safe manner away from areas where it can contaminate water sources.

d. Areas of construction and/or rehabilitation will be controlled to minimize erosion. Any runoff from the construction site which may be high in suspended solids or which may cause disruption to local drainage patterns will be monitored closely by the Youth Education Program staff and will be immediately addressed.

e. During the construction, measures will be taken to minimize standing water. If suppression of mosquitoes is found to be needed in standing water, soap will be added to the water to kill the larvae. No synthetic chemical pesticides will be used.

f. During the construction, measures will be taken to minimize dust and noise. Local village labor is expected to walk to the construction site and to use latrines already in the vicinity.

g. Care will be taken to improve the surroundings of schools where classrooms are being constructed or rehabilitated. Trees and grass will be planted and/or other measures taken that will add aesthetically to the renovation site while minimizing opportunities for destructive runoff and erosion.

## III. Monitoring

### A. Water Point Rehabilitation and Construction

The Youth Education Program staff, with input from local government organizations for rural water will have overall responsibility for monitoring ongoing water point rehabilitation and well construction progress. Samples of water from water points will be tested for water quality monitoring. Selected and trained community members and school staff will have the continued responsibility to monitor water quality and general well conditions after project completion.

### B. Latrine Construction

The Youth Education Program staff has the responsibility for ongoing monitoring of the latrine construction phase. Selected and trained community members and school staff will have the continued responsibility to monitor the latrine status and maintenance after project completion.

## IV. Evaluation Program

During the implementation of this program each well and latrine will be subject to local community and government staff approval and evaluation.

During the life of the activity, and as long thereafter as USAID continues to fund activities conducted under the Youth Education Program, USAID field staff will review any data collected by the concerned government

departments, and assess it for possible changes in the characteristics of the water supply and sanitation interventions.

Environmental issues will be one of the key items addressed during any monitoring and evaluation. Also, USAID will closely monitor implementation and will utilize the Africa Bureau **"Environmental Guidelines for Small Scale Activities in Africa"**.