



USAID | **SUDAN**
FROM THE AMERICAN PEOPLE

SUDAN TRANSITIONAL ENVIRONMENT PROGRAM FINAL REPORT



June 2009

This report is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of International Resources Group (IRG) and do not necessarily reflect the views of USAID or the United States Government.

Front Cover: The participants from a STEP-sponsored Environmental Impact Assessment Training Course get ready to board a chartered airplane to return to their respective organizational bases. Charter planes were one of the only means of bringing people together in Southern Sudan for a training course during the early days of the STEP Program.

Credit: Tom Catterson

SUDAN TRANSITIONAL ENVIRONMENT PROGRAM

FINAL REPORT

Contract No. EPP-I-00-03-00013-00

Order No. EPP-I-05-03-0013-IRG

Prepared by
Bruce Kernan and Thomas Catterson
Juba, Southern Sudan

TABLE OF CONTENTS

Executive Summary	1
1. Introduction	3
1.1 Purpose and Structure of the Report.....	3
1.2 Overview of the Sudan Transitional Environment Program	3
2. Review of the Performance Measures.....	10
2.1 Performance Measure 1: Framework for Environmental Institutions and Policy.....	10
2.2 Performance Measure 2: Environmental Threats and Opportunities Assessment.....	12
2.3 Performance Measure 3: Environmental Impact Assessment Training.....	13
2.4 Performance Measure 4: Environmental Association	16
2.5 Performance Measure 5: Study Tours	19
2.6 Performance Measure 6: Road Rehabilitation Programmatic Environmental Assessment	22
2.7 Performance Measure 7: Forest Governance.....	24
2.8 Performance Measure 8: BOMA Wildlife Training Center	26
2.9 Performance Measure 9: Environmental Standards for the Petroleum Sector in Southern Sudan	28
2.10 Performance Measure 10: Crisis Modifier.....	29
2.11 Performance Measure 11: Solid Waste.....	30
2.12 Performance Measure 12: Trans-boundary Parks	31
3. Conclusions	33
3.1 Achievements.....	33
3.2 Contribution to Peace and Stability	34
3.3 Design and Implementation.....	35
3.4 Unfinished Processes	36
Documentation	38
ANNEX A.....	42
Disposition Plan: Sudan Transitional Environment Program (STEP)	42

ACRONYMS

AFEX	Africa Expeditions
BWTC	Boma Wildlife Training Center
CPA	Comprehensive Peace Agreement
COTR	Contracting Officer's Technical Representative
CRS	Catholic Relief Services
DEA	Directorate of Environmental Affairs
DF	Directorate of Forestry
DIC	Development Impact Consulting
DWC	Directorate of Wildlife Conservation
EIA	Environmental Impact Assessment
EPIQ II IQC	Environmental Policy and Training Indefinite Quantity Contract
ESDM	Environmentally sound design and management
ETOA	Environmental Threats and Opportunities Assessment
FAO	Food and Agriculture Organization
GOS	Government of Sudan
GoSS	Government of Southern Sudan
IDP	Internally Displaced People
IRG	International Resources Group
KFTC	Kagelu Forestry Training Center
KWSTI	Kenya Wildlife Service Training Institute
MAF	Ministry of Agriculture and Forestry
MDTF	Multi-Donor Trust Fund
MEWCT	Ministry of Environment, Wildlife Conservation and Tourism
MSI	Management Systems International
MTR	Ministry of Transport and Roads
NEMA	National Environmental Management Authority (Kenya)
PEA	Roads Programmatic Environmental Assessment pg 13

PEA	Programmatic Environmental Assessment
PM	performance measures
PO	Purchase Order
SIP	Sudan Infrastructure Project
SPLM	Sudan People's Liberation Movement
SRS	Sudan Radio Service
SSARP	Southern Sudan Agricultural Revitalization Program
SSNEA	Southern Sudan National Environmental Association
STEP	Sudan Transitional Environment Program
USG	United States Government
UNEP	United Nations Environment Programme
VEGA	Volunteers for Economic Growth Alliance
WCS	Wildlife Conservation Society

EXECUTIVE SUMMARY

The purpose of this report is to review and assess the activities and achievements of the Sudan Transitional Environment Program (STEP). STEP was implemented in Southern Sudan between August 12, 2005 and August 31, 2009. Its purpose was to strengthen Southern Sudan's capacity to assess and monitor environmental impacts of development projects and to reduce conflict over the exploitation of natural resources. STEP had 12 components, referred to as performance measures (PM).

International Resources Group (IRG) was the lead contractor for the implementation of STEP. Its subcontractors were the Cadmus Group and PACT/Kenya and, starting in 2006, Winrock International. STEP was not designed to work with or through only one Southern Sudanese institution. Its principal counterparts in the Government of Southern Sudan (GoSS), however, were the Directorate of Environmental Affairs (DEA) and the Directorate of Forestry (DF). STEP also worked with the Kagelu Forestry Training Center, the Boma Wildlife Training Center, the Southern Sudan National Environmental Association, the Directorate of Wildlife Conservation, the Directorate of Tourism, and the Ministry of Transport and Roads.

STEP started as a relatively small activity of 18 months with a budget of \$1.2 million and six components called performance measures. In 2006, USAID/Sudan added \$4.6 million and four performance measures to STEP. The new performance measures were intended to reduce conflict associated with forestry, wildlife, and petroleum. In 2007, USAID/Sudan added US\$ 2.5 million and two additional performance measures concerning solid waste in Juba and trans-boundary "peace parks." However, the \$2.5 million was never actually obligated with IRG and STEP's total budget remained at \$5.8 million.

The following table provides a synopsis of STEP performance measures and their status and achievements.

Summary of the STEP Performance Measures and Status/Achievements

	Title	Performance Measure	Status at Program Completion
1	Framework for Environmental Institutions & Policy	Environmental policy statement legally approved	Effective policy working group established within the Directorate of Environmental Affairs Draft Policy and Law completed & discussed
	Administrative Strengthening	Directorates of Environmental Affairs & Forestry administratively capable	59 people trained in public administration
2	Sudan Environmental Threats and Opportunities Assessment (ETOA)	Revision of 2003 ETOA completed	ETOA updated
3	Environmental Impact Assessment (EIA) Training	500 people trained in EIA methodology and other environmental management skills.	18 short courses offered 517 people trained 681 person-weeks of training
4	Environmental Association	South Sudan National Environmental Association established & operational.	South Sudan National Environment Association (SSNEA) established and legally registered with GoSS
5	Study Tours	6 study tours completed	4 Study Tours to neighboring African countries- Uganda, Kenya, Ghana and Namibia, completed. USAID and IRG agreed that the benefits of proceeding with the remaining two did not justify the cost.
6	Programmatic Environmental Assessment for Road Rehabilitation in Southern Sudan	PEA completed	Roads PEA completed & distributed. Its provisions are being incorporated into USAID road contracts Major roads course provided to 59 staff from all ten Southern Sudan States.
7	Forest Governance	Timber resource utilization policies, laws & regulations enacted & operational	Training & reports completed on forest concessions & forest management, sawn wood markets.
	Kagelu Forestry Training Center (KFTC)	KFTC graduating forestry technicians	16 graduates (2007) 20 graduates (2008) Curriculum review completed Draft Strategic Plan completed
	KFTC Water System	Water system functional	Water system fully rehabilitated and functional
8	Boma Wildlife Training Center (BWTC)	BWTC training wildlife officers	39 wildlife officers trained Transition Plan completed
	Water & Sanitation System	Water system functional	Water resources survey carried out. Local water supply program operating in Boma drilled a new well for the Training Center.
9	Petroleum Environmental Standards	Petroleum environmental exploration and production standards enacted and operational.	Scoping Statement for PEA completed, at which point USAID advised that no further work on the PEA should be carried out. STEP provided expertise for US Consul General high level GoSS training course
10	STEP Crisis Modifier Component.	Action contingency planning....	Was not needed during the course of the contract
11	Solid Waste in Juba	Improved mechanisms established to collect & dispose of solid waste in Juba established (provisional)	Important advocacy and studies that resulted in the establishment of a waste dumping ground outside Juba Plastic recycling pilot project completed
12	Trans-boundary Peace Parks	Conservation actions in & around protected areas lying on the Southern Sudan-Uganda border contribute to the resolution of transboundary conflicts.	2 trans-boundary meetings. 2 vehicles for Directorate of Wildlife Conservation. 4 participants complete certificate training at the African College of Wildlife Management in Mweka, Tanzania Activities handed over to Wildlife Conservation Society which had similar funding.

I. INTRODUCTION

I.1 PURPOSE AND STRUCTURE OF THE REPORT

The purpose of this report is to review the activities and achievements of the USAID-funded Sudan Transitional Environment Program (STEP). STEP, with a budget of US\$ 5.8 million, was implemented in Southern Sudan between August 12, 2005 and August 31, 2009. Its purpose was to strengthen Southern Sudan's capacity to assess and monitor environmental impacts of development projects and to reduce conflict over the exploitation of natural resources. The program activities to achieve that purpose were grouped under twelve components, referred to as performance measures (PM).

Section I provides an overview of STEP's design and implementation. Section II records and discusses the rationale, implementation arrangements, activities, and achievements for each of STEP's 12 components (performance measures). It constitutes the principal body of this report. Section III draws conclusions about STEP's design, implementation and the remaining challenges to environment sector development in Southern Sudan.

I.2 OVERVIEW OF THE SUDAN TRANSITIONAL ENVIRONMENT PROGRAM

USAID/Sudan Country Strategy

On January 9, 2005, the Sudan People's Liberation Movement (SPLM) and the Government of Sudan (GOS) signed the Comprehensive Peace Agreement (CPA), bringing to an end Africa's longest civil war. The United States is committed to supporting the successful implementation of the CPA. USAID/Sudan and its humanitarian assistance and development programs play a central role in fulfilling that commitment.

USAID/Sudan's 2006 to 2008 strategy was to support the implementation of the CPA through designing, financing, and carrying out activities that help to achieve the strategic objective of "peace and stability." USAID/Sudan identified nine types of priority activities that help to reduce the level of these threats to the CPA. These activities were expected to: (1) avert and resolve conflict; (2) promote stability and economic recovery; (3) foster democratic reform; (4) strengthen institutions; (5) develop human capacity; (6) increase access to accurate and reliable information; (7) develop participatory governance; (8) increase government accountability and transparency; and (9) promote the development of infrastructure. It can be fairly said that STEP contributed in some way to all of these Mission strategy objectives.

STEP Contract and Contract Modifications

The contract for STEP was awarded to the International Resources Group (IRG) as a task order under the EPIQ II IQC on August 12, 2005.¹ STEP was conceived as a small program, lasting only 18 months and with a budget of \$1.2 million. The original six performance measures included as part of STEP were primarily expected to enhance institutional and human capacity for environmental impact assessment. There was a conviction at the time that humanitarian relief and development activities in Southern Sudan would require massive infrastructure investments which could, if improperly implemented, lead to

¹ The Environmental Policy and Training Indefinite Quantity Contract (EPIQ II IQC) was the principal contractual mechanism for this Task Order that authorized IRG to implement STEP on behalf of USAID/Sudan

adverse environmental impacts and be generally less sustainable. USAID/Sudan planned to follow the STEP program with a larger and longer environmental program.

In September 2006, USAID/Sudan made a contract modification in order to align STEP with its strategic statement for 2006 to 2008. The modification increased STEPS's budget to \$5.8 million, extended its ending date to September 30, 2009, substituted an update of the 2003 *Sudan Environmental Threats and Opportunities Assessment* for the design of a new environmental program, and added four new performance measures that were mainly concerned with averting and resolving conflicts over the exploitation of natural resources.

In September 2007, another contract modification added \$2.5 million to STEP's budget to finance activities in community forestry, solid waste management in Juba, and "trans-boundary peace parks" along Southern Sudan's border with Uganda. However these funds were never obligated, so STEP's budget remained \$5.8 million. In April 2009, a further contract modification cancelled the performance measure concerned with environmental guidelines for oil exploration and production.

Institutional Responsibilities

IRG was the lead contractor for the implementation of STEP. Its initial subcontractors were the Cadmus Group and PACT/Sudan. IRG took direct responsibility for the implementation of the performance measures related to institutional strengthening (PM 1), environmental impact assessment training (PM 3), environmental guidelines for petroleum exploration and production (PM 9), solid waste management (PM 11), and trans-boundary peace parks (PM 12).

IRG and the Cadmus Group worked together to prepare the updated Environmental Threats and Opportunities Analysis (PM 2) and the Programmatic Environmental Assessment of Road Rehabilitation (PM 6). With IRG guidance, the Cadmus Group had main responsibility for starting the Southern Sudan National Environmental Association (PM 4), although PACT/Sudan assisted. The Cadmus Group also organized study tours to other sub-Saharan countries (PM 5). The participation of PACT/Sudan ended in early 2006 and that of the Cadmus Group in September 2007.

In September 2006, as part of the contract modification, IRG brought Winrock International onto the STEP team as a subcontractor to implement the activities involving the development of forest governance models and continuing support for the Kagelu Forestry Training Center that had been added as PM 7. Winrock's participation in STEP finished at the end of April 2009.

Counterpart and Collaborating Institutions

STEP was not designed to work with or through only one Southern Sudanese institution. Part of the reason that STEP was originally conceived as a "transitional" program was because there was great uncertainty at the time about the eventual development of the governance arrangements for Southern Sudan. In October 2005 however, when the GoSS established the Directorate of Environmental Affairs (DEA) in the Ministry of Environment, Wildlife Conservation and Tourism (MEWCT), it became STEP's principal counterpart institution. This role continued when the DEA was transferred in January 2009 to the Ministry of Housing, Physical Planning, and Environment. For the forestry activities of PM 7, the Directorate of Forestry (DF) in the Ministry of Agriculture and Forestry (MAF), and the Kagelu Forestry Training Center (KFTC) were STEP's main counterpart institutions.

Other institutions with which STEP interacted include the Directorates of Wildlife Conservation and Tourism in the MEWCT, the Ministries of Energy and Mines, Transport and Roads, Water Resources, Public Administration, and Legal Affairs, the University of Juba, the Southern Sudan National Environmental Association (SSNEA), and Safi Cleaners, Ltd.

STEP also coordinated and collaborated with other development projects and international institutions. For example, it worked with the USAID Sudan Infrastructure Project (SIP) in the preparation of the programmatic environmental assessment of road rehabilitation and subsequently, with the Sudan Infrastructure Training Project, on a course about the design of low volume roads. STEP and the USAID VEGA/AMED project collaborated in the design and implementation of a pilot plastic recycling project. Together, STEP and the Wildlife Conservation Society (WCS) supported the Boma Wildlife Training Center and the establishment of trans-boundary peace parks along the Southern Sudan's border with Uganda. STEP collaborated with the United Nations Environment Programme (UNEP) in the production of the *Post-Conflict Environmental Assessment for Sudan* and comments and suggestions for improvement of the report appear on almost every page.

Personnel

STEP's Team Leaders were Mr. Thomas Catterson, from August 2005 to July 2007, and Mr. Bruce Kernan, from July 2007 to July 2009. Both also served as STEP's advisors in environmental policy. Ms Jane Kahata was STEP's part-time training coordinator. Mr. Sean White, working for Winrock, was the full-time Forestry Advisor from October 2006 to April 2009. Mr. Tito Kodiaga was STEP's organizational advisor. He worked approximately half-time for the Cadmus Group from August 2005 to July 2007. Over the life of the program, STEP also contracted for a total of approximately 25 person-weeks with seven different short-term technical advisors. Table 1 summarizes STEP's long and short-term technical advisors.

Table 1. Summary of STEP personnel by technical specialty, name, organization, performance measure, and dates of work

Technical Specialty	Name	Organization	PM	Dates
Policy	Thomas Catterson	IRG	All	Aug. 2005 – July 2007
Policy	Bruce Kernan	IRG	All	July 2007 – July 2009
Forestry	Sean White	Winrock	7	Oct. 2006 – Apr. 2009
EIA Training	Jane Kahata	IRG	3	Aug.2005 – June 2009
Organization	Tito Kodiaga	Cadmus	4, 5	Aug 2005 – Aug 2007
EIA	Karen Menzcer	Cadmus	2, 6	Feb. 2006 & July 2007
Wildlife Policy	Richard Salter	IRG	1	July-Aug 2006
Policy	Russ Misheloff	IRG	1	June 2007
Training Needs	Bernard Oloo K'omudho	IRG	3	Sept.-Oct 2006
Organization	Wes Fisher	Cadmus	3,4	Nov. 2005
Organization	Douglas Ouma	PACT/Kenya	4	Jan.-Feb. 2006
Petroleum EIA	Jon Cooper	IRG	9	March 2007



Basic Accommodations in Southern Sudan. During the first two years of STEP, team members were based in Southern Sudan where the accommodations were still quite basic. In this photo, STEP's Training Coordinator, Ms. Jane Kahata, is shown in her tent at the Africa Expeditions (AFEX) camp in Rumbek. These tents served as both home and office. As can be seen, these tents were quite comfortable except perhaps during the hot dry months preceding the onset of the rains in April when temperatures in Rumbek could easily climb into the high 40s Celsius.

Location of STEP Activities

STEP's activities got underway in Rumbek, in Lakes State, before the GoSS was officially formed. After the program moved to Juba, many of the activities occurred in Juba and Kagelu, both located in Central Equatoria State, although many were carried out throughout the states of Southern Sudan. Training courses, workshops and SSNEA meetings, by design and intention, included representatives from all the states of the country. Table 2 summarizes the location of STEP's activities by PM and state.

Table 2. Distribution of STEP activities by state

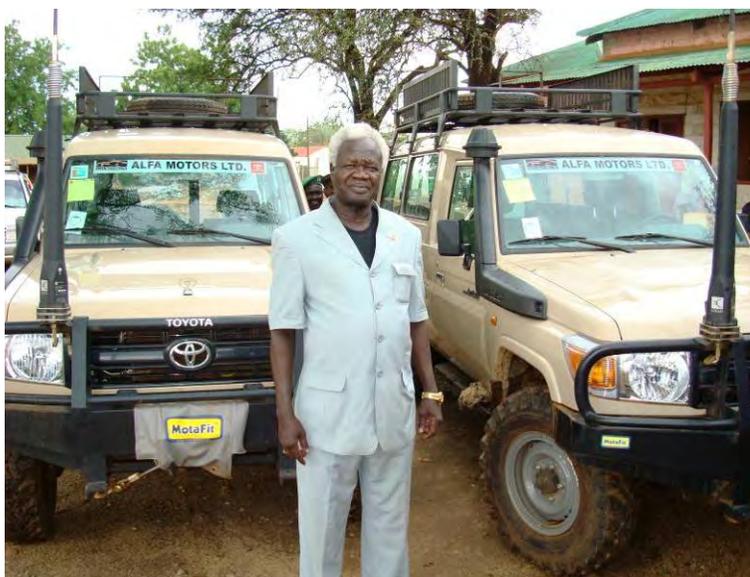
State	PM	Activities
Western Equatoria	2, 6, 7	Timber inventory, Roads PEA, ETOA
Central Equatoria	1, 2, 3, 6, 7, 9, 11	Policy, EIA training, timber inventory, Roads PEA, Solid Waste Kagelu Forestry Training Center, ETOA, Petroleum Scoping
Eastern Equatoria	2, 3, 6, 7	Timber inventory, EIA training, Roads PEA
Jonglei	2, 3, 8, 9	EIA training, Boma Wildlife Training Center, Roads PEA, ETOA Petroleum Scoping
Upper Nile	3	EIA training
Lakes	2, 3, 6	EIA training, Roads PEA, ETOA
Southern Kordofan (the Nuba Mtns)	3	EIA training
Western Bhar el- Ghazal	7	Teak reconnaissance survey
Northern Bhar el-Ghazal	7	Teak & plantation reconnaissance survey

Equipment

STEP was not designed to provide equipment, materials or infrastructure to its counterpart GoSS institutions. Nonetheless, it did provide some equipment and materials that were considered necessary for its counterpart institutions to be able to collaborate effectively with the activities that STEP was financing. Also, the equipment, such as computers and printers, telephones and radios, and vehicles that STEP required in order to operate were turned over to the Directorates of Environmental Affairs, Forestry, and Wildlife upon completion of STEP.

STEP expended funds on six vehicles. In 2005, a Nissan Patrol was purchased for the use of the STEP Team operating in Southern Sudan. In 2006, another vehicle was purchased in order to provide for the transportation needs of the forestry advisor who would be working under PM 7. In 2008, as part of PM 12 – Transboundary Peace Parks, STEP purchased two Toyota Land Cruisers hardtops especially equipped for off-road use and wildlife management duties in the protected areas. They were delivered directly to the Directorate of Wildlife Conservation and were expected to be used in Nimule National Park and Kidepo Game Reserve near Torit.

USAID/Sudan also arranged for the transfer of a Toyota Land Cruiser from Catholic Relief Services (CRS) to STEP. STEP expended funds on the repair of this vehicle. It was disposed of to the Directorate of Environmental Affairs. STEP also expended funds on the repair of a Toyota Land Cruiser that the Ministry of Agriculture and Forestry assigned to the inventory unit of the Directorate of Forestry.



Transboundary Peace Parks. As a result of a USAID initiative to link Southern Sudan with Uganda for the purposes of avoiding conflict in the protected areas along their common border, STEP procured and handed over two specially equipped Toyota Landcruiser Hardtop vehicles. In the photo, Major General Alfred Akwoch Omoli, Under-Secretary for Wildlife Conservation in the GoSS takes delivery of these two vehicles. One was to be used in the Nimule National Park and the other in the Kidepo Game Reserve.

Annex A is the disposition plan approved by USAID for handing over this equipment to GoSS counterpart organizations.

Infrastructure

STEP was also not designed for improving or expanding the infrastructure of its counterpart Southern Sudanese institutions. However, it did finance and implement two infrastructure projects.

The first project was the rehabilitation of the water system at the Kagelu Forestry Training Center (KFTC) 15 km to the southwest of Yei. Through the Southern Sudan Agricultural Revitalization Program (SSARP), USAID/Sudan had financed the establishment of the KFTC, including the rehabilitation of part of its infrastructure. Before it closed in early 2006 however, SSARP was unable to put KFTC's water system into full operating condition. Therefore, in mid-2006 the USAID CO/TR asked the STEP Team Leader to arrange for the rehabilitation of the water system as part of the responsibilities in continuing to support the KFTC. This was done by the end of 2007 at a cost of

\$118,000. A separate report has been prepared on the rehabilitation of the water system at the Kagelu Forestry Training Center.

The second infrastructure project was to rehabilitate two offices located in the compound of the Forestry Department of Central Equatorial State in Juba. Under an arrangement with the State Forestry Department, these offices were to be utilized by the forest inventory unit of the Directorate of Forestry of the GoSS Ministry of Agriculture and Forestry which lacked an office. The rehabilitation was completed in September of 2008.

Monitoring and Evaluation

Three methods were used to monitor and evaluate STEP: (1) quarterly reports; (2) yearly USAID performance reports; and (3) a mid-term evaluation in mid-2008.

Quarterly reports provided a more detailed review of STEP's activities and progress towards its target outputs. STEP team leaders prepared 15 quarterly reports, the first dated September 30, 2005. STEP's quarterly reports provide a detailed description of the project's activities during the previous three months, an evaluation of its progress towards the output targets for each performance measure, and a description of the activities that STEP would undertake during the following three months. Starting with the September 30, 2007 report, a quantitative section was

added to the quarterly report's format in response to a request from STEP's Contracting Officer's Technical Representative (CO/TR) for more quantitative data. Starting with that quarterly report, the Team Leader also began personally reviewing the draft report with the CO/TR to incorporate his recommendations and comments with the standard outline of these reports.

STEP's performance monitoring plan had four indicators: (1) number of study tours, (2) number of hectares under improved natural resources or biodiversity management, (3) number of policies promoting sustainable natural resource management, and (4) number of people receiving United States Government (USG)-supported training in environmental impact assessment, resource management or biodiversity conservation. The STEP Team Leader and the STEP CO/TR filled out the forms of the performance monitoring plan once a year.

At the request of USAID/Sudan, a mid-term evaluation was carried out by a team under the aegis of the Mission's Management Systems International (MSI) support contract in mid-2008. The MSI evaluation



This water tower was rehabilitated and reactivated to provide water pressure throughout the water system at the Kagelu Forestry Training Center. Clean water in the KFTC kitchen and showers for the students added immeasurably to the quality of life for the faculty and students. Photo by Barasa Wasike.

team verbally presented its findings to a meeting of USAID and STEP personnel on July 15, 2008. The STEP Home Office Manager reviewed a draft of the mid-term evaluation and provided the evaluation team with extensive and detailed comments. The evaluation team incorporated those comments into a final report which it presented in September 2008.

Documentation

In addition to the regular reporting, the STEP program produced a good deal of professional and technical publications, too numerous to discuss at length in this Final Report. A documentation list is included at the end of the Report. In the early days of the project, UNEP and STEP combined to establish an Environmental Information Center within the Ministry of Environment, Wildlife Conservation and Tourism. Both organizations contributed numerous publications to the collection. As a result of the renovations of the Ministry building, this collection was put in storage and remains there for the time being. Since the DEA has been transferred to another GoSS Ministry, plans are underway to re-establish the Environmental Information Center. Ideally, this Center will include both hard copy and electronic files, to which the documentation from STEP can be added with relative ease.

2. REVIEW OF THE PERFORMANCE MEASURES

Section II describes and discusses each of STEP's performance measures in terms of its rationale, implementation, activities, and achievements.

2.1 PERFORMANCE MEASURE 1: FRAMEWORK FOR ENVIRONMENTAL INSTITUTIONS AND POLICY

Rationale

Performance Measure 1 was intended to assist the Government of Southern Sudan to increase public institutional capacity to identify and reduce the adverse environmental effects of the investments in infrastructure that were expected to occur after the Comprehensive Peace Agreement was signed.

Implementation

Performance Measure 1 was implemented directly by IRG. The counterpart institution for PM 1 from October 2005 until January 2009 was the Ministry of Environment, Wildlife Conservation and Tourism, in particular the Directorate of Environmental Affairs. In January 2009, the DEA was moved to the Ministry of Housing, Physical Planning and Environment but remained STEP's principal counterpart institution for PM 1.

Activities

Activities under PM 1 concerned administrative strengthening of the MEWCT and the drafting of an environmental policy.

During STEP's first two years, the Team Leader devoted much of his time to activities intended to strengthen the MEWCT. He prepared guidance memorandums for senior MEWCT staff, assisted the MEWCT in preparing its 2006 budget proposal to the Ministry of Finance, and coordinated between the MEWCT and the Capacity Building and Multi-Donor Trust Funds. Upon moving to Juba in 2006, he occupied an office within MEWCT which permitted him to provide assistance and advice daily to the Under-Secretary and Senior Staff of the Ministry.



Wildlife Policy Advisor Mr. Rick Salter visiting the Boma National Park. From the left, Mr. Salter, Brigadier Kolor Pino, Park Warden, Mr. Isaac Seme, Tutor at the Boma Wildlife Training Center, and members of the Wildlife Ranger cadre assigned to the Park. Photo by Tom Catterson.

Of particular interest during that period, the STEP Team Leader assisted DEA to negotiate a Memorandum of Understanding with the Kenya National Environmental Management Authority (NEMA) for cooperation and training which ultimately led to an internship program there for Sudanese staff. This was also the period of intense cooperation with UNEP which resulted in the production of the *Post-Conflict Environmental Assessment for Sudan*. Additionally, Mr. Richard Salter, a specialist consultant in redeployment of wildlife forces after conflicts, was fielded to advise the MEWCT on the policy issues and implications of how to best redeploy the thousands of ex-soldiers who had been assigned to the Directorate of Wildlife Conservation.

In an effort to continuing strengthening basic capabilities at the counterpart ministries, the Kenyan consulting firm Development Impact Consulting (DIC) gave a two-week course on the basics of public administration in mid-2008. Fifty-seven members of the staff of MEWCT and the DF of MAF attended. DIC also prepared an assessment of the training required by the staff of the Ministries of Agriculture and Forestry and MEWCT and a proposal for a second phase of administrative training, for only DEA.

In June 2007, Mr. Russ Misheloff, from IRG, prepared a draft environmental policy statement for Southern Sudan. In the process it became clear that the other GoSS ministries, assembled as an inter-ministerial commission to complete the environmental policy, would find it difficult to participate in the early drafting stages of such a basic sectoral document. Therefore, in November 2007, the Under-Secretary of MEWCT instead established an environmental policy task force, whose members were 10 professionals in DEA. The task force reviewed Mr. Misheloff's draft, environmental policies from other countries, and the reports on the study tours STEP had sponsored to Kenya, Uganda, Ghana, and Namibia and prepared an outline for the environmental policy.

In early 2008, with significant direct support from STEP, the task force made trips to the 10 states of Southern Sudan in order to begin a consultative process and identify the environmental issues therein. In June 2008, the task force, again with support from STEP, prepared a draft environmental policy which it reviewed and revised between July and December. From February to June 2009, the draft environmental policy was reviewed and discussed in 14 open meetings concurrently with an environmental law which had been drafted by the Ministry of Legal Affairs. Participants came from other GoSS ministries, the Equatoria State and Juba County governments, the University of Juba, and other international projects. As STEP came to a close, these meetings were still occurring.

Discussion

One of PM 1's aims was to increase the nascent capabilities of the MEWCT, in particular of the Directorate of Environmental Affairs, as an increasingly effective institution. Prerequisites for an effective public institution are (1) a supporting policy, law, and regulation; (2) adequate budget and timely disbursements; (3) sufficient technically and administratively capable staff; (4) sufficient equipment and materials; (5) sufficiently large and equipped office space; (6) widespread public support; (7) effective, visionary leadership; and (8) support of political leaders.

STEP provided some assistance towards meeting each of these prerequisites – in particular, for an environmental policy, adequate budget, staff, and equipment and materials. STEP organized and financed the preparation through a participatory process of drafting the environmental policy. STEP's advice helped the MEWCT to increase its budget ceiling from \$15 million for 2007-2008 to \$30 million for 2008-2010. It provided training that improved MEWCT's administrative and technical capabilities and provided small amounts of equipment. While much remains to be done it is important to note that at the outset of the program, there was little or no capacity of any kind and very limited staffing to cover the issues of environmental impact assessment and mitigation within the Government of Southern Sudan.

PM 1's other aim was to assist the DEA to produce an environmental policy for Southern Sudan and get it officially approved. A draft environmental policy has been prepared through an open, transparent, participatory process. Through STEP's efforts, the Ministry of Legal Affairs has concurrently prepared a draft environmental law. Potential inconsistencies between the environmental policy and law are thus being avoided and the public reviews have included both the draft law and policy.

STEP came to a close while the draft policy and law were still being discussed. The involvement of the Ministry of Legal Affairs, however, increases the probability that the environmental policy and law will be pushed through the Council and Ministers and presented to the Legislative Assembly for approval, even without further assistance from STEP.

2.2 PERFORMANCE MEASURE 2: ENVIRONMENTAL THREATS AND OPPORTUNITIES ASSESSMENT

Rationale

PM 2 was originally called an "assessment of options for a 3 – 5 year environment program" and was a mechanism for USAID to design a larger and longer environmental program. By late 2005, however, USAID/Sudan had decided to simply amend the ongoing STEP task order to add resources and widen its mandate in line with the principles and objectives of a newly developed country strategy. Sections 118 and 119 of the Foreign Assistance Act require each USAID country strategy to include an analysis of its potential effects on tropical forests and biodiversity. USAID/Sudan, therefore, changed PM 2 from the assessment of options to an update of its 2003 report for Sections 118 and 119, which it refers to as an "Environmental Threats and Opportunities Assessment (ETOA).

Implementation

IRG took direct responsibility for the preparation of the updated ETOA. The STEP Team Leader led a team consisting of Sean White, the STEP Forestry Advisor, and Karen Menczer, a consultant from STEP subcontractor the Cadmus Group, in the preparation of the updated ETOA. Cecilia Mogga and Nixon Faustino Lawrence Legge, staff members from the Directorate of Environmental Affairs participated in the field trips.



ETOA Field Work in Yambio: Ms. Karen Menczer, the STEP ETOA Consultant is seen here interviewing senior members of the Wildlife Ranger cadre at Yambio in Western Equatoria State about the threats to biodiversity conservation in the local area.

Activities

The ETOA team made several field trips, the first of six days to Lakes State, where it examined urban environmental issues, and a second to Western Equatoria State, where it examined urban, forestry, and wildlife issues. Shorter trips in and around Juba in Central Equatoria State as well as in-depth discussions with the first STEP Team Leader and the Director of Environmental Affairs, about their observations of environmental conditions elsewhere in the country rounded out the fact finding efforts

for this study. The final version of the updated ETOA was finished in mid-2008 and circulated among both donor and GoSS representatives for review and comment. USAID/Sudan has subsequently distributed the final version of the ETOA widely.

During the preparation of the ETOA, STEP collaborated with the United Nations Environment Programme (UNEP) which was concurrently preparing the report entitled *Post-Conflict Environmental Assessment for Sudan*. The team leader helped UNEP to organize a workshop on the topic “Towards a National Environmental Management Plan,” and provided detailed comments on a draft of the UNEP report.

Discussion

The updated ETOA makes three general recommendations to USAID/Sudan: (1) avoid or mitigate adverse environmental threats from USAID activities, (2) support biodiversity conservation, and (3) support forest conservation. USAID/Sudan has implemented these recommendations.

In April 2009, Mr. Wes Fisher, in an assessment of its compliance with USAID environmental regulations, concluded that USAID has a system in place that provides the means to avoid or mitigate the adverse environmental effects of the activities it finances. He noted that the Sudan Infrastructure Program has incorporated the environmental provisions recommended by the STEP’s Roads Programmatic Environmental Assessment (PEA). USAID/Sudan is implementing the ETOA’s second recommendation by providing financing to the WCS to carry out a project to conserve the Jonglei landscape, which contains important genetic, species, and ecosystem biodiversity. Until December 2008, USAID/Sudan was supporting forest conservation through STEP’s forestry activities under PM 7. Under its BRIDGE project in the three areas, USAID/Sudan is continuing to finance some forestry activities with non-wood forest products, such as gum Arabic and lulu oil.

2.3 PERFORMANCE MEASURE 3: ENVIRONMENTAL IMPACT ASSESSMENT TRAINING

Rationale

STEP’s original purpose was to develop institutional and human resources capacity for the environmental analysis and planning necessary for Southern Sudan to conserve its natural and environmental resources, so PM 3 was a core STEP activity. When the GoSS established MEWCT in October of 2005, the scope of PM 3’s training was widened beyond environmental impact assessment to also include the types of technical and administrative training its staff most urgently required.

Implementation

IRG took direct responsibility for implementing PM 3. Ms. Jane Kahata, a specialist in training in environmental impact assessment, was placed in charge, and short-term technical specialists were contracted as necessary to give courses in environmental impact assessment.

IRG also arranged for the technical and administrative training given under PM 3 through contracts with appropriate institutions, such as the Kenya National Environmental Management Authority (NEMA), the Kenya Wildlife Service Training Institute (KWSTI) at Naivasha, Kenya, and Development Impact Consultants, Inc. (DIC).

Activities

Table 3 summarizes the training courses STEP organized and financed under PM 3 between August 2005 and June 2009. Training was given in three areas: environmental assessment, technical subjects, and public administration.

During its first two years, STEP concentrated its training activities on short-courses in environmental impact assessment.² It organized eight short courses, each one lasting five work days, that took place between January 2006 and March 2008 in Boma, Rumbek, Juba, Kauda, Bor, and Malakal. During 2006, STEP also arranged for the participation of DEA staff in environmental assessments being carried out for the petroleum exploration operations of the White Nile Petroleum Corporation and in the preparation of the road rehabilitation PEA (see below). In 2007, STEP financed the participation of three members of SSNEA at a conference on participatory environmental assessment. During late 2008 and early 2009, STEP financed 42 person-weeks of in-service training in environmental impact assessment for six members of the DEA staff at the Kenyan National Environmental Management Authority.

Table 3. Summary of STEP Training Courses under Performance Measure 3 from August 2005 to June 2009

COURSES	No. of Participants			Person-Weeks of Training		
	Men	Women	Total	Men	Women	Total
ENVIRONMENTAL ASSESSMENT	203	73	276	221	91	312
Percentages	74%	26%	100%	71%	29%	100%
EIA, 2006 (Boma)	30	9	39	30	9	39
EIA, 2006 (Rumbek)	21	15	36	21	15	36
EIA, 2006 (Rumbek)	15	17	32	15	17	32
EIA, 2007 (Juba)	30	8	38	30	8	38
EIA, 2007 (Kauda)	30	2	32	30	2	32
EIA, 2007 (Bor)	39	6	45	39	6	45
EIA, 2007 (Juba)	10	8	18	10	8	18
EIA, 2008 (Malakal)	22	4	26	22	4	26
Participatory , 2007,(Kampala)	2	1	3	2	1	2
USAID environmental review, 2009 (Kapoeta)	1	0	1	1	0	1
In-service at Kenya NEMA, 2008-2009, (Nairobi)	3	3	6	21	21	42
TECHNICAL	69	60	129	94	61	155
Percentages	53%	47%	100%	61%	29%	100%
GIS, 2007, (Nairobi)	4	1	5	8	2	10
Ecotourism, 2007 (KWTI-Naivasha)	4	0	4	16	0	16
Ecotourism, 2008 (Nairobi)	1	1	2	1	1	2
Wetlands Management, 2007, (KWTI-Naivasha)	2	0	2	12	0	12
Environmental Road Design, 2008, (Juba)	57	2	59	57	2	59
Environment Management, 2008, (Rumbek)	0	56	56	0	56	56

² STEP itself did not develop this course. Rather, ENCAP, a training project for African countries and USAID Missions financed by the Africa Bureau of USAID and implemented by IRG and the Cadmus Group, had developed the course previously and it had been given many times in other African countries. However, at the outset of STEP, the basic course was modified to be better adapted for Southern Sudanese conditions and a number of Sudan-specific training modules and materials were created for that purpose.

COURSES	No. of Participants			Person-Weeks of Training		
	Men	Women	Total	Men	Women	Total
ADMINISTRATION	83	29	112	161	53	214
Percentages	74	26	100	75	25	100
Computer Programs 2006 (Juba)	22	7	29	44	14	58
Public Administration, 2008, (Juba)	56	17	73	112	34	146
PowerPoint presentations, 2008, (Juba)	5	5	10	5	5	10
TOTAL NO.	355	162	517	476	205	681
TOTAL PERCENTAGES	69%	31%	100%	69%	31%	100%

In 2006, Mr. Bernard Oloo K'omudho O. prepared an assessment of MEWCT's training needs. In agreement with USAID about the opportunities for diversifying the training activities, STEP organized and financed a series of additional training events. These included 7 person-weeks in geographic information systems, 15 person-weeks of training in wetlands management, and 6 person-weeks of training in ecotourism promotion and management. In January 2008, 57 road engineers, supervisors, and contractors from all of the Southern Sudanese states attended a one week course in the design of environmental sound low volume roads. In April 2008, STEP gave a course in environmental management specifically organized for women and delivered in Arabic.

To improve the administrative capabilities of the MEWCT and the Directorate of Forestry, STEP contracted DIC to give a course in public administration that took place twice, for two weeks each time in Juba during June and July 2008.

Almost all the professional and administrative staff of MEWCT and DF attended. DIC also prepared an assessment of their training needs for DF and MEWCT and designed a second phase of training in various aspects of public administration.

Finally, STEP financed various training events in the use of computers for the staff of the DEA by employing the services of a Volunteers for Economic Growth Alliance (VEGA) Volunteer and IT specialist from the Southern Sudanese Diaspora. His course was attended by more than 25 members of the MEWCT.



Group photograph of participants to the first STEP Training Course in EIA/ESD held in Boma, Jonglei State.

Discussion

STEP provided a total of approximately 681 person-weeks of training to a total of 517 people. It thus exceeded its target number of people trained by 17 and its target number of person-weeks of training by 181 person-weeks. Of the total number of person-weeks of training, 312, or 46 percent, concerned

environmental impact assessment, 155 person-weeks, or 23 percent, concerned technical subjects, and 214 person-weeks or 33 percent concerned public administration.

STEP was able to offer 205 person-weeks of training to women, thus achieving a ratio of 1:2 of person-weeks of training of women to men. STEP's target ratio for the training of women to men was 1: 1. STEP's emphasis on EIA training prevented it from attaining the 1:1 target ratio since the selection criteria for participants in the EIA courses, even though relaxed for women, still included educational and English standards that women in Southern Sudan typically could not meet. By contrast, in the technical training only 10 fewer women were trained than men, so STEP came closer to meeting the 1:1 target ratio. This more equal ratio was possible because a specific training course in environmental management was designed and carried out only for women and in Arabic. The ratio for training in administration was 83 men and 29 women a ratio 3:1 reflecting the predominance of men in the Directorates of Environmental Affairs and Forestry. To have achieved the target 1:1 ratio would have required several additional courses for only women.

Training is an “output” level achievement. Its conversion to “outcomes” depends on the use to which the participants in the training put the skill and knowledge with which the training provided them. STEP lacked the funds and means to assess the



Participants at the meeting in Rumbek shortly after their decision to establish the South Sudan National Environment Association.

degree to which the trainees in its courses have utilized their new skills and knowledge since the training courses occurred. Moreover, such use may well occur in the future, after STEP itself has long ended. In any case, although it is rarely possible to ensure training's eventual outcomes, training certainly is an accepted and proven method to improve institutional capacity. The training that STEP organized and financed is certain to contribute to an increased institutional capacity for the environmental analysis and planning necessary for Southern Sudan to conserve its natural and environmental resources.

2.4 PERFORMANCE MEASURE 4: ENVIRONMENTAL ASSOCIATION

Rationale

Performance Measure 4 was intended to strengthen Southern Sudan's environmental impact assessment process by creating a non-governmental association of environmental professionals whose members could provide technical assistance for the preparation of environmental impact assessments, give training in environmental impact assessment, develop best practice sector guidance and guidelines, contribute to the preparation of environmental policies and action plans, monitor the implementation of environmental management plans, and increase public awareness of environmental issues.

Implementation

Under the general direction of IRG and the STEP Team Leader, the Cadmus Group was responsible for implementing Performance Measure 4 and provided Mr. Tito Kodiaga as the intermittent organizational

development specialist. The former participants (the “Alumni”) of the Environmental Capacity Building Project for Sub-Saharan Africa (ENCAP) and STEP-sponsored EIA Training Courses at a meeting in Rumbek in mid-2006 decided to form the Southern Sudan National Environment Association. At the behest of the SSNEA Executive Directorate, IRG also hired Ms. Joyce Janda as a short-term consultant to assist with a first major association event, the celebration of World Environment Day in June 2006. In September 2007, Mr. Kodiaga moved to Washington, DC and could not continue his involvement with STEP. Follow-up activities related to SSNEA then became the responsibility of the STEP Team Leader.

Activities

In late 2005, Mr. Kodiaga and Mr. Wes Fisher of the Cadmus Group wrote a concept paper on how to implement PM 4. They recommended that the non-governmental association be formed by the graduates of the EIA courses. In early 2006, Mr. Kodiaga made a survey of the alumni of the EIA training courses that indicated they were interested in forming an association. The first meeting of the “Alumni Association” was held at the Boma Wildlife Training Center from January 29 to February 2, 2006. Twenty-two graduates of the EIA courses attended. They prepared the “Boma Resolution,” which stated the importance of taking environmental matters into consideration in the peace process in Southern Sudan. They also elected seven people to act as an “Interim Steering Committee” and identified the celebration of World Environment Day as an initial activity for the association to organize.

STEP organized and financed a second meeting of the association from June 27 to 29, 2006 in Rumbek, with 44 participants. That meeting resulted in a draft constitution, the naming of the association as the Southern Sudan National Environmental Association, an interim council of 12 members, and the election of Mr. Lawrence Otika as the interim president. STEP support during the remainder of 2006 and the first half of 2007 was directed at providing the services of a lawyer who worked on the legal establishment of SSNEA and its registration as a local NGO with the GoSS. There was an expectation that SSNEA itself would become active and organize and implement additional activities. Unfortunately, this did not happen despite numerous suggestions for action by both Mr. Kodiaga and STEP Team Leader.

Towards the end of 2007, the new STEP Team Leader attempted to revive SSNEA by writing a draft proposal for its members to become involved in a public environmental education campaign in association with Southern Sudan newspapers and radio stations and meeting a number of times with some members of SSNEA who live in Juba. Members of SSNEA took no action to implement this proposal. In 2008, the Team Leader put some SSNEA members in touch with the Sudan Radio Service (SRS), in hopes that SSNEA members could participate in the preparation of its weekly program on environmental issues. Two members of SSNEA did assist SRS to prepare one radio program on water pollution in Juba. However, they did not continue this association with SRS, and no further activities occurred under Performance Measure 4.

BOMA RESOLUTION

Functions of the SSNEA will be:

1. Conduct assessments of key environmental issues and hazards and provide recommended actions for South Sudan. Highlight:
 - rapid assessment of critical issues with action plan recommendations
 - past experience (including research, studies and development interventions)
 - existing issues
 - possible anticipated large projects (Jonglei Canal, major roads, energy infrastructure, railroad, industrial facilities, irrigation, major water developments, urban water and sanitation, urban development)
2. Play a role in suggesting and providing policy guidance in environment to the Government, such as:
 - as biodiversity conservation
 - advice in environmental impact assessment policy, including human health and welfare
3. Advise in and help facilitate the formation of an National Environmental Authority for South Sudan
4. Assist MEWCT in their role as the lead Ministry working with other Ministries to incorporate environmentally sound design and management (ESDM) into their functions (mainstreaming ESDM across Ministries).
5. Advice and promotion of EIA and environmentally sound design to government, NGOs, and communities, such as:
 - guideline development and promotion for small new and existing projects (schools, health clinics, rural access roads, micro and small enterprise, small scale construction, water development, water harvesting, etc.)
 - highlight environmental issues by sector, such as agriculture, health, education, etc.
 - curriculum development (from tree-planting/agroforestry, basic hygiene and sanitation, hand-washing, solid and human waste management, water management, sustainable agricultural techniques)
 - sensitization through schools, radios, communities in environmentally sound design and management
 - review of EIAs and environmental mitigation and monitoring plans (Environmental Management Plans) and communicating recommendations to the Government and the public.
 - develop Terms of Reference for EIAs
 - follow-up on Environmental Management Plans (EMPs)
6. Promote training in environmental assessment and environmentally sound design and management:
 - roll out Training of Trainers to create a critical mass of trainers at State, County, Payams and Boma levels
 - target older members of communities and community leaders and representatives (women, churches, youth)
 - provide specific training to heads of all Ministries, commissions and corporations to increase their understanding of critical environmental issues in South Sudan
7. Provide information exchange, linkages with other environmental bodies (both internal and external to South Sudan), and networking among environmental management professionals in South Sudan.
8. Act as an independent environmental body to provide advice to State Ministries, NGOs, communities and donors (development partners), e.g., providing added knowledge and sound advice at different levels.

Discussion

In the IRG technical proposal for STEP, the establishment of the non-governmental environmental organization had been defined as: (1) having legal existence through an act of establishment or incorporation; (2) having an active corporate governance structure; (3) having and using a business plan or strategic plan, including a focused work plan for start-up; (4) occupying useable physical facilities; and (5) delivering services.

STEP started with high expectations for Performance Measure 4. The third quarterly report stated hopefully that “increasingly, it will be the Executive Committee of the SSNEA that will take the responsibility for organizing its events, such as the next Quarterly General Membership Meeting to be held in October, with STEP being relegated to an advisory and logistical support role.” Yet by September 2006, the fifth quarterly report said: “The question remains as to whether this voluntary professional organization can operate successfully during this very vibrant period of Southern Sudanese history when so many of its members are just getting involved with new jobs and an emerging economy.” Events proved the doubt. The members of SSNEA have never formally met or taken any action since the Second Quarterly Meeting in June of 2006.

Several factors contributed to the failure of SSNEA. First, any new organization requires capable, dedicated leadership in order to succeed. Shortly after Mr. Lawrence Otika became SSNEA’s interim president, he took a new job with the Food and Agriculture Organization (FAO) in Southern Sudan, which occupied much of his time. Second, most of the prospective members of SSNEA were also newly employed, so it was difficult for them to devote time to a voluntary organization. Third, because of the incipient nature of the organization, SSNEA was unable to offer tangible, personal benefits that would interest its members, such as trips, training or job opportunities. Fourth, SSNEA’s membership was restricted to the graduates of the EIA course, rather than open to all environmental professionals in Southern Sudan, which probably eliminated the participation of people who might have been interested in making the organization work. Clearly, SSNEA is an organization whose time has yet to come. Nevertheless, there are expectations that its members may rekindle the spirit and enthusiasm of the Boma Resolution.

2.5 PERFORMANCE MEASURE 5: STUDY TOURS

Rationale

During the 20 years of civil war in Sudan, a number of other sub-Saharan countries, including Southern Sudan’s neighbors of Uganda and Kenya, established effective environmental policies, laws, regulations, and institutions. In 2005, Southern Sudan was just beginning the process of establishing an institutional and legal framework for protecting the environment. Performance Measure 5 was intended to offer a few Southern Sudanese the chance to draw lessons from the experience of other Sub-Saharan countries for application in the development of environmental policies, laws, regulations and institutions of their country.



Study Tour Team at the Wetlands Inspection Division, Kampala. Photo by Samuel Justin Luete.

Implementation

Mr. Tito Kodiaga of The Cadmus Group, under the direction and in close collaboration with STEP Team Leader, took lead responsibility for designing and organizing the study tours and for choosing the participants from the Ministry of Environment, Wildlife Conservation and Tourism and the SSNEA.

Activities

Study tours were made to Uganda, Kenya, Ghana, and Namibia. Each study tour took four to five days. During the tours, the participants interviewed government officials and members of environmental NGOs and made field trips to protected areas, ports, industrial operations, sanitary landfills, and construction sites. Trip reports, prepared in part by the participants and completed by Mr. Kodiaga, were presented for each study tour. Table 4 gives the countries and dates, the names and institutions of the participants, and the principal interviews and field trips, for each of the study tours.

Table 4. Participants and their organizations and principal interviews and field trips made under STEP Study Tours

Participants	Organization	Principal Interviews & Field Trips
Kenya, March 6 – 10, 2006		
Victor Wurda Gerado Wol, Joseph Jamus Joyce Janda	DEA/MEWCT DWC/MEWCT SSNEA SSNEA	National Environmental Management Authority (NEMA); WWF, East Africa; United Nations Environment Programme; National Environmental Secretariat; Nairobi Provincial Environmental Committee; Bernard K'Omudho; George Wanukoya; National Environmental Trust Fund; USAID/Sudan Field Office
Ghana, June 18 – 23, 2006		
Alfred Akwoch Victor Wurda Lawrence Otika Gladys Dommy	MWCT DEA SSNEA SSNEA	Environmental Protection Agency (EPA); EPA Tema Office; Cocoa processing site in Tema; Red Sea Housing Company; Tema Por; Construction of Nsawam Road; Association of Environmental Assessment Practitioners; Cape Coast region; Wildlife Department.
Uganda, November 18 – 25, 2007		
Alfred Akwoch Victor Wurda Samuel Justin Luka Kiawanuka	MEWCT DEA/MEWCT SSNEA & MEWCT SSNEA	Wetlands Inspection Division/Ministry of Water, Lands and Environment; Tank Hill; Port Bell; Kinawataka Wetland; K Yambogo Area; Public hearing on malaria vector control; National Environment Management Authority (NEMA); Kum District Headquarters;
Namibia, July 13 – 23, 2007		
Victor Wurda Kapuki Tongun George Walla B. Martin Ring A. Jada Eunice P.	DEA/MEWCT DEA/MEWCT DT/MEWCT WC/MEWCT SSNEA	Ministry of Environmental Affairs & Tourism; Solid Waste Management Division, Winhoek City Council; Kupferberg Sanitary Landfill; Namibia Nature Foundation; WWF/Namibia; Field trip Tsiseb Conservancy & White Lady Lodge.

Key: MEWCT: Ministry of Environment, Wildlife Conservation and Tourism; SSNEA: Southern Sudan National Environment Association; DEA: Directorate of Environmental Affairs; DWC: Directorate of Wildlife Conservation; DT: Directorate of Tourism

Discussion

The “output” of the study tours will become an “outcome” to the extent that the lessons its participants learned applicable to Southern Sudan are incorporated into Southern Sudan’s environmental policy, laws, regulations and institutions. Table 5 indicates some of these lessons for policy, impact assessment, institutions, and laws and regulations that are expressed in the reports on the study tours.

All of the members of the environmental task force were provided copies of the trip reports from the study tours. Three of the participants in the study tours, Mr. Victor Wurda, Ms. Kapuki Tongun, and Mr. Martin Ring, have participated in one or more meetings about the environmental policy and law that have taken place in 2008 and 2009.

It is somewhat difficult to determine precisely the extent to which the lessons from the study tours have influenced the content of the draft environmental policy and law. Issues raised in the reviews of the draft environmental policy and law, however, often have been similar to those noted in Table 5, especially concern with public participation, decentralization, funding and inter-institutional coordination. The process of preparing Southern Sudan's environmental policy, law and regulation, and constructing its environmental institutions is far from finished. Many opportunities will still occur, therefore, for the application of the lessons learned during the study tours.

Table 5. Principal lessons from the study tours to Kenya, Ghana, Uganda, and Namibia for a Southern Sudan environmental policy, impact assessment process, institutions and law and regulations

Country	Principal Lessons			
	Policy	Impact Assessment	Institutions	Law & Regulations
Kenya	The importance of the consultative process, and the need for a pro-active national environmental organization	Ensure public participation in environmental assessment	Ensure inter-institutional coordination	Linkages between the laws and regulations and the need for an environmental tribunal
Ghana	Political commitment strengthens environmental institutions	Land use planning facilitates impact assessment Ensure public involvement in environmental assessment	Ensure adequate funding for environmental institutions Non-governmental environmental association improves environmental assessment Decentralization makes institutions more effective	Ensure adequate & specific legal provisions for environmental assessment
Uganda	Ensure public interest in environmental issues; Seek private sector involvement in protecting wetlands	Ensure public hearings during environmental assessments	Ensure adequate funding for environmental institutions	Protection of wetlands requires specific laws & regulations & data Charges for using wetlands use should reflect scale of potential adverse impacts
Namibia	Devolve wildlife management to local levels Give incentives to local people Keep policies simple Obtain political support	Ensure public participation in formulating environmental policies Make environmental assessments politically relevant	Strong NGOs and supportive media aid public environmental institutions	Provide for community based conservation Ensure public involvement in drafting environmental laws

2.6 PERFORMANCE MEASURE 6: ROAD REHABILITATION PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

Rationale

USAID environmental regulations require a positive determination for road rehabilitation activities financed with development assistance funds. A programmatic environmental assessment for road rehabilitation activities in Southern Sudan complies with the USAID regulations and guides the identification and mitigation of their potential adverse environmental impacts.

NARUS-JUBA ROAD – BEFORE AND AFTER



Narus-Juba / road before construction app. 85 km.
All Photos here by World Food Programme (WFP).



Narus-Juba / road under construction app. 84km.



Road south of Rumbek before rehabilitation.



Road south of Rumbek after rehabilitation.

Implementation

IRG implemented Performance Measure 6 itself, while collaborating with the MEWCT and the Ministry of Transport and Roads (MTR). The STEP Team Leader was the team leader for PEA. IRG contracted Karen Menzcer as the Roads EIA Specialist. Mr. Victor Wurda Lo Tombe, Director General of Environmental Affairs, represented the GoSS MEWCT. Mr. Jacob Marial Maker, Director of Roads, represented the MTR on the PEA Team.

Activities

During the last quarter of 2005, the STEP Team Leader prepared an annotated outline of a scoping statement for PEA and a list of issues associated with road rehabilitation in Southern Sudan including traffic safety, dust, borrow pits and effect on wetlands. The Africa Bureau Environment Officer approved the Scoping Statement prepared in consultation with MEWCT counterparts and based on the outline and issues papers.

Field work was undertaken during January and February 2006 and a draft of PEA was finished in April 2006 and reviewed by GoSS counterparts in both MEWCT and MTR. The draft PEA was then revised to make its recommendations clearer

and more feasible to implement, particularly regarding the roles and responsibilities of these GoSS institutions. Environmental Management Guidelines, an Environmental Design Checklist, and Standard Environmental Clauses also were added. The Africa Bureau Environmental Officer approved PEA in May 2007 and it was widely distributed within USAID/Sudan, to USAID contractors, and to GoSS institutions.

In January 2008, 58 road engineers, road construction supervisors, and road construction contractors attended a four-day course given by two experts from the United States Forest Service about the design of environmentally-sound low volume roads.

Tangible Impacts on Impact Assessment in Southern Sudan A STEP Success Story

The STEP Program played an important role over the course of the early years in raising the issues associated with road reconstruction in Southern Sudan, even before the final Road Rehabilitation PEA was produced. Two interim papers were developed and circulated among USAID and IRG personnel monitoring the implementation of the PEA. They were: an annotated outline of the Scoping Statement and a Preliminary List of Issues Associated with Road Rehabilitation in Southern Sudan. Both papers were commented on and endorsed by the reviewers. Traffic safety, dust, borrow pits and roads traversing wetland areas are among the significant issues identified, and were addressed by the PEA (see photos on previous page). Because of the prominence of road rehabilitation funded by USAID/Sudan, these discussions of the place of “environment” in post-conflict Southern Sudan gained a much higher profile than might otherwise have been the case. Everyone in the country, both Sudanese and development partners, is affected by poor road infrastructure and concerned with its improvement.



Dust from a laterite-based road surface.



Unreclaimed borrow pits become a water-borne disease vector breeding area.

Discussion

The preparation of the PEA for road rehabilitation responded to the need of USAID/Sudan to comply with USAID environmental regulations. A review of USAID/Sudan's compliance with environmental regulations during April 2009 found that USAID/Sudan's contractors for road rehabilitation activities have incorporated PEA's recommendations for standard environmental clauses into their contracts.

The road PEA states that "...a basic premise of this report is that good road engineering and sound environmental management can and must go hand-in-hand...the avoidance and mitigation recommendations which follow also start from the supposition that Best Engineering Practices have ...been carried out in a technically correct way...." To increase the probability that this premise would be true, STEP organized and financed the course about the design of environmentally sound low volume roads. A copy of the PEA was given to each participant in the course and is widely available within the Africa Bureau circles since it has been posted on the ENCAP website (www.encapafrika.org).

2.7 PERFORMANCE MEASURE 7: FOREST GOVERNANCE

Rationale

Strengthening the capabilities of DF to regulate forest exploitation and of KFTC to train forestry technicians were viewed as means for fostering sound, sustainable and legal use of Southern Sudan's vast forests thereby reducing the potential for the exploitation of forest resources to increase conflict and instability.

Implementation

IRG subcontracted Winrock International to implement Performance Measure 7. Mr. Sean White was hired as Winrock's Forestry Advisor. He worked in Southern Sudan from October 2006 to April 2009. His counterpart institutions were KFTC and the Directorate of Forestry of the Ministry of Agriculture and Forestry.

In implementing the forest governance activities, STEP was responsive to the needs and priorities of DF. The

Forestry Advisor and DF agreed upon a detailed project plan, formalized in a Memorandum of Understanding. The Forestry Advisor regularly briefed senior members of the forestry staff of the Ministry of Agriculture and Forestry, including the Under-Secretary for Forestry and the Director General for Forestry, and provided them with regular quarterly progress reports.

Activities

STEP's activities under Performance Measure 7 supported DF and KFTC with operating funds, training, technical assistance, equipment, and rehabilitated some of the infrastructure used by both counterpart organizations.



The Teak (*Tectona grandis*) plantations of Southern Sudan are being heavily cut to meet the wood needs for reconstruction. Unfortunately, this exploitation is rarely technically sound and sustainable or equitable to the local communities where the forests are found. STEP Forest Governance component specifically set out to address these issues and opportunities". Photo by Tom Catterson.

Between 2006 and 2008, STEP provided \$200,000 in quarterly increments as a continuation of USAID grant funding to KFTC to finance part of its operating expenses. Additionally, the STEP Forestry Advisor provided considerable technical assistance to KFTC in the areas of curriculum development, training in forest inventory, the preparation of a strategic plan, and budgeting and accounting. As previously mentioned, STEP also organized and financed the rehabilitation of KFTC’s water system at a cost of \$118,000.

Under PM 7, STEP also supported the Directorate of Forestry by organizing and financing reconnaissance surveys of the tree plantations in the states of Western Equatoria, Central Equatoria, Eastern Equatoria, and Bahr el-Ghazal. The Forestry Advisor trained four members of DF in forest inventory methodologies and design and implemented a study of the supply and demand for sawn wood in Southern Sudan. He also helped DF to establish permanent collaboration with the United States Forest Service. In all, the Forestry Advisor provided technical assistance to the Directorate of Forestry on many subjects and almost on an “on-demand” basis. Table 6 indicates the type of training and technical assistance and the type and value of equipment and infrastructure that STEP provided under PM 7 to DF and KFTC.

Table 6. Training, Technical assistance and equipment provided by STEP to the Directorate of Forestry and the Kagelu Forestry Training Center under Performance Measure 7

Type of Assistance	Participating Institutions	Person-Weeks or Value (US\$)
Training		69
Forest Inventory	Forestry Directorate	18
Computer	Forestry Directorate	2
Sustainable forest management	Forestry Directorate	10
Forest governance & revenue	Forestry Directorate	10
Commercial forestry seminar	Forestry Directorate	1
English	Forestry Directorate	12
Accounting	KFTC	2
Database management	KFTC	1
Budget management and control	KFTC	1
Financial management	KFTC	1
Accounting	KFTC	2
GIS	KFTC	3
Forest concessions	Forestry Directorate	6
Technical Assistance		68
Forest inventory	Forestry Directorate	30
Training needs assessment	KFTC	5
Forestry technician curriculum	KFTC	3
Institutional strategic plan	KFTC	12
Sawn wood markets	Forestry Directorate	12
Forest management plan (Kagelu)	KFTC	3
Accounting	KFTTC	3

Equipment & Infrastructure		169,000
Inventory equipment (2 sets)	Forestry Directorate	5,000
Offices	Forestry Directorate	14,000
Water system rehabilitation(1)	KFTC	117,473
Vehicles	Forestry Directorate	15,000

Discussion

The budget for IRG’s subcontract with Winrock International for support of the forestry activities under Performance Measure 7 was just over US\$ 1 million. In addition, IRG disbursed US \$200,000 directly to KFTC to cover part of its operating expenses and spent an additional US\$ 117,473 on the rehabilitation of its water system. The STEP Team Leader also devoted a substantial amount of his time to the implementation of activities under PM 7.

The expenditure of these resources and funds produced substantial achievements. The forestry field work, technical assistance, and training (treated as achievements separate from the training under PM 3) clarified the extent, location, and conditions of the tree plantations in the Southern Sudan and raised the technical capabilities of the staff of GoSS and selected State Directorates of Forestry. They were thus better able to plan and implement the orderly allocation of the rights and the assignment of the responsibilities to exploit, replant, manage, and protect Southern Sudan’s existing and future tree plantations. The results of the study of sawn wood supply and demand provided a sounder basis for formulating policies that will lead to supply of sawn wood to meet demand without causing adverse impacts on Southern Sudan’s natural and planted forests.

STEP’s support to KFTC assisted it to make the transition from dependence on USAID funding to regular financing from the budget of the Ministry of Agriculture and Forestry (MAF). KFTC graduated two classes of about 20 young foresters who had received two-year certificate training in forestry and were immediately absorbed into the ranks of the Directorate of Forestry; more are being trained. STEP’s technical assistance also improved KFTC’s capacity for administration and financial control. By rehabilitating KFTC’s water system, STEP provided more hygienic living conditions that were more suitable for studying and teaching.

2.8 PERFORMANCE MEASURE 8: BOMA WILDLIFE TRAINING CENTER

Rationale

By 2006, over 5,000 soldiers had been transferred to the Directorate of Wildlife Conservation (DWC) and about 9,000 more by 2007, although the DWC did not have enough trained wildlife officers to supervise them. At the same time, the Boma Wildlife Training Center (BWTC), whose purpose is to train wildlife officers, lacked operating funds when USAID/Sudan’s Southern Sudan Agricultural Revitalization Project was closed down. To provide the funds that would enable the BWTC to continue to operate during 2007 to 2009 and make the transition to GoSS financial support, USAID/Sudan added PM 8 to STEP.



A proud moment – The first class of forestry certificate holders on graduation day at the Kagelu Forestry Training Center. STEP support to the Center played an important role in facilitating the operations there and enabling this class to complete two years of training. Other classes are being trained and notably include a fair ratio of women entering the profession.

Implementation

IRG issued a Purchase Order (PO) to WCS to provide technical supervision of the BWTC and issued another PO directly to the BWTC to provide it with \$100,000 for its operating costs from September 2007 to August 2008. IRG made one disbursement under each PO before STEP's budget was cut and further activities under PM 8 had to be curtailed.

Activities

Since the purpose of Performance Measure 8 was simply to finance BWTC's operating costs, it is difficult to attribute any particular activity at BWTC to STEP financing. Advisory and technical assistance services were provided by the WCS as part of its role in supporting the continuing development and operation of the BWTC, which it was also using as its operational headquarters for Southern Sudan. However, during the period when STEP was financing its operating costs, BWTC's only activity was one course for 39 wildlife officers that lasted two months.

During this period, BWTC's water system stopped working. BWTC requested STEP to assist in repairing the water system. After consulting with USAID/Sudan, the STEP Team Leader made arrangements for Fretshok, Inc. to make a seismic survey of the BWTC campus to determine where a new bore hole could best be drilled and to prepare a plan for repairing the complete water distribution system. In February 2008, the STEP Team Leader spent several days at the BWTC with Fretshok personnel preparing a plan to repair the water system. Before STEP took any further action, a local NGO offered to drill a new bore hole for BWTC. No further action was taken with regard to the BWTC water system.

Discussion

STEP accomplished the purpose of PM 8 by channeling financial support to the BWTC during its transition to GoSS financing and providing for some technical assistance from the Wildlife Conservation Society.

2.9 PERFORMANCE MEASURE 9: ENVIRONMENTAL STANDARDS FOR THE PETROLEUM SECTOR IN SOUTHERN SUDAN

Rationale

Although Southern Sudan has excellent prospects for oil production, there are some concerns that finding and producing oil may have already caused significant adverse environmental impacts, particularly on the grazing areas of the Sudd wetlands. This could be the cause of conflict. Performance Measure 9 was intended to assist GoSS to formulate and apply environmental standards for petroleum exploration and production as a means to avoid or reduce such conflict.

Implementation

IRG implemented this PM directly with the first STEP Team Leader, Mr. Thomas Catterson (who also became the IRG Home Office Program Manager), taking prime responsibility for preparing the guidelines for oil exploration and production.

Activities

In January 2007, the STEP Team Leader visited three sites in Jonglei State where the White Nile Petroleum Corporation was drilling exploratory oil wells. In February 2007, he and the DEA Director General consulted with government officials, environmental experts, and the US Embassy in Khartoum about the preparation of a PEA related to petroleum exploration and production. In June 2007, at the request of the US Consul General in Juba, Mr. Catterson served as a resource person and presenter at a two-day workshop and training seminar organized for the highest level of GoSS authorities involved in petroleum sector policy and management. His presentation, drawing on the work underway to prepare for the PEA, centered on the adverse environmental impacts of oil exploration and production.

In September 2007, he completed a Scoping Statement for a PEA of Oil Exploration and Production in Southern Sudan. This Scoping Statement was the first time the real potentials for adverse impacts were documented in an area where innuendo and rumors were rife.

However, at that point, USAID asked the STEP team to put its activities related to the preparation of PEA on hold. During the rest of 2007 and part of 2008, STEP took no further action to implement PM 9.

A contract modification in mid-2008 changed PM 9 from a PEA to the preparation of environmental guidelines for oil exploration and production. In October 2008, the STEP Home Office Manager, Mr. Thomas Catterson, made a trip to Southern Sudan with the intention of making observations of exploration and production practices in existing oil fields. At that time, despite significant planning



A reconnaissance field trip was undertaken in January 2007 to oil exploration sites in Jonglei State. The team included staff of the White Nile Petroleum Corporation, ESF Consultants of Kenya (doing the EIA for White Nile), the Directorate of Environmental Affairs and the STEP Team.

efforts, the DEA was unable to arrange a trip to the oil fields. Mr. Catterson used his time in Juba to prepare a work plan for PM 9 and rescheduled his visit to the oil fields for January 2009.

To avoid a repetition of the earlier difficulties in accessing the oil areas, always an issue in Sudan, the Director General for Environmental Affairs prepared a memorandum to the Minister of Housing, Physical Planning, and Tourism requesting him to formally solicit the Minister of Energy and Mines for logistical assistance in arranging Mr. Catterson's trip. The Minister sent a formal letter to the Minister of Energy and Mines requesting such assistance. The STEP Team Leader and the Director General carried this letter to the Minister of Energy and Mines. After reading the letter, the Minister informed them that he was unable to provide the required logistical assistance for Mr. Catterson's trip.

The Minister noted that he was waiting for reports to be prepared on the results of two other trips to the oil fields whose purpose had been to investigate the environmental aspects of oil exploration and production. He recommended that any further trips for that purpose should await the results of those two reports. Without the logistical support of the MEM, Mr. Catterson's trip to the oil fields would not have produced the information that was required to prepare the environmental guidelines that were to be the product of PM 9. These continuing delays and the cost issues associated with the guidelines prompted the STEP Team Leader to recommend to USAID and IRG that this performance measure be eliminated from STEP.

Discussion

Oil exploration and production is arguably the single largest threat to the environment of Southern Sudan. Their adverse environmental effects could also cause increased conflict between different groups of Sudanese. The preparation of a PEA or environmental guidelines under PM 9 would have established procedures to reduce the threats to the environment and stability from oil exploration and production.

Unfortunately, for the reasons stated above, it was ultimately impossible to go forward with this potentially important work. It is hoped that the availability of the Scoping Statement, which was explained to many Southern Sudanese and widely distributed, will help to shed light on this important topic and that these efforts will have some positive results.



Scavenging trash from Juba dumped beside the Juba to Yei road. Random dumping along the road created this environmental health problem as local people swarmed uncontrolled into the garbage heaps; typically they were women and children.

2.10 PERFORMANCE MEASURE 10: CRISIS MODIFIER

In countries that have had volatile situations where impacts on programming are hard to predict, some USAID Missions have chosen to build in a “crisis modifier” component to their program. The nature, extent, and timing of any use of the “modifier” are at the absolute discretion of the USAID Mission. Upon receiving a written request from the USAID COTR, the Contractor responds to unanticipated events and needs related to the environment. USAID/Sudan never requested IRG to respond to an

environmental situation under Performance Measure 10, so no activities were ever taken under this performance measure.

2.11 PERFORMANCE MEASURE 11: SOLID WASTE

Rationale

With the end of the civil war, refugees and Internally Displaced People (IDP) are returning to Southern Sudan and the population and economy of Juba are growing rapidly. Furthermore, as Juba was a garrison town isolated during the civil conflict, it was impossible to remove solid waste to a dump site outside of the town. One consequence has been a huge increase in the volume of unmanaged solid waste in the city. Lacking adequate arrangements to dispose of this solid waste properly, consequently, much of it is accumulating on the streets, empty lots and water courses, creating a risk to public health. Performance Measure 11 was intended to develop the capacity of Southern Sudan national and local institutions to reduce public health risks in Juba from solid waste by establishing a proper system for disposal of solid waste.

Implementation

IRG took direct responsibility for the implementation of PM 11 but worked closely with a project called Volunteers for Economic Growth Alliance (VEGA), which USAID/Sudan also was financing.

Activities

During 2006 and early 2007, the STEP Team Leader took a number of actions to stimulate solutions for Juba's problem of solid waste. He collaborated with USAID/Sudan to plan and support a team from USAID/Washington that assessed Juba's water and sanitation situation. He also organized a number of meetings at which representatives from international and national institutions discussed possible solutions to Juba's problem of solid waste disposal. These meetings raised awareness of the extent and character of Juba's solid waste problem and led to the excavation of a dump site and the construction of an anaerobic treatment pond. They also raised the awareness of USAID/Sudan about Juba's solid waste problem.



STEP personnel and SAFI staff with the new plastic bottle crusher built and imported from Kenya.

In September 2007 USAID/Sudan modified its contract with IRG to add Performance Measure 11. PM 11 was to become involved in the following activities: (1) establish financial and technical capacity to operate a waste management facility, (2) expansion of a UNMIS solid waste dump site, (3) enforcement of regulations governing disposal of solid waste, (4) purchase of equipment, (5) clean-up of existing dump sites, (6) public education about solid waste, (7) preparation of a funding proposal for a Juba solid waste management system, (8) establishing private sector participation in solid waste collection and separation, (9) reduction of the volume of solid waste, (10) developing a proposal for expanding the

management system, including financing of additional sites, and (11) assist the GoSS to develop a comprehensive plan for the disposal of solid waste.

The STEP Team Leader decided to initiate activities under PM 11 with activities (8) and (9) by implementing a waste plastic bottle recycling project in collaboration with VEGA and a private garbage collection company. In early 2008, USAID/Sudan decided to not obligate additional funds to STEP, so it became unfeasible to undertake any other of the activities under PM 11. Since the pilot plastic recycling project had been started, it was completed, although reduced in its scope. The STEP team leader prepared a final report on the pilot plastic recycling project.

Discussion

The meetings organized by the STEP Team Leader in 2006 and 2007 raised awareness of the health risks from solid waste in Juba. They thereby increased the attention that donor agencies, the GoSS, the Central Equatoria State, Juba County, and the Juba City Council gave to the problem of solid waste, increasing the possibility for funding a comprehensive solution.

The pilot plastic recycling project produced more knowledge about how to achieve the recycling of plastic water bottles, a major component of the waste stream in Juba. It demonstrated that plastic recycling could be sustained as a service but not as an enterprise that paid its expenses and made a reasonable profit from plastic recycling itself. Some form of subsidy would therefore be required in order for plastic bottles to be recycled.

2.12 PERFORMANCE MEASURE 12: TRANS-BOUNDARY PARKS

Rationale

Conflicts in Uganda and Southern Sudan have long made the boundary between them insecure. Trans-boundary collaboration for the conservation of biodiversity within protected areas would contribute to economic growth and reduced conflict.

Implementation

IRG took direct responsibility for implementing PM 12, while coordinating closely with the Wildlife Conservation Society, which had also received USAID funds for the same area of trans-boundary “peace parks.” IRG arranged with the African College of Wildlife Management in Mweka, Tanzania for the training in wildlife management of four Southern Sudanese wildlife officers.

Activities

In November 2007, the STEP Team Leader, the country representative of the Wildlife Conservation Society, and the Under-Secretary of the MEWCT jointly defined their respective roles in relation to the trans-boundary “peace parks.” STEP’s responsibilities were to organize and finance (1) trans-boundary consultative meetings, (2) training for park guards, (3) purchase of equipment and materials, (4) the development of ecotourism in the Nimule National Park, and (5) management activities in the Nimule National Park.

The STEP Team Leader initiated STEP’s activities in November 2007 through a visit to Nimule, accompanied by a tourism specialist from the Directorate of Tourism and a business development specialist from the VEGA project. They were unable to visit the park itself, but they discussed the potential for ecotourism in Nimule with the members of the Nimule Chamber of Commerce, concluding that the limited possibilities were still constrained by a lack of tourism infrastructure both within the park and for accommodation outside it. As this was clearly well beyond the intention and mandate accorded STEP by USAID no further action related to ecotourism development in Nimule was undertaken.

STEP proceeded with the other activities which it had agreed to undertake. In early 2008, STEP arranged for four employees of the Directorate of Wildlife Conservation to attend the certificate program at the African College of Wildlife Management in Mweka, Tanzania. After attending a specially organized six-week refresher training course on basic skills (English, math, science) the four trainees started the course in July 2008. Also as part of earlier commitments made by USAID under the TBPP, during early 2008, STEP bought and imported two Toyota Hardtop Land Cruisers for use at the Nimule National Park and the area of Kidepo Game Reserve. In early April 2008, STEP financed a coordination meeting between the staff of the Nimule National Park and the staff of Ugandan protected areas across the border. At the end of April 2008, STEP financed the participation of four staff members of the MWCT at a trans-boundary consultative meeting in Kampala.

In May 2008, USAID/Sudan notified IRG that it would not add the \$2.5 million that had been specified in STEP Contract Modification 4, part of which were intended to finance PM 12. Consequently, no additional activities were possible under Performance Measure 12.

Discussion

Although it was only active for a short time, PM 12 produced several important accomplishments. Four Sudanese attended the wildlife management technician program at the African College of Wildlife Management in Mweka, Tanzania. The two vehicles STEP financed for the Nimule and Kidepo areas will enhance the capabilities of the Southern Sudanese wildlife conservation authorities based in these protected areas along the border to patrol and manage these areas. The two trans-boundary meetings increased institutional capacity for wildlife conservation and resolution of conflicts. The Wildlife Conservation Society, with USAID funding, is continuing some of the activities which STEP had been planning to execute under PM 12.

3. CONCLUSIONS

This section draws some conclusions about the Sudan Transitional Environment Program. It first compares STEP’s target achievements with its actual achievements, noting where and why it fell short and or surpassed the targets. Then it compares STEP’s activities to USAID/Sudan’s priority activities – those activities USAID/Sudan’s Strategic Plan states will contribute to its strategic objectives of “avert and resolve conflict” and “promote stability, recovery and democratic reform.” Third, the section analyzes how STEP’s design made possible STEP’s high degree of effectiveness and efficiency. The section finishes with a short discussion of what remains to be done to accomplish STEP’s target achievements.

3.1 ACHIEVEMENTS³

Table 7 compares STEP’s target with its actual achievements. The first column gives the number of STEP’s performance measure. The second column states the performance measure’s target achievements, as stated in the STEP task order. The third column indicates the nature of the achievements for each of these performance measures.

Table 7. Summary of the STEP Performance Measures and Achievements

PM	Target Achievements	Actual Achievements
1	<ul style="list-style-type: none"> • Institutional framework for environmental policy & impact monitoring • Environmental policy statement published • Impact assessment guidelines enacted & published 	<ul style="list-style-type: none"> ✓ Directorate of Environmental Affairs strengthened by technical training ✓ Environmental policy & law under development through a participatory, transparent process ✓ 112 people in Directorate of Forestry and Ministry of Environment, Wildlife Conservation & Tourism trained in public administration
2	2003 Environmental Threats and Opportunities Assessment updated	✓ 2003 Environmental Threats and Opportunities Assessment updated
3	Environmental Impact Assessment & other training (500 people trained with a 50:50 women-to-men ratio)	<ul style="list-style-type: none"> ✓ 517 people trained ✓ 681 person-weeks of training ✓ 2:1 ratio men: women
4	Environmental NGO established & operational	✓ Southern Sudan National Environment Association legally registered
5	6 study tours (2 tours cancelled)	<ul style="list-style-type: none"> ✓ 4 study tours completed ✓ Observations incorporated into environmental policy & law
6	Roads Programmatic Environmental Assessment (PEA) completed	<ul style="list-style-type: none"> ✓ Roads PEA completed ✓ Environmental clauses in USAID road contracts
7	Enactment & operationalization of timber resource policies, laws & regulations	<ul style="list-style-type: none"> ✓ 69 person-weeks training ✓ Forest concession policies formulated ✓ Teak plantations mapped & assessed ✓ Report on sawn wood markets

³ The term “achievements” can refer to “input,” “outputs,” “outcomes” or “results” An example of an “input” would be a training course An example of an “output” would be a trained person An “outcome” would be the product that trained person produced as a result of the training, such as a forest management plan A “result” would be what happened as a result of implementing the forest management plan, such as an increased supply of sawn wood combined with a higher population of an endangered species of animal

PM	Target Achievements	Actual Achievements
	Effective operation of Kagelu Forestry Training Center	<ul style="list-style-type: none"> ✓ GoSS assumes KFTC financing ✓ 36 forestry technicians graduated from KFTC ✓ Curriculum review prepared ✓ Strategic Plan prepared ✓ Water system rehabilitated
8	Ensure high quality of training at Boma Wildlife Training Center Effective operation of BWTC	<ul style="list-style-type: none"> ✓ GoSS assumes financing of BWTC ✓ 39 wildlife officers trained
9	Petroleum environmental standards enacted and operational (cancelled)	<ul style="list-style-type: none"> ✓ Scoping Statement for PEA completed ✓ High level GoSS personnel trained on typical adverse environmental impacts of the petroleum sector
10	None (cancelled)	<ul style="list-style-type: none"> ✓ No major issues arose that required use of this mechanism
11	Improved management of solid waste in Juba (cancelled)	<ul style="list-style-type: none"> ✓ Plastic recycling pilot project completed ✓ Awareness raised about solid waste issues in Juba result in the construction of a dump site outside town
12	Reduced conflict on Southern Sudan-Uganda border (cancelled).	<ul style="list-style-type: none"> ✓ 2 trans-boundary meetings ✓ 4 wildlife management technicians graduated ✓ 2 vehicles for Directorate of Wildlife Conservation.

3.2 CONTRIBUTION TO PEACE AND STABILITY

According to its *Strategy Statement 2006 – 08* USAID/Sudan will support “...the implementation of and reducing threats to the CPA”. The strategy says that USAID/Sudan’s approach to programming its resources

“...diverges significantly from traditional sector-based programming by focusing on averting and resolving conflict and promoting stability, recovery and democratic reform Every activity...will look to build institutional and human capacity, increase access to accurate and reliable information and develop systems for participatory governance, accountability, transparency and infrastructure development.

The strategy says that by implementing certain types of activities USAID/Sudan will contribute to the implementation of the CPA. How well did STEP’s activities match USAID/Sudan’s priority activities?

PMs 7, 9, and 12 were PMs that were most directly intended to **avert and resolve conflict**. From the results of reconnaissance level inventories, PM 7 raised the level of information available about Southern Sudan’s teak plantations. It thus provided the data that the Directorate of Forestry requires in order to allocate the rights to the exploitation of teak through an orderly, rather than a conflictive, process. PM 7 also contributed to **stability and economic recovery** by locating and measuring Southern Sudan’s teak plantations and formulating rules for their exploitation, thus converting a potential into an actual resource. By financing trans-boundary meetings between the Southern Sudanese and Ugandan institutions responsible for the protection of wildlife, PM 12 contributed to averting conflicts over the movements of wildlife across the frontier. Had it been completed, PM 9 could well have averted some of the conflicts that arise over the negative environmental impacts of oil exploration and production.

Performance Measures 1, 3, 6, and 7 contributed to **developing human capacity** through training and technical assistance to the staff of the Directorate of Forestry and the Ministry of Environment, Wildlife Conservation and Tourism. PM 7 contributed to increased **accountability and transparency** by assisting the Directorate of Forestry to locate and inventory Southern Sudan’s teak resource.

STEP made a direct contribution to the **development of infrastructure** by rehabilitating the water system at the Kagelu Forestry Training Center and two offices in the Central Equatorial State Forestry Department. It made an indirect contribution to the development of infrastructure by providing guidance for road rehabilitation as part of the PEA, and through the development of a policy within which environmental impact assessment could occur.

In sum, except for **fostering democratic reform**, STEP was involved in all the types of priority activities that USAID/Sudan had chosen because their implementation would contribute to its strategic objective of “stability and peace”.

3.3 DESIGN AND IMPLEMENTATION

STEP faced the somewhat unusual issues and opportunities that accompany activities implemented in a country such as Southern Sudan with difficult communications, deteriorated infrastructure, and barely functioning public institutions. However, STEP’s string of achievements, produced in a short time period and with a relatively small budget, indicates that it was implemented quite effectively and efficiently. Its successful implementation is attributable not to chance but to six specific characteristics of its design that made possible its effective and efficient implementation.

First, STEP performance measures were relatively simple and straightforward. PMs 1 and 4 established a public and a private environmental institution respectively. PMs 3 and 5 provided training. PMs 2 and 6 prepared reports. In 2005, a war of 20 years had just ended in Southern Sudan. The Government of Southern Sudan was just coming into being. Infrastructure hardly existed. It was not a time for complicated development programming.

Second and similarly, STEP’s performance measures were not excessively interlinked. STEP’s design kept its performance measures independent. Thus, accomplishing one performance measure did not necessarily require accomplishing another. PM 1, for example, which required a great deal of time, did not hold back the implementation of PM 2 or PM 6, which could be implemented quickly. Likewise, the training under PM 3 proceeded according to schedule, unimpeded by PM 4’s limited progress. The independence of the performance measures, moreover, made STEP flexible and responsive under new circumstances. In 2006, when USAID/Sudan changed its strategic objective, and in 2007, when it saw an urgent need for resolving the solid waste crisis in Juba and to support trans-boundary conservation with Uganda, STEP responded quickly and effectively.

Third, STEP was designed to be managed and implemented in Southern Sudan. Its Team Leaders were there full time; they did not commute from Nairobi, even in 2005 when the conditions in Southern Sudan were most difficult. Likewise, STEP’s Forestry Advisor spent most of his time in the field. The Training Coordinator spent most of her time in Southern Sudan too, although carrying out some tasks better done from Nairobi, such as communication. The day-to-day presence of the Team Leaders in Southern Sudan permitted them to interact frequently with the staff of the Directorate of Environmental Affairs and the Directorate of Forestry, a principal source of STEP’s effectiveness.

Fourth, STEP was designed to support and strengthen, not replicate or replace, Sudanese institutions. STEP did not become an institution itself. Its permanent staff was the minimum required and it had no permanent office. Consequently, administrative problems occupied little of the Team Leader’s time; they could devote their time to supporting the ministries. No possibility existed of STEP drawing off the ministries’ best and brightest with more prestigious and higher paying contracts, thus risking weakening rather than strengthening GoSS institutions.

Fifth, STEP’s budget was organized by type of expense not by performance measure. This type of budget gave a good deal of leeway for responding rapidly to possibilities for STEP to finance effective

actions. The STEP budget, for example, did not have a specific line item for the rehabilitation of the water system at the Kagelu Forestry Training Center. Yet support to the KFTC and BWTC were clearly USAID/Sudan priorities and were dealt with as such. Because its budget was not rigidly tied to specific performance measures, STEP was able to respond quickly and effectively to these USAID/Sudan priorities.

Sixth, STEP's team leaders were multi-functional – they could handle many types of tasks. And the Team Leaders lasted. STEP was fortunate in having only two team leaders during its four years and that they both were able to handle effectively a wide range of technical and administrative matters. STEP's activities ranged from environmental policy to the protection of wildlife to the silviculture of teak to garbage collection. STEP did not have funds to contract specialists for each of these topics. But by design, STEP's Team Leaders were professionally able to handle all of STEP's activities. Continuity in STEP's leadership certainly contributed to its effectiveness.

In conclusion, STEP's achievements were not accidental. They are the result of a design that enabled effective and efficient work in the circumstances of Southern Sudan during the time STEP was being implemented.

3.4 UNFINISHED PROCESSES

STEP met most of its target achievements and surpassed a number of them. Many of its activities, however, aimed more to create processes than reach fixed end points. Inevitably, therefore, STEP is leaving some important processes uncompleted. To let those processes stop would seriously diminish the results realized as well as progress towards the attainment of USAID/Sudan's strategic objectives and the sound management of Southern Sudan's environment. It is particularly important that three such processes continue.

First, protecting Southern Sudan's environment and averting conflict over the exploitation of its natural resources requires that the process continue for completing, approving, and implementing an environmental policy, law, regulation, and action plan for Southern Sudan. During 2009, the process of preparing the first two of these documents, the policy and law, gathered force, especially when the process of preparing an environmental law was made concurrent rather than subsequent to the preparation of an environmental policy and when representatives from institutions external to the Directorate of Environmental Affairs, such as the University of Juba and the Ministry of Water Resources, began to participate regularly.

The consultative group has developed an ability to work together productively. People who at first rarely participated now are beginning to express their ideas. More institutions are sending representatives. The result is an environmental policy that is being produced by Southern Sudanese and that reflects the special circumstances of Southern Sudan. Therefore, Southern Sudan has an excellent possibility of producing an environmental policy, law, regulations, and action plan that Southern Sudanese will understand and support. A high-quality process that maintains transparency and participation inevitably takes time. The Directorate of Environmental Affairs should not permit the quality of the process to be lowered in the interests of expediency or to satisfy bureaucratic deadlines. However, it also should not risk letting the process die.

The most promising possibility for maintaining the momentum of this process may be to link it to the intention of the World Bank to institute its "environmental and social safeguards" review process. The World Bank has already prepared a proposal to the Multi-Donor Trust Fund (MDTF) that requests \$1 million to support what the proposal refers to as the Ministry of Environment.

Second, STEP made an important contribution to the process of establishing an effective system for encouraging private sector investment in Southern Sudan's planted and natural forests. Again, much remains to be done. Similarly, the Directorate of Forestry is a more capable institution today and consequently has been able to attract more external support, including from the Noraid and the European Union.

USAID/Sudan is financing some forestry activities focusing on non-wood forest production in the Three Areas as well. Although there is little forest area of commercial timber in the Three Areas, there may be areas where charcoal is being produced. The production of charcoal can cause permanent destruction of the forest cover as well as stimulate conflict. Therefore, USAID/Sudan may be able to continue to finance the process of forest governance by supporting activities to regulate and improve charcoal production. Another way that USAID/Sudan could continue the process of improving forest governance would be to maintain contact with the International Programs Office of the US Forest Service and encourage the Under-Secretary of Forestry to maintain that contact as well. The US Forest Service may be able to offer technical advice or training that would be useful to the Directorate of Forestry.

STEP provided the Kagelu Forestry Training Center with considerable support. The KFTC, however, still has a distance to travel before it becomes a solid institution – financially, administratively, and academically. USAID/Sudan can encourage that process even though it will not continue to finance the KFTC directly in any way. The KFTC is capable of providing specialized training in some technical areas, such as beekeeping and forestry. Projects financed by USAID/Sudan could be encouraged to contract for such training there rather than elsewhere. The KFTC also needs to continue the process of improving its infrastructure. To ensure the quality and quantity of its water supply, for example, the KFTC needs to reconstruct a small dam on the Kagelu Creek. It also requires a dormitory and a kitchen. These are small but important infrastructure projects that perhaps USAID/Sudan could finance through one of its infrastructure projects.

Third, the process of improving how solid waste is handled in Juba will continue. This is an area in which USAID/Sudan has a direct interest given its own environmental regulations and its own non-trivial contribution to the problem. USAID/Sudan and much of the donor/cooperator community in Juba need to ensure that their own solid waste is properly handled. If USAID/Sudan decides to finance activities to improve the infrastructure of Juba, it could include some part of a system for the collection and disposal of solid waste.

DOCUMENTATION

Performance Measure I

1. Information Memoranda for Senior Ministry Management:
 - Suggestions for operationalizing a working relationship between the Ministry of Environment, Wildlife Conservation and Tourism and the IRG/STEP team
 - Challenges and opportunities for the Directorate
 - Update on the status of the anaerobic treatment ponds being built along the Yei Road with USAID funding
 - Activities related to dealing with the solid waste problem in Juba
 - Update related to the solid waste problem in Juba
 - Environmental Assessment being carried out by White Nile Petroleum
 - Discussion with UNOPS regarding the MDTF infrastructure proposal for the National Parks
 - Transmittal of road rehabilitation programmatic environmental assessment report
 - Comments on draft National Environment Action Plan
 - Transmittal of multi-donor trust fund project processing guidelines
 - Upcoming scoping exercise for the programmatic environmental assessment of oil and the environment
 - Return to post-discussion and work agenda
 - Lamentable solid waste disposal situation on Yei Road
 - Outcome of the natural resources budget sector working group meetings
 - Reports of the Kampala meetings on trans-boundary conservation landscapes for peace
 - Southern Sudan: Understanding The Process And Identifying The Likely Roles And Responsibilities Of The GOSS Ministry Of Environment, Wildlife Conservation And Tourism
 - Discussion Paper On The Roles And Responsibilities Of The Ministry Of Environment, Wildlife Conservation And Tourism, and Environmental Impact Monitoring Procedures
 - Environmental impact monitoring procedures for Southern Sudan: understanding the process and identify likely roles and responsibilities of the GoSS Ministry of Environment, Wildlife Conservation and Tourism
2. Report of the Wildlife Conservation Policy Advisor
3. Draft Environmental Policy for Southern Sudan
4. Draft Environmental Law for Southern Sudan

5. Record of the Minutes of the Meetings on the Draft Environmental Policy for Southern Sudan
6. Final report on training needs assessment and proposed Phase II training program

Performance Measure 2

1. 2003 Environment Threats and Opportunities Assessment for Sudan
2. 2007 Update to Environment Threats and Opportunities Assessment for Sudan
3. UNEP Sudan Post-Conflict Environmental Assessment

Performance Measure 3

1. Report on Study Tour to Ugandan
2. Report on Study Tour to Kenya
3. Report on Study Tour to Ghana
4. Report on Study Tour to Namibia

Performance Measure 4

1. On the Directorate of Environmental Affairs in the Ministry of Environment, Wildlife Conservation and Tourism; and Other Line Ministries of the Government of Southern Sudan
2. Training reports for EIA courses in Boma, Rumbek, Juba, Kauda, Bor, Juba, and Maladal
3. Final report –rural roads training course Southern Sudan, January 28-31, 2008
4. Participant reports on in-service training at the Kenya National Environmental Management Authority (NEMA)
5. Final report on training needs assessment and proposed phase II training program in pbulci administration

Performance Measure 5

1. Establishment of the South Sudan National Environmental Association – SSNEA, Report of the First Southern Sudan ENCAP “Alumni” Meeting held in Boma Wildlife Training Center, 29th January – 2nd February 2006
2. Report on Southern Sudan National Environmental Association meeting held in Rumbek, June 27-29, 2006
3. SSNEA Constitution and Code of Ethics (Draft)
4. Enhancing South Sudan National Environmental Association’s profile through participating in World Environment Day
5. Speech to mark the World Environmental Day, June 5, 2006

Performance Measure 6

1. Scoping Statement for the Programmatic Environmental Assessment of the Road Rehabilitation Activities in Southern Sudan
2. Programmatic Environmental Assessment (PEA) of Road Rehabilitation Activities in Southern Sudan

3. Course Program. Short Course, Low Volume Roads Best Practices, Juba, Sudan, January 28-31

Performance Measure 7

1. Memorandum of Understanding on implementation of STEP Performance Measure 7 Improved Forest Governance for the period October 2006 to September 2008
2. Memorandum of Understanding on management of USAID funding for support to the Kagelu Forestry Training Centre for the period October 2006 to September 2008.
3. Quarterly reports (8) on STEP Performance Measure No. 7 (for circulation to project partners)
4. Report on the inventory of Kagelu teak plantation Compartments 6, 7 and 9. 2008.
5. Reference notes for the forest inventory training course for GOSS/MAF/DF staff, KFTC 26 Nov – 14 Dec 2007
6. Report on Forest Inventory course conducted at Kagelu forestry Training Centre, Yei River County, Southern Sudan. 25 Nov – 14 Dec 2007
7. Report on the consultative meeting between STEP Project and the Ministry of Agriculture and Forestry, Directorate of Forestry, held on 7 June 2007
8. Trip report on visit to Wau 1-3 August 2007
9. Trip report on visit to Yambio 26-29 June 2007
10. Reconnaissance inventory of Kajiko Forest Reserve carried out on 31/10/07- 5/11/07.
11. Reconnaissance inventory of Loka Forest Reserve carried out on 24/90/07- 3/10/07.
12. Report on the reconnaissance inventory of Momory Forest Reserve carried out on 24 November 2007.
13. Assessment of the training needs of the forestry sector in Southern Sudan
14. A market survey of forest products in Yei and surrounding areas in Central Equatoria, Southern Sudan
15. Reviewing forest concession procedures and forest revenue systems in Southern Sudan. A report on a training and concession review workshop Juba: 21-25 January, 2008
16. Training Notes on Forest Concessions and Forest Revenue Systems. Annex to the report on the forest concessions and revenue systems review and training workshop Juba: 21-25 January, 2008
17. Draft Management Plan for Kagelu Forest Reserve 2008-2112
18. Curriculum for the Forestry Certificate Course (Revised 2008)
19. Notes on Strategic Planning (for use by KFTC Board and staff in developing their strategic plan)
20. Training report and recommendations for sustainable forest management and Chain of Custody in Southern Sudan. Juba and Wau 11-30 Sept 2008.
21. Field visit report on reconnaissance assessment of plantations in Eastern Equatoria State, 26-29 Nov.08
22. KFTC Strategic Plan 2009-2013

23. Institutional options for the future management and administration of Kagelu Forestry Training Centre. A discussion paper produced as an input to revision of the KFTC strategic plan, November 2008.
24. Commercial timber supply and demand in Southern Sudan – policy options and recommendations.
25. Final Report on STEP Performance Measure No. 7- Improved forest governance in Southern Sudan

Performance Measure 8

1. Draft Business Plan, Wildlife Training Center, Boma
2. IRG Purchase Order 2010-FP1-BWTC, September 27, 2007
3. IRG Purchase Order 3010-WCS, May 4, 2007

Performance Measure 9

1. A Scoping Statement for the Programmatic Environmental Assessment of the Oil Exploration and Production Activities in Southern Sudan.
2. Guidance on the sustainable development of the petroleum sector in Southern Sudan: elements of an environmental management system and structure for oil exploration and production.

Performance Measure 10

Performance Measure I

1. JICA Report on Juba Infrastructure & Planning.
2. Memorandum: Waste issues in Juba town and Update on brainstorming on the waste issues in Juba town.
3. Memorandum of Understanding: STEP, VEGA, and Safi Cleaners.
4. Final Report, Plastic Recycling Project.

Performance Measure 12

1. Agenda, Sudan-Uganda trans boundary technical committee Meeting, Kampala 18th -29th May 2008
2. Coordination outline for Southern Sudan partners working on the Southern Sudan Northern Uganda Trans boundary Peace Parks Initiative, November 1, 2007
3. Report on trans-boundary meeting in Nimule, April 2008
4. Report on trans-boundary meeting in Kampala, April 2008

ANNEX A

DISPOSITION PLAN: SUDAN TRANSITIONAL ENVIRONMENT PROGRAM (STEP)

The following tables indicate the proposed disposition of all items purchased with funds from the Sudan Transitional Environment Program.

Table 8 Items purchased to be disposed to the Directorate of Forestry

Ref. No.	Item	Serial Number	Condition	Estimated Residual Value US\$
	NO BIS LICENSE REQUIRED			
1	Sunto clinometer PM5/1520 Metric	721414	Good	65
2	Sunto clinometer PM5/1520 Metric	849841	Good	65
3	Sunto clinometer PM5/1520 Metric	723948	Good	65
4	Sunto clinometer PM5/1520 Metric	013617	Good	65
5	Silva Explorer compass	None	Good	30
6	Silva Explorer compass	None	Good	30
7	Metric Scale Spiegel Relaskop	20291	Good	1,590
8	Metric Scale Spiegel Relaskop	221021	Good	1,590
9	16" Complete increment Borer	None	Good	219
10	Hagelof callipers 50 cm	None	Good	80
11	Hagelof callipers 102 cm	None	Good	120
12	Diam tape. Model 283D/5M – 160 cm diameter in cm,	None	Good	115
13	Diam tape. Model 283D/10M – 320 cm diameter in cm,	None	Good	143
14	Length tapes. 50'/15m, MC-10M-50	None	Good	31
15	Length tapes. 100'/30m, MC-10M-100	None	Good	47
16	Length tape. 50m in meters, Model HY1750CM	None	Good	89
19	Toyota Hardtop Vehicle	No JTERB7160-0011369	Poor	10,000
20	Dell Latitude D 620	Q66M2-9VBGJ-XFQ2T-7BCWX-KRM76	Good	300
21	Dell Latitude D 620	HT9FD-29TRV-43MH6-GXKBW-Q646J	Good	300
22	Dell Latitude D 620	GB(7J-TT9YF-HW4QH-RXYQ8-GMJ8B	Good	300
23	Dell Latitude D 620	WDH9W-HKVHV-T34CT-W3MWT-D925	Good	300
24	Dell Latitude D 620	W6MF6-W9GVM-627HV-WCCR6-VXCQB	Good	300

25	Dell Latitude D 620	W6MF6-W9GVM-627HV-WCCR6-VXCQB	Good	300
28	Epson LCD Projector Model EMP 54	J3WQG5474QF	Good	1,479
31	Sony Cybershot Digital Camera	3584218	Good	484
32	Mextor One Touch	EDA-TA5000HO868171 TCD5EKRM	Good	450
	BIS LICENSE REQUIRED			
17	GPS unit	None	Good	100
18	GPS unit	None	Good	100
29	Motorola GP380 portable radio	749THAK867	Good	350
30	Motorola GP380 portable radio	749TGW4599		350
26	Thuraya Hughes 7101 satellite telephone w charger	ME_352384-00-113976-7	Good	200
27	Thuraya Hughes 7101 satellite telephone charger	MEI-352384-00-112933-9	Good	200

Note: All items located in offices of Directorate of Forestry, Juba

Table 9 Items to be disposed to the Directorate of Environmental Affairs

Item No.	Item Description	Serial Number	Condition	Estimated Residual Value US\$
	NO BIS LICENSE REQUIRED			
1	DELL Latitude D620 & case	VPQFV-4MY32-QJ8QM-738PO-RRC9W	Good	300
2	DELL Latitude 620 & case	T2XXG-33TCT-HR48H-8684Q-WDDM6	Good	300
3	HP Compaq 6000 w/o case	VY9KN-7RTWM-YFH64-26W42-YJVCD	Good	300
4	HP G60-120US Notelbook	6WKWR-6P8YC-CBJ79-RMCRP-WP3MK	Good	300
5	Printer HP Deskjet 3745	TH4SM1S3S8	Poor	120
6	Printer, Scanner, Copier Sharp AM 400	67103318	Poor	100
7	Printer HP Deskjet 3740	TH56813189	Poor	100
8	Printer HP Laser Jet 3052	Q6502A	Good	100
9	HP Printer Laser Jet P2015	CNBW6CQOQC	Good	100
10	EPSON Projector Model EMP S5	JWVF82Q342L	Good	1,500
11	Various spare oil and air filters	None	New	350
12	2005 Nissan Patrol	Chassis No 0544541; Engine No 177541	Good	38,000

Note: All items located in offices of Directorate of Environmental Affairs, Juba

Table 10. Items to be disposed to the Directorate of Wildlife

Item No.	Item Description		Condition	Estimated Residual Value US\$
	NO BIS LICENSE REQUIRED			
1	Toyota Land Cruiser Model HZJ 78 L	Chassis No JTGRB71JX87001373 Engine No 0582628	Good	27,300
2	Toyota Land Cruiser Model HZJ 78 L	Chassis No JTGRB71J387001375 Engine No 0582635	Good	27,300
	BIS LICENSE REQUIRED			
3	Codan Radio		Good	2,500
4	Codan Radio		Good	2,500

Note: Items 1 & 3 located in Nimule; Items 2 & 4 located in Torit

U.S. Agency for International Development

1300 Pennsylvania Avenue, NW

Washington, DC 20523

Tel: (202) 712-0000

Fax: (202) 216-3524

www.usaid.gov