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SUDAN TRANSITIONAL ENVIRONMENT PROGRAM

REPORT OF THE PROCEEDINGS OF
THE 6TH TRAINING WORKSHOP



November 2007

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Cover Photo: Group Photograph of Participants to the 6TH STEP Training Course
in EIA/ESD held at the Freedom Hotel, Bor, Jonglei State from 5th - 9th November 2007

SUDAN TRANSITIONAL ENVIRONMENT PROGRAM

REPORT OF THE PROCEEDINGS OF THE 6TH TRAINING WORKSHOP

IN ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTALLY SOUND
DESIGN FOR SMALL-SCALE ACTIVITIES
HELD IN FREEDOM HOTEL, BOR IN JONGLEI STATE
FROM 5TH - 9TH NOVEMBER 2007

FUNDED BY USAID/SUDAN TRANSITIONAL ENVIRONMENT PROGRAM (STEP)

November 2007

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CAR	Central African Republic
DRC	Democratic Republic of Congo
EA	Environmental Assessment
EIA	Environmental Impact Assessment
ENCAP	Environmental Capacity Project
GoS	Government of Sudan
GNU	Government of National Unity
GoSS	Government of Southern Sudan
HIV	Human Immuno-Deficiency Virus
IDP	Internally Displaced Persons
IEE	Initial Environmental Examination
NGO	Non Governmental Organization
PEA	Programmatic Environmental Assessment
PERSUAP	Pesticide Evaluation and Safer Use Action Plan
SEA	Strategic Environmental Assessment
SFO	Sudan Field Office
USAID	United States Agency for International Development
IRG	International Resources Group
STEP	Sudan Transitional Environment Program

I. INTRODUCTION

This was the 6th EIA training Course organized and delivered by the USAID/Sudan Transitional Environment Program (STEP), and the 2nd to be conducted at the state level, in this case Jonglei state. Participants to the course were mainly drawn from the various state government ministries and a few were drawn from Non governmental Organizations (NGO's). Many of them had relatively low levels of education and work experience, which compelled the facilitators to adjust accordingly so as to communicate with them. The interest shown for the course was overwhelming and in total, there were forty-two (36Males:6Females) participants to the course, which is the largest number we have trained in a single STEP training course. The course commenced on the 5th of November and ended on the 9th of November. The state leadership showed a lot of interest in the course and participated in the official opening and closing ceremonies.

I.1. OPENING SESSIONS

Welcoming Speech by Course Coordinator

Ms. Jane Kahata

Ms. Jane Kahata, the STEP EIA Specialist and Course Coordinator gave a welcome speech to the participants and thanked them for the great interest they had shown in the course. Over sixty persons had been nominated to attend the Course but only 45 were accepted since we could not handle more than that number. The course Coordinator noted that it was her expectation that those who had received the training would be able to train and/or disseminate the information and knowledge gained to others within the state. She then gave a brief background on USAID supported environmental capacity building initiatives in Southern Sudan since March 2004 and the STEP project which commenced in August of 2005, noting that the Bor EIA training course was going to be the 6th funded by the USAID. A total of 177 persons had received similar training to date in Southern Sudan.

I.2. PARTICIPANTS INTRODUCTIONS AND EXPECTATIONS

Facilitated by Cecelia Mogga Kenyi

Introductions were conducted by Cecelia Mogga of the Directorate of Environmental Affairs, (GoSS). Each of the participants was asked to introduce themselves, giving their names, the organizations they work for, their positions/designation and their expectations about the course. They also gave their expectations that are summarized below:

- Learn about environmental issues in Jonglei state and how to mitigate against them so as to improve our environment;
- Share experiences and knowledge with others from the state;
- Learn about the EIA process and methodology;
- Learn more about sustainable development and how this can be applied to improve livelihoods in the state;
- Acquire skills for environmental management and be able to disseminate the same to others;
- Learn more about the environmental impacts of oil exploration and production in Jonglei state and Southern Sudan;
- Learn more about water pollution and how to control it.

I.3. PRESENTATION OF COURSE OBJECTIVES

By Ms. Jane Kahata

The course objectives were presented by Ms. Jane Kahata who noted that the objective of the course is to assist the participants to use simple environmental assessment tools to better design and implement environmentally sound activities. She elaborated that to achieve this objective the course had been designed to help participants to:

- Develop a deeper understanding of how environmental issues can affect the sustainability of development programs and activities;
- Understand the basic Environmental Impact Assessment (EIA) process;
- Build skills to identify and assess reasonably foreseeable environmental impacts;
- Design mitigation and monitoring measures to avoid adverse environmental impacts.

The course was therefore focused on developing the participants' capability to (a) prepare preliminary environmental assessment reports as well as provide relevant supporting materials, and (b) design mitigation, monitoring and evaluation plans for activity components with potential negative impacts and lastly (c) prepare participants for participation in some way or other during any of the various stages of the EIA process such as review of EIA reports, development of Terms of Reference for EIA studies etc. The course would also raise environmental consciousness and help create a constituency for sound environmental management practices within Jonglei state.

OFFICIAL OPENING CEREMONY

Brief Speech by Hon. Eng. Amour Kuol Ager
Minister for Physical Infrastructure

The Minister emphasized the importance of safeguarding the states' environmental and natural resources for which Jonglei State was richly endowed. He further enumerated the various environmental/natural resources issues and problems that the state was currently facing. The Minister who is a very pragmatic person came with samples of things/materials that were affecting the State's environment adversely. These included the water hyacinth, packaging materials for juices, plastic water bottles, paper, insecticide cans and charcoal. He told the participants that each of those issues/problems needed to be redressed. Other problems that he pointed out were road construction activities that were creating stagnant pools of water, and lack of sanitation facilities which in some cases led to the pollution of water resources. He noted that our actions will always be either friendly or unfriendly to the environment, and as such, participants and the general public need to be very careful about their activities at all times.

Speech by Hon. Dr. Biar Deng Biar
Minister for Agriculture

The Minister started his address by noting that the environment should be the concern of everybody in the State, and reiterated that his Ministry was committed to conserving it. He emphasized the importance of sustainable management of natural resources and asked the participants to go out and conserve their environment and the many resources that they had been endowed with, noting that the purpose of the training program funded by USAID through the STEP was to equip them with skills for assessment which should be put to use after the course. The ultimate benefits of the course could only be realized once the participants implemented actions that are geared towards the conservation and protection of their environment.

Speech by the Governor, Jonglei State
His Excellency Brig. Gen. Phillip Thon Leek

The Governor started his address by enumerating his past involvement with USAID for several years when he headed the Development Assistance Technical Team (DATI) within the Sudan Peoples Liberation Army/Movement (SPLA/M). He noted that under the DATI then, they were trying to orientate Southern Sudan from relief to development and the team was comprised of five persons representing each of the five regions in Southern Sudan. During this time, DATI lobbied for more support from USAID to other sectors besides relief. As a result, USAID agreed to fund some studies on the impacts of war on wildlife and other social issues such as the impacts of oil exploration and production. Later, USAID agreed to fund EIA training courses in an effort to create awareness as well as impart skills to Southern Sudanese professionals on the likely environmental consequences of poorly implemented development activities. The first EIA course was conducted in March, 2004 in Yei.

His Excellency the Governor noted that he had nominated people from Jonglei State to attend some of the EIA training courses that have been held in the past, but due to logistical problems, they had not been able to attend. He added that it was nice to see young people sitting to be trained, noting that war had destroyed so much, including opportunities for people to get an education and be trained. Education and capacity building programs was GoSS's priority number one, since this is one area that had been grossly neglected in the past by the Sudan Government, he added. The governor also told the participants that he is not an environmentalist by profession, but he had oriented himself towards the subject, and that is what each of the participants needed to do.

The Governor further added that Bor town used to be very clean before war broke out. At that time, people used baskets instead of polythene bags which have now littered the entire town, adding that plastics are enemy number one for the livestock industry. He emphasized the importance of the environment noting that "Environment is our Mother". As such, we all need to safeguard it at all times. Man he said was an enemy of himself through the actions that he did to his environment. We need to conserve the environment for our posterity.

He challenged the participants to implement what they learn in order to keep the environment clean, noting that training was not the most important aspect, but implementing the things that are learned during the course. "Nobody wants to live in a dirty environment", he noted, adding that it is good to have flowers and some greenery around us. He further added that human greed has led to increased production of goods and services, during which process, CFC gases are produced and this in turn hurts us as human beings.

While highlighting the problem of deforestation, he gave the participants the example of the John Garang De Mabior Institute of Science and Technology, whose construction had just been initiated, noting that the construction of the buildings had left most of the trees intact because they were conscious of the environmental impacts of clearing everything. He emphasized when constructing, you only needed to clear trees on the actual site to be covered by the buildings.

He went on to highlight some of the other environmental issues/problems that are affecting Jonglei State such as:

- a. People were defecating everywhere;
- b. Construction of roads without adequate drainage structures and culverts created a micro-climate and stagnant pools of water that in turn became breeding grounds for disease vectors;
- c. Construction of the Jonglei Canal in the late seventies was a threat to wildlife coming from the east that fell into it, noting he once personally counted up to 5000 dead topis then. The impact of the canal on the Sudd would be significant and this would in turn affect the biodiversity resources of the Sudd region which is a tourist attraction. The other threat would be a reduction of the grazing area as a result of the draining of the Sudd wetlands by the canal, noting that the canal was not a priority for the state;
- d. Oil exploration and exploitation was controversial and damaging to the environment and care needed to be taken not to destroy the natural resources of the state such as wildlife for which Jonglei state boasts of about 85% of Southern Sudan's wildlife. This included about 1.3 million of the white eared Kob and about

600,000 topics. It was the duty of the participants to tell the rest of the populace in the State not to kill wildlife.

- e. Poor sanitation due to lack of sanitary facilities and cultural issues/practices was also a threat to human health and the water resources. The participants should encourage the local people to dig pit latrines since environment is the sum total of everything around us. “Let every body improve their compounds and keep them clean”, he added. Poor sanitation practices in Bor and Jonglei State would pollute the waters of the River Nile and this in turn would kill fish. Polluted water also loses much of its aesthetic appeal. The Governor also noted that Juba town is riddled with problems of pollution and Bor town should challenge Juba in terms of cleanliness. He noted that the training course is not just an academic exercise but that the participants should implement what they learn, which would help give Juba a challenge, adding that he would be happy to see young people take their environment as they do to their houses. He concluded that no man would look at a dirty girl and vice versa.

He then declared the workshop officially open.

I.4. COURSE TRAINERS/FACILITATORS

Jane Kahata EIA Specialist, International Resources Group (IRG)

Cecelia Mogga Senior Inspector, Directorate of Environmental Affairs (MEWCT)

Fiesta Warinwa African Wildlife Foundation (AWF)

Moses Gogonya Assistant Inspector, Directorate of Environment, (MEWCT)

[Contact details are in Annex 3 – Participants’ List]

2. MODULE PRESENTATIONS

The course content was based on the ENCAP EIA training materials and PowerPoint presentations. This section however focuses only focuses on:

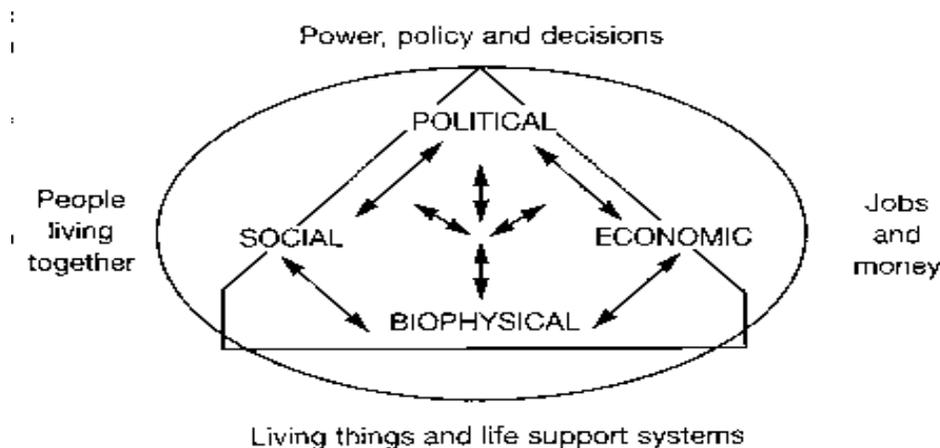
- Issues/discussions arising from the modules that had opportunities for practical group exercises;
- Key issues raised and discussed about environmental issues in Jonglei State and Southern Sudan
- Issues arising from the preparation and presentation of Environmental Review Reports/Preliminary Environmental Assessment Reports and Mitigation and Monitoring Plans developed after the field case study visits.
- Recommendations and Way Forward

2.1. WHAT IS ENVIRONMENT?

Facilitated by Fiesta Warinwa

This session kicked off the course as is the practice with previous courses. It gives participants an opportunity to explore and understand the meaning of the word environment. It is usually a great help as the participants proceed with the course having a better understanding of the word environment and its components in its broadest sense. From the responses given by the participant's, it can be deduced that they all had a fairly good understanding of the meaning of the word environment. They were also able to list the various components of it and share their thoughts on the subject.

After going through and discussing the responses, the facilitator summarized everything, emphasizing the interactions between and among the various aspects/dimensions of environment according to the O, Donoghue Model shown below.



Source: (2000) Environmental Education Processes

2.2. KEY ENVIRONMENTAL ISSUES IN JONGLEI STATE THAT AROSE FROM THE PRESENTATION OF THE BIOPHYSICAL AND SOCIAL CULTURAL ISSUES PAPERS

Jonglei state is richly endowed with natural resources which have barely been exploited for development. Poverty is therefore rampant in most of this vast state which has very poor communications infrastructure. Some of the participants were very interested in the issue of oil exploration and production which although having a great potential for raising the economic well being of the state should be exploited with caution so as not to degrade the environment.

Some of the participants also felt that the local communities who owned these resources have not been consulted during past and on going oil exploration activities. As such, they risked being disenfranchised. Some of the participants were interested in knowing the stake of the local people is with regard to the proceeds from the oil industry.

The well known and emotive case of Jonglei canal was cited as a case study for the need for comprehensive EIA Studies for environmentally sensitive projects. Participants emphasized on the need to conduct EIA studies especially for oil exploration and exploitation before commencement of projects to avert and/or mitigate negative environmental impacts of such projects.

Poor sanitation within the town and its environs was also cited as a key issue that needed to be addressed urgently. Participants noted that some people were willing to hire motor bikes to be taken far away into the bush to relief themselves but could not dig pit latrines in their homesteads. Pit latrines that had been dug in the town had not been received very well by the residents, who were not using them, perhaps due to negative cultural beliefs and practices that needed to be addressed.

Flooding although a natural phenomenon was cited as one issue that causes a lot of problems in Bor town as most of it gets affected. Participants felt that the issue needs to be addressed. During such period, the prevalence of water borne diseases increases. There was no consensus on whether the Bor Dykes project was a good thing or not. Some participants felt that the project was a good thing as it would protect people from the floods while others felt it would reduce the wet season grazing grounds.

Return of high numbers of IDP's coupled with insecurity that is prevalent in most of the areas outside of Bor town is increasing the number of water based conflicts as more people try to fetch water from the few water points that are in the town.

Some of the participants noted that people in Jonglei State generally were earning a livelihood through cutting trees for charcoal which they sold to northerners. This was likely to continue unless alternative livelihood options were provided.

The question of who owns the land in Southern Sudan was raised - did land belong to the government or to the local communities?

Someone also wanted to understand the linkages between the current state of the economy in Jonglei state and the national economy

Issues of public participation in project development were raised with some of the participants noting that some very good projects had been initiated but people had rejected them. They wanted to find out what should be done in such circumstances. An example of a rice project that had been initiated by the Government but rejected by the local people was given as an example.

3. FIELD CASE STUDY VISITS/PRELIMINARY ASSESSMENT FIELD WORK

On the third day of the workshop (7th November), the participants visited the following sites for their field case studies:

Group 1: Case Study on Environmental Impacts of Rural Roads Rehabilitation Activities: The main road from the Ascom Sudd Ltd construction camp to Bor town was used for the case study. One section of the road was undergoing rehabilitation and was in relatively good state, while the other section from the airport to the town was in very poor condition.

Group 2: Case Study on Environmental Impacts of Water and Sanitation Projects – This case study focused on several water points/hand pumps in the town. Sites visited included, the Bor Secondary, the Bor Comprehensive Primary School, River bank and the Dukrut water points.

Group 3: Case Study on the Environmental Impacts of Building Construction Activities - The John Garang De Mabior Institute of Science and Technology (JGMIST) was the focus of the case study. This institute is under construction and provided a good learning opportunity for the impacts of construction activities.

Group 4: Case Study on the Environmental impacts of Health Care Facilities: The target of the case study was Bor State hospital. Focus was especially on the treatment, disposal and handling of medical wastes as well as the water and sanitation provisions in the Hospital and their possible impacts.

Participants spent about half a day doing the work. Heavy rains however affected the time of departure. They were all however able to visit the various places and complete their assignments. This exercise was quite useful as it exposed the participants to some of the environmental issues/problems affecting the town.

3.1. PREPARATION AND PRESENTATION OF GROUP PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORTS

The preparation of preliminary assessment reports was preceded by a briefing session on the report format and style for report writing. This was done to enable participants to have a common understanding of the topics to cover and how to present the information. The following format was adopted for this exercise.

CONTENTS OF THE PRELIMINARY REPORT

- Project name
- Location
- Development objective of your project
- Background to the project
- Screening/screening results
- Project activities and the associated impacts of each activity for every stage of the project cycle (Planning and Design; Construction, Operation & Decommissioning)

- Description of the Environment
- Recommendations
- Presentation of environmental impacts using the interaction matrix

Observations made from the Presentations on the Preliminary Assessment Reports

All the four groups made fairly good reports consistent with the format provided and were able to pick out most of the important issues relating to their sectors. However, the presentation of the interaction between the project actions and the associated impacts was a challenge especially with regard to assigning significance scores. As with previous case studies, the criteria for determining significance of impacts does not always readily settle well with the participants and the tendency is always to give any impact identified as negative a high score. The presentations were all complimented by sketch maps of the case study sites.

The following were the main observations made by the four groups:

ROADS CASE STUDY:

- The initial contractor who did the road did not put in place adequate drainage structures leading to its rapid degeneration;
- There is no maintenance capability within the Ministry of Physical Infrastructure which meant that regular maintenance works were not being undertaken;
- There is a high population of livestock moving on the road. This worsens the condition of the road especially during the wet season.
- The flat nature of the terrain in Bor complicates issues of drainage and where the road has been raised, the road then acts as a dike.
- The borrow pit excavated to provide road construction materials had not been decommissioned thereby posing a safety and health hazard to the people who live in the neighborhood, especially those in a military camp just next to it.
- Some trees had been cleared during the widening of the road, but the impacts of it were not considered significant.

WATER & SANITATION CASE STUDY



Jerrycans with blue-green Algae on inside

- Key water supply points did not have management committees. The management, repair and rehabilitation of the boreholes and hand pumps is centralized within the Department of Water.
- General Sanitation around the water points was poor with stagnant pools of water around.
- People were fetching water using extremely dirty jelly cans which had accumulated a film of blue green algae to the inside. Perhaps the proliferation of the Green algae is as a result of fetching river water which is highly polluted during certain periods of the year.
- Levels of sanitation are generally very poor in Bor town and much of the adjacent villages.

- As the numbers of returnees continue to increase, water related conflicts are likely to escalate unless the existing water points are increased.
- Lack of a water quality testing laboratory means that it is difficult to maintain water quality. As a matter of urgency; a laboratory needs to be established in Bor town.
- Poor sanitation within the town was polluting the waters of the Nile on which the town is constructed. Lack of solid waste disposal facilities was also adding to the wastes finding their way into the River.

BUILDING CONSTRUCTION CASE STUDY



Pollution of River Nile - Bor Town

- The John Garang De Mabior Institute of Science and Technology (JGMIST) is being constructed in an environmentally sound manner and only the trees that lie in the way of the proposed buildings have been cut.
- The Institute that is to offer a wide range of technical and managerial courses would greatly confer benefits to the people of Jonglei State who have greatly been disadvantaged in terms for education. It would also act as a stimulus for other businesses in and around the Institute.
- The college that is located on 1900 hectares of land has ample grounds for future expansion and much of the institutes land would still be left intact.

HEALTH CARE FACILITIES CASE STUDY

- The hospital that was constructed in the 1950's is the only referral hospital in Jonglei state. Due to the lack of other health care facilities in the state, the number of patients who sought services here was so large that the hospital facilities and staff are overstretched. Having been set up long ago, the space allocated for it was quite small and this presented a problem when siting the facilities. The participants observed the close proximity of toilets to the wards and even to the kitchen. This presented a perfect example of siting that was not environmentally sound in design.
- MSF, an NGO had done a good job by designing and constructing disposal facilities for medical wastes. This good effort is however constrained by lack of adequate space. They had overcome this by ringing off the waste disposal site. A disposal pit that was lined had been constructed for tissue waste disposal as and ashes from the incineration process.
- Waste water from the laundry was spilling into the compound and this was quite an eyesore. Similarly, it was observed that the new method that MSF had devised of disposing off waste water was not working well as the waste water was spilling out of the leach fields created for that purpose. The nature of the impervious soils that don't allow for percolation compounded the problem.



Wastewater in compound

4. PREPARATION AND PRESENTATION OF MITIGATION AND MONITORING PLANS

After the presentation of the draft environmental review reports/preliminary assessments, each group prepared mitigation and monitoring plans for the three most significant impacts they had identified. Before breaking into groups, they were again given a briefing session on how to go about the exercise and a standard format to be used.

4.1. OBSERVATIONS MADE FROM THE MITIGATION AND MONITORING PLANS

Each of the groups did fairly well in identifying appropriate mitigation measures for the significant impacts as well as assigning responsibilities for mitigation and monitoring during the various stages of the project cycle. Where there was a mix up of the mitigation and monitoring responsibilities, these were clarified by the facilitators. Of importance is that construction phase monitoring responsibilities lies with the contractors, while the client responsibility for monitoring during the operation Phase. However, under contractual arrangements, such responsibilities can be assigned to a contractor during the operation phase by the client. The facilitators also emphasized that monitoring indicators must also be able to measure the parameters being monitored.

5. CONCLUSIONS, RECOMMENDATIONS AND WAY FORWARD

This training course was well received in the state as demonstrated by the good attendance. The participants were in agreement that the state of the environment in the state was in an appalling situation particularly regarding issues of water and sanitation. The morale of the participants was boosted by the presence of the Governor and the Minister for Physical Infrastructure under whose docket the Department of Environment falls. The two Ministers gave very encouraging speeches that challenged course participants to take action to protect their environment. The enthusiasm of the participants was shown in their decision to launch the Jonglei State Environmental Association.

During the official closure of the workshop, the participants presented a memorandum to be given to the State Governor which contained their recommendations and a way forward with regard to the environment in the state. The memorandum is attached to this report.

ANNEX I: RECOMMENDATIONS

Freedom Hotel
P. O. Box
Bor-Jonglei State

9th November, 2007

Office of Governor
H.E Brig. Gen Philip Thon Leek
State Governor
Jonglei State
Southern Sudan

Dear Sir,

Ref: Recommendations on Environmental Status of the State - Bor

With all honesty, we salute your Excellency. In a special way, we the participants for Environmental Impact Assessment (EIA) training course conducted between 5th and 9th November 2007, appreciate all your endeavors to bring this important training to Jonglei State.

During the course, we visited some key places in and around Bor town and we highlight the following observations and recommendations:

Water and Sanitation

The team has observed poor sanitation, limited number of boreholes, insufficient number of both private and public latrines, poor hygiene at the butcheries and water points.

Recommendations:

- Re-location of the slaughterhouse away from water sources by about 30meters
- By-laws be enforced for households to construct pit latrines and a rubbish pit
- Increase number of boreholes to cater for increasing population
- Formation of water management committees whose duties shall include checking of containers being used for fetching water. Providing security at water points and cleaning the borehole areas regularly.

Training of the committees on basic hygiene and water management system

Waste disposal

We have observed a number of solid waste materials not properly disposed. These include: water bottles, plastic bags, plastic containers, papers, pieces of iron bars and woods.

Recommendations:

- Establishment of pits for dumping solid wastes
- Total ban on use of plastic bottles, more precisely for soft drinks such as Coca Cola etc
- Encourage traders to import glass bottled soft drinks
- Use of baskets instead of plastic paper bags
- Provision of waste bins in and around markets and other designated points in the town
- Levy charges for waste materials collection particularly on shops and other businesses.
- Daily trucks to collect the waste materials to the dumping site
- Creation of public hygiene and cleaning days (twice a month) in all the counties of the state
- By-laws governing NGOs on sanitation and health in the state

Lawlessness and Insecurity

There is massive influx of people to the town due to insecurity particularly from the town's neighboring areas. This has resulted to lawlessness, congestion at the water points, hospital and other social amenities. There is also an increase in the number of livestock roaming in and around the town, poaching of wildlife and increase in bush meat sales in the local markets and increase in commodity prices.

Recommendations:

- Increase number of soldiers to maintain law and order in the town and its environs
- Anti-poaching laws to be enforced by the wildlife department
- Constant patrols be conducted by the wildlife rangers
- Sensitize the local communities on the benefits of conservation
- Formation of wildlife clubs in schools and in the State?

Deforestation

Due to increase in human population, the demand for construction materials and fuel has increased. Trees are regularly being cut down to meet domestic and commercial demands. This has resulted into forest depletion which will eventually lead to desertification

Recommendations:

- Introduction of tree planting (indigenous species)
- Sensitization and awareness creation among the local communities on the importance of forests
- Urge the forestry department to implement their mandate as appropriate

Exploitation of Natural Resources

The team has also observed there is a high demand for exploitation of natural resources; oil, forests, fish and other forms of resources.

Recommendations:

- Full EIA studies be conducted by the oil exploration companies before commencement of their operations
- Communities be consulted before any exploration process is undertaken
- State to develop policies and regulations to govern the exploitation of natural resources

Road Construction

The available roads in the town are in a very poor state with poor drainage leading to stagnation of water in the town

Recommendations:

- Drainage system be improved and rural roads be constructed in the dry season
- Culverts be constructed
- Construction of water channels to improve on the drainage within the town and its environs

Community Sensitizations and Awareness

The team has clearly observed that most of the local communities are ignorant about hygiene, child education, diseases such as HIV/AIDS, malaria and many others.

Recommendations:

- Conduct sensitization workshops
- Establish laws that compel members of the communities to implement some of these activities, for example sending their children to school
- Empower the youth and women to participate in developmental activities

Conclusion

Your Excellency Sir, based on the above observations, and appreciating that it is the duty of all citizens of the state to improve their, health, security and education, we urge the state to facilitate the implementation of the above recommendations.

Appreciating the complexity of bringing together groups from eleven counties of the state, we nevertheless commit ourselves to spearhead the way forward by example. Consequently, as we await the official response of the above recommendations, we seek your blessings for the establishment of Jonglei State Environment Association. The association will take up implementation of some of the recommendations with limited financial demands. Meanwhile, we would also like to request other institutions such as the churches to assist us in accomplishing this goal by spreading the message of keeping Bor Town and State clean.

As a group we have committed ourselves to ensure that the state of Jonglei becomes a role model in Southern Sudan for cleanliness.

We hope our recommendations will meet your kind considerations

All participants of EIA training course -Jonglei State

Yours Faithfully,

cc: H.E. Minister for Physical Infrastructure

cc: H.E. Minister for Health

cc: H.E. Minister for Education

cc: H.E. Minister for Social Development

cc: H.E. Minister for Agriculture

cc: County Commissioner - Bor

ANNEX 2: EVALUATION

6TH ROUND STEP EIA COURSE EVALUATION SCORE HELD IN BOR, JONGLEI STATE, (5TH – 9TH NOVEMBER, 2007)

Question	Average Score is lowest, 5 is highest
1. How would you assess the overall quality of the course?	4.4
2. The Extent to which the course improved your understanding of environmental assessment and management?	3.8
3. The extent to which you now feel prepared to undertake or assist in the preparation of a preliminary assessment?	3.5
4. Course scheduling and organization	3.8
5. Course logistics and venue	3.3
6. Contents of participant's source book	4.6
7. Contents of Environmental Guidelines for Small Scale Activities	4.6
Facilitation	4.4
Average Score	4.1

COURSE EVALUATION COMMENTS – SAMPLE COMMENTS TO THE VARIOUS QUESTIONS

1. How would you assess the overall quality of the Course?
 - Excellent
 - The course was an introduction to the importance of the environment and EIA in keeping our environment clean
2. The extent to which the course has improved your understanding of environmental assessment and management?
 - The course is excellent as it has provided me with good knowledge
3. The extent to which you now feel prepared to undertake or assist in the preparation of a preliminary assessment?
 - I can now be able to do the preliminary assessment without difficulty
 - It is not clear due to limitations of time
4. Course scheduling and Organization
 - Excellent

5. Course Logistics and Venue
 - Very good according to Bor situation
 - Venue was okay but logistics?

6. Contents of Participants Source book
 - It is a good reference for study

7. Contents of Environmental Guidelines for Small Scale Activities
 - Very resourceful
 - Excellent

8. Facilitation
 - Excellent
 - Up to standard
 - Very interesting style
 - The methods used by the facilitators is excellent
 - Course was interesting and enjoyable

ANNEX 3:AGENDA

USAID/SUDAN ENVIRONMENTAL CAPACITY BUILDING COURSE VENUE: FREEDOM HOTEL, BOR JONGLEI STATE DATES: 5TH – 9TH NOVEMBER 2007

Time	Event or Module	Materials
<i>DAY 1: Introduction to Environmentally Sound Design</i>		
8:00 – 8:30	Arrival & Registration of Participants	Moses Gogonya
8:30– 9:00	1. Participant's Introductions, solicitation of Group Goals and presentation of Course Objectives	By Cecelia & Jane Kahata
9:00 – 10:30	Welcoming speeches	Cecelia Mogga, Minister for Physical Infrastructure Minister for Agriculture Governor Jonglei State
<i>10:30 – 10:45</i>	<i>Tea Break</i>	
10:45 – 12:30	2a) What is Environment? (30 Mins) 2b) An Introduction to Environmentally Sound Design	By Cecelia Mogga ESD overheads (PPT 2596KB) "Env. Sound Design" (From new Draft Small Scale Guidelines) (PDF, 349K) By Jane Kahata
12:30 – 13:00	Principles and practice of Environmentally Sound Design in key sectors (with opportunity for discussion of participants experiences)	New draft Environmental Guidelines for small scale activities (see resources pages) Jane Kahata
<i>13:00 – 14:00</i>	<i>Lunch</i>	
14:00 – 16:00	Constructing a Historical Timeline for Southern Sudan	Fiesta Warinwa, Cecelia Mogga & Moses Gogonya
<i>16:00 – 16:15</i>	<i>Tea Break</i>	
16:15 – 17:00	Basic Concepts for Assessing Environmental Impacts	Fiesta Warinwa
18:00 18:30	Facilitators Meeting	All facilitators

Time	Event or Module	Materials
An Introduction to USAID, World Bank & Nuba Mts Screening Procedures		
8:30 – 10:00	5. An introduction to USAID, Nuba Mts & World Bank Screening Procedures	Overheads PPT 318 KB By Jane Kahata
10:00 – 11:00	Workgroup exercises: Classifying activities using USAID Environmental Procedures: Classifying Projects using Reg. 216	EGSSAA: Chapter 6 Screening activities By Jane Kahata
<i>11:00 – 11:15</i>	<i>Tea Break</i>	
11:15 – 12:15	Information Requirements & Tools for Preliminary Assessment	Overheads PPT (328 KB) By Fiesta Warinwa EIA Topic Briefing Section 3 PDF 513K
12:15 – 13:00	Biophysical Environmental Issues Paper Presentation	Cecelia Mogga
<i>13:00 - 14:00</i>	<i>Lunch</i>	
14:00 – 15:00	Social Economic Paper Presentation	Moses Gogonya
15:00 – 16:00	Plenary Discussion of Issues arising from the Biophysical and Social economic and cultural issues Paper	Moderated by Cecelia and Moses
<i>16:00 – 16:15</i>	<i>Tea Break</i>	
16:15 – 17:00	Introduction to Environmental Mitigation and Monitoring	Mit & Mon overheads (PPT 1922K) EIA Topic Briefing (Section 4) By Jane Kahata (PDF, 513K)
17:00 – 17:15	Field Trip Briefings	Case site briefs prepared by course organizer (samples available in the participant's manual). By: Jane Kahata

Time	Event or Module	Materials
<i>Day 3 Field Case Study Visits</i>		
Departure 9:30	Field trips to case study sites. (Working groups of about 10 participants travel to separate sites; conduct preliminary assessments in the field.	All Facilitators
13:00 – 14:30	<i>Lunch</i>	
15:00 – 15:30	Briefings on how to prepare the Environmental Review Reports	Jane Kahata
15:30 – 17:00	Groups discuss and start preparing their Environmental Review Reports	All Facilitators
<i>DAY 4: Producing Environmental Reviews and Monitoring and Evaluation Plans based on the field trips</i>		
08:30 – 11:30	Working Groups: Drafting Environmental Reviews for Case Studies (includes tea break)	All Facilitators
11:30-13:00	Presentation and discussion of Draft Environmental Review Outlines	Moderated by Fiesta Warinwa
13:00-14:00	<i>Lunch</i>	
14:00 - 17:00	Environmental Mitigation and Monitoring: More on Issues and Methods Working Groups: Developing Plans for Monitoring and Mitigation for Case Studies.	Mit & Mon overheads (PPT 1922K). By Jane Kahata EIA Topic Briefing (Section 4) (PDF, 513K)
<i>DAY 5: Mitigation and Monitoring Plans, EIA Tools, and Synthesis</i>		
08:30-11:00	Working Groups: Developing Plans for Monitoring and Mitigation for Case Studies. Includes Tea Break	All Facilitators
11:00 – 13:00	Presentation and Discussion of Draft Mitigation and Monitoring Plans	Moderated by Fiesta Warinwa
13:00 - 14:00	<i>Lunch</i>	
14:00 – 14:45	What if I have to go Beyond the Preliminary Assessment	Overheads (PPT 270KB) By Jane Kahata
14:45 – 15:15	Special topics: - Environmental Impacts of Pesticides - Other special topics	Overheads (PPT 211KB) By Fiesta Warinwa
15:15 – 16:00	Course Evaluation, Synthesis, and Recommendations for Follow-up Activities	Moderated by Moses Gogonya
16:00 – 16:15	<i>Coffee Break</i>	
16:15 – 16:45	18. Closing	By State official

ANNEX 4: PARTICIPANTS LIST

6TH STEP EIA TRAINING COURSE HELD IN BOR – JONGLEI STATE, SOUTHERN SUDAN (5TH - 9TH NOVEMBER 2007)

Name of Participant	Gender	Organisation/Ministry	Designation	Level of Education	Telephone	Email
Atena Bol Ajourng (F)	F	Ministry of Agriculture, Forestry, Animal Resources & Fisheries	Extension Worker	O Level		
Manoah Yar Mary (F)	F	Ministry of Agriculture, Forestry, Animal Resources & Fisheries	Extension Worker			
John Jurkuch Yak	M	Department of Rural Water Development	Technician	Diploma		
Manyok Andrew John	M	Department of Mining	Inspector	A Level	+882 1655526864	yaakkondit@yahoo.co.uk
Nathaniel Deng Gon John	M	Department of Mining	Inspector	O Level		
Aduot Peter Garang	M	Ministry of Physical Infrastructure		O Levels		
Mach Thul Guut	M	Ministry of Education, Science and Technology	Inspector	Diploma		
Rev. Paul Piool Nomlaaw	M	Ministry of Education, Science and Technology	Teacher	Diploma		
Awad Doka Madit	M	Ministry of Education, Science and Technology	Principal of Institute	BA Education		
Stephen Arou Alier	M	Ministry of Education, Science and Technology	Supervisor	Diploma		
Peter Manyok Patirit	M	City Council - Bor	Inspector	Diploma		
Kwai Samuel Chier	M	Department of Wildlife	Supervisor	O Level	+882 1655532080	
Johnson Maper Kuch	M	Ministry of Social Development	Youth & Sports Officer	O Level		
Peter Gatkuoth Makouch	M	Ministry of Local Government	Inspector	Graduate		
Abraham Jok Akuien	M	Ministry of Local Government	Deputy Director	BA		
Paul Alim Amol	M	Ministry of Physical Infrastructure	Director for Environment	Diploma in Education		

Name of Participant	Gender	Organisation/Ministry	Designation	Level of Education	Telephone	Email
Deng David Dut	M	Ministry of Physical Infrastructure	IT Officer	A Level		atemajak@yahoo.com
Gabriel Atem Manyuon	M	Ministry of Physical Infrastructure	Surveyor	Diploma		
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Meshack Akuot Makur	M	Ministry of Agriculture, Forestry, Animal Resources & Fisheries	Forest Ranger	Diploma		
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Elijah Magot Anyang	M	Information and Communications	DIG	Diploma		
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Peter Mawa Jonathan	M	Adventist Relief Agency (ADRA)	Water & Sanitation Officer	BA Rural Development		
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Joseph Ojulo Adawanga	M	Ministry of Health	Public Health Department			
Chuol Kun Duoth	M	Ministry of Animal Resources	Inspector			
Gatluak Dak Kuay	M	Ministry of Animal Resources	Inspector			
Gloria Michael Chot	F	Local Government	Administration Officer			gloriachot@yahoo.com
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Name of Participant	Gender	Organisation/Ministry	Designation	Level of Education	Telephone	Email
Lueth Kuer Lueth	M	Ministry of Education	Manager		+882 1667504384	
John Maal	M	Housing	Director of Housing			
Samuel Manyiel Lazara	M	County Health Department	Director Community Health - Bor			
Zakaria Arok Thuc	M	Ministry of Education	Act. Director - Public Health			
Joseph Anyieth	M	Ministry of Agriculture, Forestry, Animal Resources & Fisheries				
Susana William Alem	F	Ministry of Agriculture, Forestry, Animal Resources & Fisheries				
Abdon Machot Deng Malou	M	Ministry of Agriculture, Forestry, Animal Resources & Fisheries				

COURSE FACILITATORS

Name of Participant	Gender	Organisation/Ministry	Designation	Telephone	Email
Jane Kahata	F	International Resources Group (IRG)	EIA Specialist/Training Coordinator	+254 (0) 722 239807; +256(0) 477162263	jkahata@yahoo.com
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