1. PROJECT DATA					
Review date:					
GEF ID:	118		at endorsement (Million US\$)	at completion (Million US\$)	
Project Name:	Sustainable and Participatory Energy Management	GEF financing:	4.7	N/A	
Country:	Senegal	IA/EA own:	8.8	N/A	
		Government:	1.2	N/A	
		Other*:	5.2	N/A	
		<b>Total Cofinancing</b>	15.20	N/A	
Operational	STRM	Total Project	19.93	N/A	
Program:		Cost:			
IA	WB	Dates			
Partners involved:	Ministry of		Work Program date	04/01/1996	
	environment and	CEO Endorsement		05/23/1997	
	protection of nature& Ministry	Effectiveness/ Prodoc Signature (i.e. date project began)		12/10/1997	
	of Energy and Mining	Closing Date	Proposed: 12/31/2004	Actual: 12/31/2004	
Prepared by:	Reviewed by:	Duration between	Duration between	Difference	
Tarek Soueid	Antonio Del	effectiveness date	effectiveness date	between original	
	Monaco	and original	and actual closing:	and actual closing:	
		closing: 84	84 months	None	
A	WD	months	TE submission	D'66	
Author of TE:	WB	TE completion		Difference	
		date: June 2005	date to GEF OME:	between TE	
			September 2005	completion and	
				submission date:	
	1			Three months	

#### **GEFM&E Terminal Evaluation Review Form**

\* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

#### 2. SUMMARY OF PROJECT RATINGS

GEF EO Ratings for project impacts (if applicable), outcomes, project monitoring and evaluation, and quality of the terminal evaluation: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), not applicable (N/A) and unable to assess (U/A). GEF EO Ratings for the project sustainability: Highly likely (HL), likely (L), moderately likely (ML), moderately unlikely (MU), unlikely (U), highly unlikely (HU), not applicable (N/A), and unable to assess (U/A).

Please refer to document "Ratings for the achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation reports and project M&E systems" for further definitions of the ratings.

	Last PIR	IA Terminal Evaluation	Other IA evaluations if applicable (e.g. IEG)	GEF EO
2.1 Project outcomes	N/A	HS	HS	S
2.2 Project sustainability	N/A	HL	HL	L
2.3 Monitoring and evaluation	N/A	N/A	N/A	MS

2.4 Quality of the	N/A	N/A	U	MS
evaluation report				

Should this terminal evaluation report be considered a good practice? Why? No. Some of the issues, for example monitoring and evaluation, have not been covered adequately. Is there a follow up issue mentioned in the TE such as corruption, reallocation of GEF funds, etc.? No follow-up issue mentioned in the TE.

#### **3. PROJECT OBJECTIVES, EXPECTED AND ACTUAL OUTCOMES**

#### 3.1 Project Objectives

What are the Global Environmental Objectives? Any changes during implementation? The global environmental objective of the project was "reduction of wood fuel-related deforestation." No changes were made in the Global Environmental Objective during project implementation.

#### What are the Development Objectives? Any changes during implementation? **Development Objectives**

According to the Project Appraisal Document, project's development objective was to meet an important part of the rapidly growing urban demand for household fuels, without the loss of forest cover and the ecosystem's carbon sequestration potential and biodiversity. This objective was to be met through the (i) implementation and monitoring of 300,000 hectares of environmentally sustainable community-managed forest resource systems in the Tambacounda and Kolda regions of Senegal, creating a protection zone around the Niokolo-Koba National Park; (ii) promotion of private sector inter-fuel substitution and private sector and NGO-based improved stoves initiatives; (iii) strengthening of the institutions involved in the management of the sector, and the promotion of the participation of the civil society (private sector, academic institutions, NGO, and community) in the operation of the sector.

No changed were made in these objectives during project implementation

**3.2 Outcomes and Impacts** 

#### What were the major project outcomes and impacts as described in the TE?

According to the TE community-managed forest resource systems now account for a large part of the country's woodfuel supply, having developed the communities' capacities, generating significant returns for them, and improving forest conservation. The project also surpassed its targets for net CO2 emission reductions (1.78 million vs. 510,000 tons), and incremental income to the communities from the woodfuel trade and natural resource-based micro enterprises (US\$12.5 vs. US\$3 million/yr.). As a result of the substantial annual income returns from the micro enterprises (and other factors), the project achieved an ERR significantly higher than that at appraisal, 137.55% compared to an estimated 37.3%. However, the high ERR was also due to the fact that the disbursements were made largely in the latter part of the project. Other outcomes include:

- The transformation of the Forestry Service from being a purely top-down, rule- enforcing institution to an agency that also provides technical assistance and services, and its adoption of scientific forestry planning and management.

- The implementation of "pre-management" sustainable woodfuel schemes in an additional 229,359 hectares.

#### 4. GEF OFFICE OF M&E ASSESSMENT

#### 4.1 Outcomes

#### A Relevance

In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies? Explain

Yes, the project's outcomes were consistent with the focal areas/operational program strategies. It led to significant reductions in carbon emissions, the main focus of this focal area.

**B** Effectiveness

**Rating: S** 

Rating: S

• Are the project outcomes as described in the TE commensurable with the expected outcomes (as described in the project document) and the problems the project was intended to address (i.e. original or modified project objectives)?

According to IEG's evaluation summary based on the TE project outcomes were commensurable with the expected outcomes.

a) The implementation and monitoring of 300,000 hectares of environmentally sustainable communitymanaged forest resource systems, creating a protection zone around the Niokolo-Koba National Park. Community-managed and sustainable forest-resource systems were established in an area of 378,161 hectares around the park, an area larger than that expected at appraisal, and in 317 communities, which was 27% greater than the appraisal target of 250. Deforestation was reduced by 39,489 ha/yr (which was 97% greater than the appraisal target of 20,000 ha/yr.) while producing in a sustainable manner 370,600 tons of woodfuel/yr. (compared to an estimated 300,000 tons/yr.). Compared to the expectation of 0.5 million tonnes in terms of CO2 abatement the actual CO2 abatement was estimated to be much higher at 1.8 million tonnes.

b) <u>The promotion of private sector inter-fuel substitution and private sector and NGO-based improved</u> <u>stoves initiatives.</u> The evidence cited on this component is comprises primarily of project outputs. However, the listed outputs have a strong linkage with the outcomes and impacts relevant to GEF's focus. The project was able to exceed its targets for the number of improved stoves and kerosene stoves promoted. The number of improved woodfuel stoves promoted was 237,236 (which slightly exceeded the target figure of 225,000), and 11,560 kerosene stoves were sold (which was 189% greater than the target of 4,000). A local micro credit NGO was procured as a financial intermediary to manage a revolving loan fund for certified, private improved-stove manufacturers and retailers to operate in their respective fields.

#### C Efficiency (cost-effectiveness)

**Rating: S** 

Include an assessment of outcomes and impacts in relation to inputs, costs, and implementation times based on the following questions: Was the project cost – effective? How does the cost-time Vs. outcomes compare to other similar projects? Was the project implementation delayed due to any bureaucratic, administrative or political problems and did that affect cost-effectiveness?

In spite of the accrued start-up delays, the project managed to achieve or largely surpassed all its expected outcomes and outputs and closed within budget and required no closing extensions to complete disbursements. This goes to show that project was able to achieve its objectives in a cost effective manner.

#### Impacts

### • Has the project achieved impacts or is it likely that outcomes will lead to the expected impacts?

The project has been successful in establishing a system of community managed sustainable forestry in 378,161 ha around the park, which is greater than the expectations. Deforestation was reduced by 39,489 ha per year which was 97% greater than the appraisal target of 20,000 ha per year. Compared to the expectation of 0.5 million tonnes in CO2 abatement the actual CO2 abatement was estimated to be much higher at 1.8 million tonnes. Thus, over all it could be inferred that project has achieved major impacts.

**4.2 Likelihood of sustainability.** Using the following sustainability criteria, include an assessment of <u>risks</u> to sustainability of project outcomes and impacts based on the information presented in the TE. **Sustainability** 

#### A Financial resources

#### **Rating:** Moderately Likely

For sustainability of the benefits from the project, it is imperative that the local communities continue to manage forests effectively. The information provided in the TE suggests that community institutions are strong and it is likely that they will continue to manage the local forests successfully. Consequently, very little financial resources may be required to sustain the global environmental benefits from the project at

the present rate of accrual. However, there is also a need to further upscale the project across the country and for that additional resource will be required. Government has been slow in allocating financial resources for the expansion of this project. And this poses some risk to the potential benefits that could materialize.

#### **B** Socio political :

#### **Rating: Moderately Likely**

According to the TE, the long-term sustainability of the project's development objectives and outcomes depends on two main factors: (i) commitment by beneficiaries to maintain the project achievement; and (ii) commitment by Government to extend sustainable forest resource management to the rest of the country and to liberalize the charcoal trade. While commitment of the beneficiaries is more or less as per the expectations, the government support to extension of sustainable forest resource management to the rest of the country has been below expectations. This poses a minor threat to the socio-political sustainability of the project.

#### C Institutional framework and governance Rating: Likely

According to the TE Completing the reform of the traditional energy sector and extending sustainable forest and NRM practices to the rest of the woodfuel supply zones of the country is essential in order to protect the country's forest resource base and the commercial viability of the managed production zones. It further suggests that the Government of Senegal understands these issues and is committed to making relevant policy changes such as liberalization of the charcoal trade by 2007. The TE also informs that the strengthening of the structures of governance at the local forest level through building capacities in the community based institutions will facilitate sustainability of benefits from the project.

#### **D** Environmental

#### **Rating:** Likely

The TE has not mentioned any imminent environmental risks. Given the nature of the project it could be assumed that the project will not generate environmental risks.

Provide only ratings for the sustainability of outcomes based on the information in the TE:

Α	Financial resources	Rating: ML
В	Socio political	Rating: ML
С	Institutional framework and governance	Rating: L
D	Environmental	Rating: L

#### 4.3 Catalytic role

#### 1. Production of a public good

The public goods produced by the project include abatement of CO2 emissions, increased woodfuel supply for the local population and strengthening of local institutions to manage forests.

#### 2. Demonstration

#### 3. Replication

#### 4. Scaling up

The terminal evaluation refers to the fact that the government is in the process of expanding the sustainable management programs by law to the entire country.

#### 4.4 Assessment of the project's monitoring and evaluation system based on the information in the TE

A. In retrospection, was the M&E plan at entry practicable and sufficient? (Sufficient and practical indicators were identified, timely baseline, targets were created, effective use of data collection, analysis systems including studies and reports, and practical organization and logistics in terms of what, who, when for the M&E activities)

The Project Appraisal Document has a separate section on monitoring and evaluation that covers M&E related issues. It lists indicators for assessing achievements under each of the project components. The risks associated with the project have also been laid out in. The M&E section also briefly summarizes the methodologies that will be adopted to collect information on the specified indicators.

**Rating: MS** 

# B. Did the project M&E system operate throughout the project? How was M&E information used during the project? Did it allow for tracking of progress towards projects objectives? Did the project provide proper training for parties responsible for M&E activities to ensure data will continue to be collected and used after project closure?

The TE does not provide a comprehensive account on actual implementation of the M&E system, however, there is some scattered information on M&E system in the TE report. According to the TE the project included specific monitoring and evaluation activities, including assessing changes in forest utilization and wildlife status, to evaluate the achievement of the global environmental objectives that focused on maintenance of carbon sequestration capacity, CO2 emission abatement and biodiversity conservation. It informs that the project established a state of the art Geographical Information System (GIS) to assess changes in forestry and vegetation cover. It further mentions that there was a six month delay in the procurement of the vegetation cover inventory, mapping and GIS forest management monitoring system.

#### Rating: MS

C. Was M&E sufficiently budgeted and was it properly funded during implementation? the report does not present an assessment of project M&E systems **Rating: UA** 

**Can the project M&E system be considered a good practice?** The report does not present a comprehensive assessment of project's M&E system.

#### 4.5 Lessons

Project lessons as described in the TE

What lessons mentioned in the TE that can be considered a good practice or approaches to avoid and could have application for other GEF projects?

According to the TE the project offers following lessons.

*Traditional energy supply systems can be sustainable*. An important lesson from the project is that the structure and mode of operation of the traditional energy sector can be transformed from its typical environmentally and socially unsustainable form to a sustainable and socially progressive form.

*Supply side management is essential.* Stabilization of the traditional energy sector essentially depends on the implementation of comprehensive changes in the woodfuels' supply systems and chains. While demand management interventions are important and need to be pursued, especially dissemination of improved end-use technologies and practices, this alone may not resolve the existing problems. In spite of the growing number of PROGEDE like operations, demand management is still believed to be the preferred course of action to correct the problems in the sector.

*Community-based natural resource management works*. Establishment of environmentally and socially sustainable woodfuel supply systems can only be achieved through the introduction of integrated community-based forestry and natural resource management schemes, that is Community Driven Development (CDD) schemes. The governments lack the financial resources, the man power, and the incentive to effectively manage the forests and other natural resources. While the mostly unsuccessful Government-run forest management and reforestation programs that were implemented in the Sahel up until the mid-90s had an averaged cost of US \$750 per hectare, PROGEDE's costs were less than US \$65 per hectare.

*A "minimum policy platform" is required.* PROGEDE served to identify and operationally test the "minimum policy platform" that is required to underpin a well functioning traditional energy supply system: (i) clear and legally enforceable forest resource and land tenure rights and responsibilities must be established, in other to provide the necessary incentives for the community (or other economic agents) to invest in the management and conservation of the resource base; (ii) a fair and transparent decentralized fiscal and taxation system needs to be in place, in order to adequately fund the oversight and supervision functions of the respective local levels of government; (iii) a clear and fair pricing system which maximizes producer prices needs to be in place, in order to provide the necessary incentives for sustainable resource

management and to maximize rural social and economic development impacts; and, (iv) woodfuel producers need a guaranteed access to final consumer markets, preferably on an open access basis (liberalized trade) in order to avoid the deviation of rents from producers to intermediaries.

*Localized sustainability is not sufficient.* PROGEDE's community-based sustainable management model has proven to be highly successful. However, for the model to be fully sustainable it is necessary to end unmanaged production of woodfuels in the country. Unmanaged zone(s) and unregulated producers are able to supply cheaper product to the markets and can ultimately undercut the more expensive "sustainable woodfuels".

*Community-based biomass energy management: a gateway to increasing rural access to modern energy services.* Unless a minimum stable local income base and a productive demand for energy already exists or can be rapidly created in rural areas, increasing access to modern energy services can only be done on the basis of large and long-term subsidies. Doing so under present conditions would be economically untenable.

**4.6 Quality of the evaluation report** Provide a number rating 1-6 to each criteria based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to the "Criteria for the assessment of the quality of terminal evaluation reports" in the document "Ratings for the achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation reports and project M&E systems" for further definitions of the ratings.

#### 4.6.1 Comments on the summary of project ratings and terminal evaluation findings

In some cases the GEF Evaluation Office may have independent information collected for example, through a field visit or independent evaluators working for the Office. If additional relevant independent information has been collected that affect the ratings of this project, included in this section. This can include information that may affect the assessment and ratings of sustainability, outcomes, project M&E systems, etc.

N/A

4.6.2 Quality of terminal evaluation report	Ratings	
A. Does the report contain an assessment of relevant outcomes and impacts of the	S	
project and the achievement of the objectives?		
While TE has not adequately covered other development issues that the project focused		
at, it does provide sufficient information on the performance of the project in terms of		
achievement of outcomes and impacts related to global environmental benefits.		
B. Is the report internally consistent, is the evidence complete/convincing and are	MS	
the IA ratings substantiated?		
No, the report seems in general to be consistent and complete but has not covered specific information on several sub-objectives and -components, and their achievements		
in sufficient detail.		
C. Does the report properly assess project sustainability and /or a project exit	MS	
strategy?	WIS .	
Although the report assesses the project sustainability, it does not adequately cover all		
the dimensions in adequate detail. Regarding exit strategy, a section in the TE discusses		
transition to regular operations right after sustainability in the TE		
D. Are the lessons learned supported by the evidence presented and are they	S	
comprehensive?	5	
Yes, the lessons learned are in general supported by the evidence presented.		
E. Does the report include the actual project costs (total and per activity) and	S	
actual co-financing used?		
F. Does the report present an assessment of project M&E systems?	MU	
Information on M&E systems is scattered through the TE report. The information on		
M&E is also not comprehensive.		
4.7 Is a technical assessment of the project impacts described in Yes: X	No:	

<b>the TE recommended?</b> Please place an "X" in the appropriate box and explain below.			
Explain: For this project, and given the impact confirming the greenhouse gas emissions avoided by verifying the status of the forests under sustainable management or conservation, and after evaluating the			
status of biodiversity to see if the results are lasting.			

## **4.8 Sources of information for the preparation of the TE review in addition to the TE (if any)** Project Appraisal Document, SAR, IEG evaluation summary