

**INITIAL ENVIRONMENTAL EXAMINATION  
OR  
CATEGORICAL EXCLUSION**

**PROGRAM /ACTIVITY DATA:**

**Program/Activity Number:** 685-011

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

**Program/Activity Title:** Increased Economic Growth through Trade and Natural Resource Management

**Funding Begin:** FY06

**Funding End:** FY10

**LOP Amount:** \$35,558,000

**Sub-Activity Amount:** N/A

**IEE Prepared by:** Peter Trenchard, USAID/Senegal

**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  

**SUMMARY OF FINDINGS**

The strategic objective of the USAID/Senegal Economic Growth Office is "Increased Economic Growth through Trade and Natural Resource Management." The program is specifically designed to provide assistance to the Government of Senegal's priorities as outlined in the Accelerated Growth Strategy (AGS) and the Poverty Reduction Strategy Paper (PRSP). It also addresses the goals articulated in USAID's "Strategic Framework for Africa" to enhance economic growth, agriculture, natural resource management and improved governance.

The strategy is premised on the arguments that creating an enabling environment that is supportive of increased trade and competitiveness, facilitating business development in competitive sectors, improving natural resource management and local governance will transform rural areas by providing an impetus for wealth creation. Experience has shown that properly managed ecosystems can create wealth to alleviate poverty. In light of the above, the program will focus on export-oriented, job-creating economic growth as a source for wealth creation and poverty alleviation and improved local management of the resource base.

The following environmental determination is recommended under this IEE amendment:

- 1) For IR 1: Increased Trade of Agricultural and Natural Resource Based Products:
  - a) A **negative determination with conditions** is recommended per 22CFR 216.3(a) (2) (iii) for activities creating or expanding income-generating enterprises and resources management systems. These include among others: agricultural processing, textiles production, harvest and marketing of timber and non-timber forest products, horticulture, fisheries, domestic energy, tourism as well as all technical services and training provided in these sectors. This IEE describes a specific set of steps that will be taken to ensure adequate environmental review and mitigation. With implementation of the recommended mitigation and monitoring measures, these activities are not expected to have significant adverse effects on the environment.

No timber harvesting activities will be conducted in relatively undisturbed forests without prior completion and approval of an environmental assessment. Part Foreign Assistance Act, Part I, Section 118 - Tropical Forests forbids U.S. Government support for "the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner which minimizes forest destruction and that the proposed activity will produce positive economic benefits and sustainable forest management systems." No environmental assessment is needed at this time because timber harvesting is only expected in forests which are already heavily disturbed by human use.

- b) A **negative determination** is also recommended for the loan guarantees under the Development Credit Authority per 22 CFR 216.3(a)(2)(iii) related to credit being made available for productive activities.
- 2) For IR 2: Improved Sustainable Management of Natural Resources and Biodiversity:
- a) A **categorical exclusion** is recommended for under this intermediate result, per 22CFR216.2(c) (2) (i) for activities involving education, technical assistance, training; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) for document and information transfer activities.
  - b) A **negative determination with conditions** is recommended per 22 CFR 216.3(a)(2)(iii) for the following activities that are not expected to have significant adverse effects on the environment but could lead to negative impacts if not designed and implemented with the viability of the natural area in question: development of protected area management plans; development of sustainable financing mechanisms for national parks; co-management of protected areas with local communities; promotion of agreements, approved plans or memorandums of understanding to solidify community rights to a resource.
- 3) For IR# 3: Improved Enabling Environment for Sustainable Growth: a **categorical exclusion** is recommended for all activities under this intermediate result, per 22CFR216.2(c)(2)(i) [education, technical assistance, training]; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) [document and information transfer].
- 4) For IR#4: Improved Transparent and Accountable Management of Resources: a **categorical exclusion** is recommended for all activities under this intermediate result, per 22CFR216.2(c)(2)(i) [education, technical assistance, training]; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) [document and information transfer].

**Monitoring:**

As required by ADS 204.5.4, the SO11 Team and activity implementing partners will "actively monitor and evaluate whether the conditions associated with these activities are being implemented effectively and whether there are new or unforeseen consequences arising during implementation that were not identified and reviewed in accordance with sound environmental management. USAID/Senegal commits itself to incorporating sound environmental review principles and screening, capacity building, monitoring, evaluations, and mitigation procedures specified in this IEE. The SO Team shall also monitor the need for additional environmental review based on IEE recommendations. SO11, 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. Determinations and conditions associated with this IEE meet environmental standards established by the Government of Senegal.

**APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:**  
Increased Economic Growth through Trade and Natural Resource Management

**CLEARANCE:**

Director, USAID/Senegal \_\_\_\_\_ Cleared \_\_\_\_\_ Date May 24, 2006 \_\_\_\_\_  
Erin Soto

**CONCURRENCE:**

Bureau Environmental Officer \_\_\_\_\_ cleared \_\_\_\_\_ Date June 28, 2006 \_\_\_\_\_  
Brian Hirsch

Approved  \_\_\_\_\_  
Disapproved \_\_\_\_\_

**File No.**

**ADDITIONAL CLEARANCES:**

Mission Environmental Officer \_\_\_\_\_ Cleared \_\_\_\_\_ Date May 23, 2006 \_\_\_\_\_  
Aminata Badiane

EG Office Director \_\_\_\_\_ Cleared \_\_\_\_\_ Date May 23, 2006 \_\_\_\_\_  
Peter Trenchard

Deputy Director \_\_\_\_\_ Cleared \_\_\_\_\_ Date May 23, 2006 \_\_\_\_\_  
Acting Lisa Franchett

**OPTIONAL CLEARANCE:**

Regional Legal Advisor: \_\_\_\_\_ Cleared \_\_\_\_\_ Date June 13, 2006 \_\_\_\_\_  
Joel Sandefur

Regional Environmental Advisor: \_\_\_\_\_ /cleared/ \_\_\_\_\_ Date June 10, 2006 \_\_\_\_\_  
Robert Clausen

## **INITIAL ENVIRONMENTAL EXAMINATION**

### **PROGRAM/ACTIVITY DATA:**

**Program/Activity Number:** 685-011

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

**Program/Activity Title:** Increased Economic Growth through Trade and Natural Resource Management

### **1.0 BACKGROUND AND PROJECT DESCRIPTION**

USAID/Senegal's Strategic Objective for economic and environmental activities is "Increased Economic Growth through Trade and Natural Resource Management." This Economic Growth program is specifically designed to provide assistance to the Government of Senegal's priorities as outlined in the Accelerated Growth Strategy (AGS) and the Poverty Reduction Strategy Paper (PRSP). It also addresses the goals articulated in USAID's "Strategic Framework for Africa" to enhance economic growth, agriculture, natural resource management and improved governance.

The strategy is premised on the argument that creating an enabling environment that is supportive of increased trade and competitiveness, while improving natural resource management and local governance, will transform rural areas by providing an impetus for wealth creation. Experience has shown that properly managed ecosystems can create wealth to alleviate poverty. The focus of this economic growth must extend to the poor if it is to have a direct, immediate impact on reducing poverty. In light of the above, the program will focus on export-oriented, job-creating economic growth as a source for wealth creation and poverty alleviation.

The program goal over the five years of this strategy is to promote real, transformative changes in Senegal's natural landscape and reverse the persistent trend of lower incomes, environmental degradation and increased conflicts over scarcer resources. The Program will demonstrate how more effective and accountable governance and sustainable exploitation of agricultural and natural resources can contribute significantly to increasing economic growth and reducing poverty.

#### **1.1 Purpose and Scope of the IEE**

This IEE evaluates activities of the entire SO11 for Increased Economic Growth through Trade and Natural Resource Management in Senegal (EG) to determine the foreseeable effects of the proposed actions on the environment. The IEE includes all on-going programs and projects previously covered by IEEs for USAID/Senegal's private sector enterprise development, democracy and governance, and agriculture and natural resource management strategic objectives. This includes two major contracts already being implemented: the Agriculture and Natural Resource Management Program (known locally as Wula Nafaa) and the Program to Support Accelerated Growth and Increased Competitiveness (SAGIC). The prime contractor for both of these projects is the International Resources Group (IRG).

#### **1.2 Description of Activities**

The EG program is designated as a total of \$35.5 million, five-year activity. The EG program will focus predominately on increasing revenues from agricultural, terrestrial and aquatic natural resource products to promote job-creating economic growth and will thus directly contribute to Senegal's Accelerated Growth Strategy. The program will also remain flexible to take advantage of targets of opportunity in other sectors if they seem particularly promising, such as information technology. A strong emphasis will be placed on the sustainable management of natural resources and biodiversity to maximize profits from rural areas while ensuring that the source of wealth and natural capital is better managed. Barriers to this growth, as well as incentives, will be addressed through policy reform. Finally, governance of this natural capital will be strengthened to improve good stewardship of resources and reduce poverty.

## Intermediate Results

In order to achieve the Strategic Objective (SO), four Intermediate Results (IRs), to be reached through a series of Sub-Intermediate Results (IRs) and related activities, are to be accomplished. Activities listed below under the IRs are meant to be illustrative, but also reflect USAID/Senegal's ongoing programs and the most reasonable projection of anticipated programs.

IR 11.1: Increased Trade of Agricultural and Natural Resource based Products

IR 11.2: Improved Sustainable Management of NR and Biodiversity

IR 11.3: Improved Enabling Environment for Sustainable Growth

IR 11.4: Improved Transparent and Accountable Management of Resources

Expected results at the close of the SO are: increased volume of trade, revenue and jobs in targeted sectors; increased agricultural diversification and productivity of non-traditional and natural products; increased number of hectares of natural forests, coastal or protected areas under improved, local management; increased and improved government promotion and management of public-private partnerships to provide goods and services; and increased capacity of local governments to provide transparent, accountable leadership.

Each IR is briefly outlined below:

### IR 11.1: Increased Trade of Agricultural and Natural Resource based Products

The EG program will focus on international and regional export-oriented activities to increase household and enterprise revenues, predominately in the agriculture, fisheries and natural resource sectors. Productivity will be increased through access to improved technologies, business development services and better access to market information. Other secondary markets such as textiles and information technology may be identified to provide new markets for local labour and entrepreneurs. Potential sectors to be considered include *inter alia*: non-traditional agricultural and natural products (such as fonio [an indigenous cereal], baobab fruit, juice from hibiscus flowers, gums, colorants and essential oils); dairy and cattle products, tourism and eco-tourism, small game hunting, timber, marine fisheries (including non-farmed shrimp, conch, oysters and game fishing) and horticultural products (green beans, okra, and tomatoes among others). However, the Program will remain flexible to take advantage of opportunities outside of the agricultural and natural resource sectors on a case-by-case basis. Information technology or textiles are prime examples of sectors that can have wide-spread impact that can be pursued under this Program as a target of opportunity.

The Program will strengthen high value sectors through activities such as: promoting value added processes; improved production; improved marketing and business management, transportation, packaging, labeling, branding, access to credit and other business services. In addition, improved seeds and seed distribution; diversification of agriculture production; environmentally sustainable agriculture methods and technologies adopted; and organic or fair-trade certification will be pursued to increase production and value. These strategic, low cost actions can greatly increase efficiencies and help tap the great potential of the high value sectors.

Although activities under this IR will mostly focus on revenue generating activities, other significant benefits will result from them as well. These include: increase in food security through crop diversification and the promotion of non-traditional agricultural products; increased capacity and empowerment of local communities to negotiate agreements and control land; increased access to materials that support the household economy (medicinals, forest foods, livestock fodder, building materials, furniture and utensils, etc.); and enhanced services that include access to and maintenance of clean water supplies, improved soil conservation and fertility, nutrient cycling, waste removals, the conservation of carbon stocks (global climate change – possible income generation through accounting schemes) and microclimate regulation. These benefits will also assist in obtaining the results of IR 11.2 for improving sustainable natural resource management.

Two sub-intermediate results (sub-IRs) will support the achievement of this IR.

*Sub-IR 11.1.1: Expanded availability of products in compliance with international market standards*

While Senegal has a wide-range of products with the potential for export, the quality of such goods sometimes are not sufficient to meet what the market demands. Technical assistance and training will assist local enterprises meet the standards of regional and international markets. This sub-result will target further transformation of Senegalese products within the country and increase value of local products.

*Sub-IR 11.1.2: Improved access to market*

Improved access of Senegalese products to markets will help increase the competitiveness of products and local businesses. Strengthening of selected value-chains will increase competitiveness and bring more local products to market nationally, regionally and internationally. The economic growth program will focus on specific value chains to increase exports and the number of enterprises selling into the domestic and international market.

While the Program will support additional sub-sectors, the following are already being pursued, or are planned to be pursued in FY 2006 under this IR:

**Non-timber forest products** including honey, fruits, medicines, traditional pharmacopoeia, tanning extracts, a variety of gums, fiber, and oil products are frequently just as important as fuel wood, charcoal, or timber for local incomes. The existing USAID project, Wula Nafaa, has made significant progress in increasing local revenues from these products. The SO will continue to focus on the sustainable management of selected forest products as a way to increase rural revenues, exports and provide a catalyst for improved local governance of natural resources. Products already targeted by the program include madd, jujube and baobab fruits, honey, Karaya gum, shea nut, gum arabic, jujube, moringa, cashew and palm oil.

**Timber** still is being harvested in the Casamance and parts of Tambacounda, mostly illicitly. Senegal allows the harvest of some timber species but only on the condition that it is not sold outside of the administrative region it was harvested. Only finished products are able to be sold with permission. However, controls are not sufficient nor do management plans exist for the sustainable harvest of timber. USAID will help the Senegal Forestry Department to develop sustainable forest management plans for selected forests designated for timber extraction. The program will also work with the Senegal Forestry Department to certify products produced from these forests using internationally recognized standards.

**Other wood products** including fuelwood and charcoal are lucrative natural products currently extracted unsustainably from Senegal's remaining forest estate. A well organized, powerful charcoal cartel still exists that controls virtually all charcoal production and sales to the urban areas. Profits from this market usually exclude local communities, as the permits to produce charcoal from forests in public areas are given by the Forestry Department directly to these businesses. However, a community can gain control over forested areas if it develops a management plan approved by the Forestry Department, and this will enable them to directly negotiate with the cartel. The critical question at this time for both public and community forests is the choice of management approach that optimizes economic benefits from charcoal while safeguarding ecological services provided by these forests to the communities and ensures adequate regeneration and productivity for current and future generations. In other words, what are the sustainable extraction rates and the most sound management practices? The program will address this question by collecting and applying the best available site specific information on forest productivity and health (including growth rates) to design and implement extractive activities in a sustainable manner. New information generated by the project will be subsequently integrated into the operational forest management plans and used to fine-tune ground level activities. This information will also be shared with other partners implementing similar programs.

**Hunting:** In some areas of Senegal, (especially in Tambacounda, Kolda, and Fatick), hunting concessions exist that have been given to private individuals or enterprises. In theory, these concessions should be providing benefits to local populations, which is not always the case. The

program will assist local communities to negotiate with concessionaires to optimize the sustainable benefits they receive from these areas. The project will also work with the communities to improve baseline information related to the wildlife population so that estimates of population size and reproductive capacity are taken into consideration when harvesting quotas are negotiated and established. USAID will continue in providing policy assistance to improve Senegal's hunting regulations and to incorporate these activities into integrated land use management plans, protocols or conventions.

**Agricultural** products will be promoted for export markets. The Program will provide technical assistance and a loan guarantee program through the Development Credit Authority to increase investments in the agricultural sector. Sub-sectors will include non-traditional products such as fonio and hibiscus as well diary, cashew, hibiscus, seafood products, cereals and other traditional agricultural sub-sectors. Technical assistance will include assistance to farmers and farmer associations as well as private enterprises and their associations.

#### IR 11.2: Improved Sustainable Management of Natural Resources and Biodiversity

Recognizing that continued growth depends on the sustainable use of the resource base, the program will directly address broader environmental issues to ensure sustainability of natural resources. Clear links have been made between the conservation of natural capital, increased economic opportunities and local governance that will be further expanded upon through this program. An emphasis will be placed on ecosystem management in the south-eastern forested areas of Senegal and the coastal regions of Casamance and the Sine-Saloum Delta; however some of the same principles may be applied and encouraged in other geographic areas as well.

In this context, USAID/Senegal will contribute to global efforts to reduce tropical deforestation, improve carbon sequestration, conserve biological diversity, improve forestry practices, involve local people in forest management and draw increased attention to the non-timber value of forests

The EG Program will provide technical assistance and material support to rural communities and the Government of Senegal to develop and establish sustainable and more equitable local forestry management systems to replace the current archaic, non transparent and exploitative wood utilization methods based on quota systems and the use of foreign woodcutters. Activities will include the provision of technical assistance and policy development to allow the transfer of forest management rights to local communities, the development of local management plans, local forest and wildlife inventories, and the establishment of sustainable harvesting policies and procedures for extractive and non-extractive wood production that allows local communities to manage, and profit from, these activities.

Illustrative activities for this component include: targeted research on ecological systems, development of protected area management plans, development of sustainable financing mechanisms for national parks, co-management with local communities, capacity building for local managers and biodiversity assessments. An Integrated Coastal and Marine Management program will be developed to expand the existing Ag/NRM program, currently focused on forests, to other ecosystems. The program will focus on selected marine resources with good income-generating potential and include a range of activities that promote environmentally sustainable development of coastal areas.

Two sub-intermediate results (sub-IRs) will support the achievement of this IR.

##### *Sub-IR 11.2.1: Improved management of protected areas*

Environmental degradation threatens Senegal's biodiversity in its forest and marine ecosystems. Although much research remains to be done on the current status of plant and animal life in Senegal's national parks, the loss of major wildlife populations, both marine and terrestrial, has been well documented. The EG program will provide technical assistance and training to help improve the management of key terrestrial and marine protected areas to prevent further damage to the country's biodiversity. Illustrative activities include:

- Promotion of agreements, approved plans or memorandums of understanding to solidify community rights to a resource.

- Support to communities to negotiate joint venture agreements with private sector operators.
- Assistance to local governments to plan for natural resource use and conservation to reduce conflicts, improve collaboration, and obtain increased control over and benefits from natural resources.
- Technical assistance to Forestry and Parks Departments to improve community-based natural resources management.
- Training communities to monitor natural areas and enforce local protocols.
- Co-management of natural areas (via contract, joint ventures, memoranda of understanding) between communities, the private sector and government.

*Sub-IR 11.2.2: Enhanced local management of natural resources*

Community-based natural resource management has proven effective at increasing sustainable use of resources, increasing local revenues and transferring authority to local governments. The program will strengthen democratic governance by helping community groups and local governments develop the capacity to manage the exploitation of natural resources and the revenues that they generate.

(SO2) IR 4.2 will also place a particular emphasis on natural resources activities that improve the socio-economic conditions and encourage the sustainable methods of forest use that conserve the resource base. It will mainly provide assistance and develop activities that promote increased participation of local people living in villages adjacent to community forests in resources management through the application of a participatory management scheme. In order to enter into an arrangement of this nature, the rights and responsibilities for the management activities should be duly recorded. The primary purpose of these agreements is to ensure sustainability of the resource utilization, the equity of the arrangement and to promote the most efficient management process. These agreements will prescribe the responsibilities of the local populations, and be designed to:

- promote the conservation and management of the community forests as an economically viable and sustainable land-use option;
- rationalize the utilization and increase the productivity of natural forests; and
- contribute to maintaining environmental stability, enhancing biological productivity as key to regeneration and maintaining productive ecosystems.

IR 11.3: Improved Enabling Environment for Sustainable Growth

The proposed program will have a robust policy component to assist the GOS in improving the enabling environment for increasing trade and investment and improved natural resource management and decentralization. Specifically, the program will assist in development and application of laws and regulations that progressively respond to the needs of the Senegalese and foreign investors and allow them to take advantage of competitive trade opportunities. When necessary, the program will build the capacity of institutions to enforce these laws and regulations.

The Program will also promote advocacy efforts of private sector groups. Increasing the public-private dialogue will better inform government decision-makers of private sector needs. In addition, in order to improve public investments, the program will build the capacity of the GOS to develop and manage public private partnerships. Such partnerships, when properly designed and managed, have improved the efficiency in the provision of public goods and services.

Sustainability requires the creation of certain enabling conditions. One of the most important conditions is a policy environment that is conducive to the achievement of increased community responsibility for natural resource management. A number of institutional weaknesses have been identified at all levels of governmental and among community organizations to enhance community-based natural resources management. To overcome these constraints to sustainability, USAID/Senegal will continue its efforts to develop and strengthen the capacity of governmental institutions and community groups through result-focused participatory training to place management responsibilities for resources closer to people who are actually using the resources. The choice of the activities that will be proposed is likely to come from the bottom-up and top-down, but should support the same goal, namely the improvement of NRM at the community level that will help guide the experiments that inform national policy. While local populations might not identify the specific national laws that might require amendment, they could identify local regulatory constraints at the local level

that in turn will prompt the review of national laws and policies. Increasing the capacity of NGOs to provide support to the local populations in policy dialogue and conflict resolution and management could also be envisioned.

The policy component will be addressed with the purpose of increasing popular dialogue on experiences, problems and tactics for improved decentralized management of natural resources. The policy component is expected to include provision of technical assistance, training, limited commodity support. Activities will include analytical studies; technical assistance to improve policy dialogue mechanisms between different levels of local government and between resource users and policy-makers; and the development of information systems.

Illustrative activities include policy work or support that leads to: decreasing administrative barriers to trade and investment; further simplification of custom clearance; public finance reform, anti-corruption measures; creative financing mechanisms (such as public-private partnerships, bonded warehouse and loan guarantees); land tenure reform; improving capital and management expertise and methods to finance infrastructure and service needs; improved fund transfer to local governments; improving dialogue among government, private sector, and civil society to reform policy; promoting a judicial system that provides constructive dispute resolution; and increasing experience in the development and implementation of public private partnerships.

Two IRs support the achievement of the IR:

*Sub-IR 11.3.1: Improved legal, administrative, and regulatory environment supportive to growth*

Promoting the implementation of policy reforms to reduce barriers to trade and to investment, and sustainable natural resource management is at the core of this program. Technical assistance and training will be provided to reduce policy barriers to improved economic growth. Examples of policy impediments that need to be addressed include the application of the labor code, security of judicial decisions and related transparency issues, access to land and property registration, specific trade policies and others detailed in the GOS Accelerated Growth Strategy.

*Sub-IR 11.3.2: Strengthened capacity of selected institutions to foster growth*

The program will help build the capacity of selected government, private and civil society institutions to foster economic growth. Technical assistance and training will be provided to help institutions coordinate economic policies and develop unified plans and policies.

IR 11.4: Improved Transparent and Accountable Management of Resources

Poor governance and weak rule of law are important obstacles keeping Senegal from achieving higher economic growth and improved social service delivery. In many cases the public is not sufficiently informed, or lack the tools and opportunities to hold leaders accountable for the use of public funds. This component will assist in augmenting the human and financial resources that local governments need to take on the authority given to them to manage local resources.

The Program will promote increased accountability and transparency in the provision of public service, use public funds and management of natural resources through a two-pronged approach: (1) by building the capacity of the private sector and civil society to better advocate for transparent and accountable public management to encourage investment; and (2) by building the capacity of local governments to manage local resources in a transparent and sustainable manner. Building this capacity for improved local management and advocacy in the context of a pro-poor economic growth strategy can have the added impact of reducing conflicts and enhancing security.

Illustrative activities for this component include: increasing the capacity of leaders (in private sector and civil society) to influence and monitor public policies; increasing citizen access to information on public policies and the extent to which they are implemented; and increasing capital and management expertise to local governments.

Three IRs support the achievement of the IR:

#### *Sub-IR 11.4.1: Enhanced capacity of selected institutions to foster good governance*

Working with local partners and selected institutions, the program will strengthen the demand for accountability and transparency at the national and local levels, and improve the management capabilities of ministerial and local government officials. A communications program may be developed to publicize natural resource and enterprise laws and regulations as well as local conventions and by-laws.

#### *Sub-IR 11.4.2: More effective civil society/citizen participation in governance*

Bringing civil society actors into the policy reform dialogue is a key element to achieving sustainable results. By funding targeted studies and communication campaigns that inform the public debate, USAID will enable new voices to be heard and new leaders and spokespersons to emerge. Enlarging the field of actors will create poles of influence outside of the current highly centralized political structure. Widespread and locally developed efforts to establish transparency and accountability as norms will encourage the Senegalese to challenge the entrenched, inefficient patronage system that makes Senegal less competitive and increase the likelihood of agreed-upon policy changes being put into action.

#### *Sub-IR 11.4.3: Strengthened Public Private Partnerships*

The GOS, USAID/Senegal and other donors have identified public-private partnerships as an extremely effective way to leverage private capital in the provision of public services. Public Private Partnerships (PPPs) will increasingly be a pivotal part of GOS and donor implementation strategies. Senegal has had limited experience with large and complex public-private partnerships. The program will assist the GOS to further develop the regulatory framework; provide guidance on structure, management, marketing, financing and insurance of PPPs; and feasibility studies aimed at the development of an attractive and feasible PPP packages.

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

### **2.1 Locations Affected**

The Program will work throughout the whole territory of Senegal. A focus will be put on the southern forest estate and coastal areas primarily because most products that will be targeted are found in those regions. However, in order to enable the program to take advantage of targets of opportunity that may arise in different parts of the country, the program will retain the flexibility to work outside these areas.

Senegal comprises an 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. The following provides a brief description of the biophysical and socio-economic aspects of Senegal.

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: Senegal, Sine-Saloum, Gambia and Casamance. Because of low rainfall and the high evaporation rate, there are practically no permanent surface bodies of significance except for the 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 ferrallitic 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 bushes 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.

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. As a result of this rate of increase, nearly 45 percent of the population is under the age of 15. Gross domestic investment rates (23% of GDP in 2003) are too low to raise the real growth rate to the 7.5 percent range essential to generate increased income and employment needed to accelerate the pace of poverty reduction. While Senegal's 4.3% average economic growth rate over the past decade is laudable, stronger economic growth is needed to meet the Millennium Development Goal of halving poverty by 2015.

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.

Peanuts have been the main cash crop for over 150 years and the soils in the peanut basin are greatly depleted of nutrients. These impoverished soils are forcing people to migrate towards areas of higher soil fertility, mostly towards the forested southern regions. As the population grows, and migrates into areas of higher agricultural productivity, conflicts between different land uses and populations will continue to occur and perhaps become more frequent. These conflicts are exacerbated in transboundary areas and have been one of the main causes of the regional conflicts in the Casamance and other areas.

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 which is roughly 17% of the country's active workforce. Within the last ten years, the amount of fish caught has been abundant with 398,000 tons caught in 1999 representing a commercial export value of over US \$300 million. However, from 1999 to 2002, there was a steady decrease of 10% of the total landing of the fisheries sector from 398,000 tons to 341,000 tons. Since 2003 there has been an increase to 470,000 of fish caught, partly due to new management policies for opening and closing fishing seasons. Fish is the number one export representing between 25% and 30% of the country's total exports.<sup>2</sup>

*Biodiversity:* Senegal has established a network of national parks and wildlife reserves that provide a rather complete representation of natural ecosystems existing in the country. There are 7 national parks and 8 reserves which occupy some 8% of the land area of the country. In 2005, Senegal created 5 new protected coastal areas bringing the total to 12 protected areas. Table 1 shows the existing terrestrial protected area system. This considerable amount of land area placed under protected status has salvaged vestiges of the initial biodiversity, but the overall situation is alarming. Most of the original wildlife has decreased in recent years in the face of human encroachment. The protected areas have suffered from heavy commercial poaching in the past, and these areas tend to be under-staffed, under-equipped and under-funded to provide adequate protection.

Because of the vastness of the protected estate and the numbers of forest reserves (more than 200 reserves covering originally 2,519,000 hectares), the current biophysical status of Senegal's protected area network is not well known today, although the loss of the major wildlife populations is well documented. The larger national parks such as Niokolo Koba, Djoudji and the Saloum Delta are better known. The remaining natural habitats and biodiversity are valuable and the marine and coastal protected areas are especially rich in biodiversity and provide important sources of revenue. This natural capital is being lost, yet could be an engine for rural growth through tourism, improved fisheries, or promotion of markets for natural products.

The Niokolo Koba National Park in Tambacounda covers over 900,000 ha and is the most valuable and extensive conservation park in Senegal. Although registered as both a World Heritage site and a Man and the Biosphere (MAB) Reserve it has been heavily poached in the past and has suffered from the great droughts of the 1970's. The Djoudji National Park, a 16,000-hectare area established as a migratory bird reserve is well protected but suffers from the construction of an anti-salt dam in the Senegal River. This has dramatically reduced the nesting areas of some species. The Saloum Delta National Park with its 73,000 ha has a village within its small forest and has practically no remaining large wildlife, yet the delta itself is rich in marine life.

Tappan (Tappan et al, 2004) provides a comprehensive overview of the status and trends of ecoregions in Senegal. Based on 40 years of satellite imagery, aerial surveys and fieldwork, Tappan concludes that at the ecoregion scale the decline in Senegal's biodiverse forests is of particular concern, but the rate of agricultural expansion has slowed and savannas, woodlands and forests still cover more than two-thirds of the country.

Within the boundaries of Senegal are a number of species at the northern limit of their geographic range, such as chimpanzee, elephant, hippopotamus and buffalo. Other species present are at their most southerly point of occurrence, including some Palearctic migrant birds, among them the gull-billed tern and little tern.

The relatively low biodiversity of Sahelian terrestrial habitats is in contrast to the presence of rich coastal and marine life forms where urban pollution or mismanagement has not destroyed them. The Saloum Delta National Park (76,000 ha) consists mainly of mangrove swamps which is among the

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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.

largest and best preserved in Africa. The park is a RAMSAR wetland site and serves as breeding habitats for various bird species and for manatees, dolphins and marine turtles, and as important staging areas for migratory birds from Europe.

The southern forest zone in the Tambacounda region has six protected areas comprised of four classified forests, one national park and one hunting reserve. The gallery forests in the Niokolo Koba system represents 78% of the gallery forests in Senegal and consists of palms, raphias as well as marsh prairies. Of the 31 plant species considered endemic to Senegal, 12 are present in this zone and 8 are considered endangered. This zone contains 80 species of mammals, around 330 bird species, 36 reptiles, 60 fish species, 2 amphibians and about 1500 plant species. Because of the diversity of habitats and the large size of this park, species richness is high, although the number of endemic species is not exceptional. This ecosystem houses the only viable population of the rare Eland de Derby (*Tragelaphus derbianus derbianus*) in the sub-region. The park is equally the last refuge for the elephant (*Loxodonta africana*) in Senegal and around 150 chimpanzees (*Pan troglodytes*) live in the gallery forest in and around the park

Table 1: Ecoregions of Senegal

Ecoregion	Area (km <sup>2</sup> )	Predominant vegetation
1. West Central Agricultural Region, or "Peanut Basin"	25,915	agricultural tree parkland, dominated by two species of acacia
2. Senegal River Valley	6,323	open steppes, shrub steppes, and localized acacia woodlands
3. Northern Sandy Pastoral Region	24,763	open shrub steppes and grasslands
4. Ferruginous Pastoral Region	30,908	shrub savannas, and bushland, often relatively dense
5. Southern Sandy Pastoral Region	10,852	shrub and tree savannas
6. Niayes, or Long Coast	1,049	shrub savanna; wetlands fringed with trees in inter-dunal depressions ( <i>niayes</i> )
7. Saloum Agricultural Region	6,413	agricultural tree parkland; a few degraded wooded savannas and woodlands
8. Agricultural Expansion Region	8,436	degraded shrub and tree savannas; somewhat denser in the south; open agricultural parkland in the broad valleys
9. Eastern Transition Region	27,869	tree savannas and wooded savannas; small areas of agricultural parkland
10. Shield Region	28,660	open to dense wooded savannas, and grasslands on laterite
11. Casamance	24,540	predominately wooded savannas and woodlands; grasslands on laterite; riparian and gallery forests; parkland
12. Estuaries	4,095	mangroves and halophytic vegetation of tidal flats

Adapted from Tappan, 2004

**Forests:** Classified forests cover an area of 2.5 million hectares in Senegal and an estimate of unclassified forests based on remote sensing indicates approximately 600,000 hectares of open forest and 4,800,000 hectares of wooded savanna in the southern half of Senegal. These unprotected forests contribute significantly to the fuelwood supplies of small villages and urban areas including Dakar. All forests are under increasing pressure to provide firewood for a growing population and construction material. They are also subject to slashing and burning for the expansion of new agricultural lands and to the ravages of bushfires.

The rate at which the forests are shrinking is estimated at a rate of 0.5 percent per year. Urban need for domestic energy has created a large and burgeoning demand for charcoal. Harvesting and supplying this wood to the cities and urban areas in Senegal is still presently being achieved by cutting the natural forest areas. While there are some opportunities for both charcoal substitution and transformation technologies, it is apparent that the magnitude of demand will, for the foreseeable future, have to be met from these same forest areas. Properly managed, the existing forest estate is able to sustainably provide charcoal for the foreseeable future.

The Forestry Department is expressing a willingness to more actively transfer forest management to local communities as foreseen under the Decentralization code. To date, approximately 200,000 hectares have been transferred to community control for their control and profit. Sene (2004) lists the substantial value of these forests through improved marketing of its products (various gums, fruits for juices, and others for use in the pharmaceutical or cosmetic industries). However, forest taxes are substantial and are more of a disincentive to the responsible management and production of environmentally friendly products (Clausen, 2003).

## 2.2 National Environmental Policies and Procedures of Senegal

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 in 1998 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. Senegal's Hunting Code is outdated and does not comply with the Decentralization Code but is currently being updated. No **Pastoral Law** exists so there are no clear policy directives on how transhumance is to be managed, a continual source of land conflicts. Land tenure is governed by the outdated **National Domain Law** of 1964 that nationalized land to intensify agricultural production. Due to this law, the local populations lost their customary management rights over their ancestral lands; including fallow and land reserves. This law does not recognize either pastoralism or natural forest management as proper land uses or tenure.

## 3.0 EVALUATION OF ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

This section evaluates potential environmental impact of the proposed activities under the SO.

**IR 1: Increased Trade of Agricultural and Natural Resource Based Products:** USAID/Senegal is committed to assisting income-generating activities in a manner that promotes efficient resource conservation practices. USAID will provide technical assistance, training and a loan guarantee program to promote trade in targeted sub-sectors. This activity is not expected to have an overall negative effect on the environment because it is accompanied by efforts to improve local management of the resources.

Specific products that will be targeted may have a varying degree of direct or indirect impact on the environment and conditions are identified to address these. Current, poorly managed charcoal and timber extraction practices in natural forests pose a considerable environmental impact. The EG Program will promote incentives towards more rational, sustainable production. If timber and charcoal is produced under a management scheme with more profits going to the communities, it is expected that the communities will place more value on the forest and take additional measures to protect it. In this context, selective harvesting may be done on a relatively small scale for local markets, especially furniture making – not for large shipments of timber for export. Charcoal production is less problematic than selective harvesting of timber – the preferred species is *Combretum* which coppices profusely.

Forest management in Senegal is governed by the Forestry Code and it is the forest management plan that allows forest product extraction or not. The management plans have to be approved by the Forestry Department and the program will help add an additional approval/vetting process through local certification. The status quo is that timber/charcoal extraction is occurring without management plans and the Forestry Department will only allow local control of forests if there is a management

plan. This is a double standard that allows richer people to continue exploitation while putting the onus on poor communities to reach a higher, more expensive standard of a management plan. The program hopes to remove this double standard and have everyone operating on a level playing field with the same, certifiable, standards.

Mitigation against adverse environmental impact from trade in forest products will be established within local forest management plans that are environmentally responsible, socially beneficial and economically viable. Forestry management plans will be based (among other things) on best knowledge of growth rates, inventories of key species, clear delimitation of forests and forest use rights – all of which will be specific to each site. The management plan will in effect constitute an environmental assessment with the added value of being done locally, under local laws and considering local input. These plans will include, at a minimum, 1) the best available, site specific information on forest productivity and health (including growth rates), 2) a consultation process that allows the general public to comment and provide input on the management plan, and 3) an agreement with local authorities to safeguard and maintain resource base to ensure its continued productivity.

Forestry and wildlife activities will be done in accordance with criteria established in the USAID/AFR/SD publication *Environmental Guidelines for Small-Scale Activities in Africa*. Forest management plans will develop sustainable utilization and extraction schedules based on growth, productivity and health estimates derived from the best available inventory information. This approach will be conducted on a site specific basis and be regularly monitored. Information generated from monitoring work will be used to fine-tune utilization and extraction schedules, as needed. This information will also be shared with other partners and communities engaged in similar work to enhance NRM activities that most effectively respond to national poverty reduction strategies by improving livelihoods while conserving forest values (goods and services, including biodiversity and water conservation among others).

The standards set for selective harvesting is clear: selective harvests based on growth rates, community input and neutral third party verification of forest management along the lines of the Forestry Stewardship Council's certification process. This third party verification is essential to mitigate against adverse environmental impact: it ensures that the private sector and government are transparent and answerable for adhering to their standards.

For marine fisheries, no intensive farming for shrimp or other marine products is envisioned. Rather, the program will support improved management of natural shrimp or other fishery catches in the open sea and estuaries through developing community and private sector supported management plans for sustainable offtake. The program may improve management and sales of oysters, shellfish and other marine products to improve sustainable offtakes in conjunction with a marine protected area program.

Because all products that will be targeted for trade have not been identified, a process for environmental review and screening for activities that may have a potential impact will be established. This will include measures of performance, whereby the implementing contractor will assure that effective and efficient environmental practices are an integral part of the overall assistance to resource users and local private enterprises involved in resource harvesting, processing and/or transformation for marketing.

**The IR 2 for Improved Sustainable Management of Natural Resources and Biodiversity** will provide technical assistance to improve the management of communal lands, forest reserves, national parks and marine protected areas. In particular it will work with community groups to gain access and control over forests within their area. Using best practices outlined in USAID's September 2005 publication: *Biodiversity Conservation: A Guide for USAID Staff and Partners*, the Program intends to improve the management of biodiversity significant areas. This activity is expected to have a positive environmental effect since areas of significant biodiversity will be delimited, gain legal status and have a legally recognized management plan or protocol. Management objectives for biodiversity conservation will be explicit and based on actual data of land use capability and ecosystem importance. Most importantly, management will be further devolved to local communities, increasing transparency in management of the areas.

Within **IR 3 for an Improved Enabling Environment for Sustainable Growth**, USAID will provide technical assistance and training to promote policy reforms that improve economic growth and natural resource management. Policy reforms within the private sector are expected to have no adverse

environmental impact as they deal with macro policies affecting how business is conducted in Senegal. Policy reforms for natural resources and biodiversity conservation are expected to have a positive affect on the environment because they are predicted to diminish open access to unprotected forestland; clarify management roles and objectives and transfer management responsibilities to local governments.

For **IR 4, Improved Transparent and Accountable Management of Resources**, no adverse impact on the environment is expected. The activities to be undertaken to achieve the results under this IR are exclusively training, provision of technical assistance, information and policy dialogue that do not affect the environment in any way. Activities focus mainly on improving governance at the national and local levels. This IR will have an overall positive environmental impact as transparency and accountability in the forestry and biodiversity sectors will be targeted which will ultimately improve public oversight of natural areas.

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

This section focuses upon recommendations to reduce possible negative impacts through more effective and efficient resource management and conservation practices, an idea which is already explicit within the program's objectives.

The following environmental determination is recommended under this IEE amendment:

- 1) For IR 1: Increased Trade of Agricultural and Natural Resource Based Products:
  - a) A **negative determination with conditions** is recommended per 22CFR 216.3(a)(2)(iii) for activities creating or expanding income-generating enterprises and resources management systems. These include among others: agricultural processing, textiles production, harvest and marketing of timber and non-timber forest products, horticulture, fisheries, domestic energy, tourism as well as all technical services and training provided in these sectors. This IEE describes a specific set of steps that will be taken to ensure adequate environmental review and mitigation. With implementation of the recommended mitigation and monitoring measures, these activities are not expected to have significant adverse effects on the environment.

No timber harvesting activities will be conducted in relatively undisturbed forests without prior completion and approval of an environmental assessment. Part Foreign Assistance Act, Part I, Section 118 - Tropical Forests forbids U.S. Government support for "the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner which minimizes forest destruction and that the proposed activity will produce positive economic benefits and sustainable forest management systems." No environmental assessment is needed at this time because timber harvesting is only expected in forests which are already heavily disturbed by human use.

- b) A **negative determination** is also recommended for the loan guarantees under the Development Credit Authority per 22 CFR 216.3(a)(2)(iii) related to credit being made available for productive activities.
- 2) For IR 2: Improved Sustainable management of Natural Resources and Biodiversity:
  - a) a **categorical exclusion** is recommended for under this intermediate result, per 22CFR216.2(c)(2)(i) for activities involving education, technical assistance, training; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) for document and information transfer activities.
  - b) A **negative Determination with conditions** is recommended per 22 CFR 216.3(a)(2)(iii) for the following activities that are not expected to have significant adverse effects on the environment but could lead to negative impacts if not designed and implemented with the viability of the natural area in question. Illustrative activities under this IR include: development of protected area management plans; development of sustainable financing mechanisms for national parks; co-management of protected areas with local communities; promotion of agreements, approved plans or memorandums of understanding to solidify community rights to a resource.

A Summary of Conditions for IR 1 and IR 2 include:

1. Activities in support of agricultural products do not include the purchase or application of pesticides. This examination does not cover pesticides, including their procurement, use, transport, storage or disposal. Any pesticide activity proposed under this program would necessitate an amended IEE, including all elements of analysis identified in 22CFR216.3(b), USAID's Pesticide Procedures.
2. USAID funds will not be used for land conversion from its natural state (i.e. forests, wetlands, grasslands, savannas, coastal zones, etc.) to agricultural productivity zones..
3. No large scale irrigation activities are envisioned in this program. Support for the use of small-scale irrigation systems that may be implemented through manuals, demonstration sites, and other forms of technical assistance and training shall include irrigation best practices. In addition, close monitoring shall be undertaken to ensure farmers are using the best practice guidance on irrigation. The Program and its partners will refer to [www.encapa.africa](http://www.encapa.africa) Africa Bureau Environmental Guidelines for Small Scale Activities (Agriculture: Soil and Water Resources, including Irrigation).
4. Technical assistance and training in improved agricultural production practices shall include information on conservation of natural resources and biodiversity, and shall promote intensification of agriculture, while discouraging the expansion of agriculture into areas that provide important ecosystem services.
5. Mitigation against adverse environmental impact from trade in forest products (including non-timber forest products, timber, charcoal and fuelwood) will be established within local forest management plans that are environmentally responsible, socially beneficial and economically viable. These plans will include, at a minimum, 1) the best available, site specific information on forest productivity and health (including growth rates), 2) a consultation process that allows the general public to comment and provide input on the management plan, and 3) an agreement with local authorities to safeguard and maintain resource base to ensure its continued productivity. Information generated from monitoring work will be used to fine-tune utilization and extraction schedules, if needed. Forestry and wildlife activities will be done in accordance with criteria and best practices established in the [www.encapa.africa](http://www.encapa.africa) USAID/AFR/SD publication *Environmental Guidelines for Small-Scale Activities in Africa*. Plans that are developed for community managed natural resource areas will be developed in a participatory manner, including all stakeholders.

3) For IR# 3: Improved Enabling Environment for Sustainable Growth: a **categorical exclusion** is recommended for all activities under this intermediate result, per 22CFR216.2(c)(2)(i) [education, technical assistance, training]; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) [document and information transfer].

4) For IR#4: Improved Transparent and Accountable Management of Resources: a **categorical exclusion** is recommended for all activities under this intermediate result, per 22CFR216.2(c)(2)(i) [education, technical assistance, training]; 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings; and 22CFR216.2(c)(2)(v) [document and information transfer].

**Monitoring:**

As required by ADS 204.5.4, the SO11 Team and activity implementing partners will "actively monitor and evaluate whether the conditions associated with these activities are being implemented effectively and whether there are new or unforeseen consequences arising during implementation that were not identified and reviewed in accordance with sound environmental management. USAID/Senegal commits itself to incorporating sound environmental review principles and screening, capacity building, monitoring, evaluations, and mitigation procedures specified in this IEE. The SO Team shall also monitor the need for additional environmental review based on IEE recommendations. SO11, 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. Determinations and conditions associated with this IEE meet environmental standards established by the Government of Senegal.