



# Final Report:

## USAID/Malawi Environmental Assessment and Environmentally Sound Design Course Delivery

**17-21 October 2005 ■ Lilongwe, Malawi**

**To:** Autman Tembo (USAID/Malawi)  
Mary Lewellen (USAID/Malawi Mission Director)  
Todd Johnson (DAI/Malawi)  
Camilien Saint-Cyr (USAID Regional Environmental Advisor)  
Walter Knausenberger (REDSO/ESA/FS)  
Brian Hirsch (AFR/SD)  
Wes Fisher (Cadmus Group)

**Cc:** Rosie Chekenya (ROSCAM Consultancy/Zimbabwe)  
Waiswa Ayazika (Cadmus Group/Uganda)  
Shreedhar Kanetkar (Cadmus Group)  
Mark Stoughton (Cadmus Group)  
Jodi Bryan (Cadmus Group)  
Tim Resch (USAID Bureau Environmental Advisor)  
Anne Lewandowski (IRG)  
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**Date:** 20 December 2005

### **Attachments:**

Participant list  
Final Agenda  
Final case site descriptions  
Course evaluation results and full comments  
USAID Press Release 17 October 2005  
The Daily Times press coverage 19 October 2005  
Photograph of the participants with the Honorable Minister Banda  
Presentation of Sambo

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## Background and overview

USAID/Malawi sponsored this presentation of the Africa Regional Course in Environmental Assessment and Environmentally Sound Design for Small-Scale Activities. The course, developed by the Environmental Capacity Building Program (ENCAP) of USAID's Africa Bureau, was delivered to an audience of USAID/Malawi partners, Government of Malawi professional staff, and USAID/Malawi staff.

Jeffrey Rosenblum, The Cadmus Group, undertook an ENCAP-funded preplanning visit to Lilongwe, Malawi between 11 and 16 July 2005 (see Preplanning Report). The actual course was delivered on 16-21 October 2005 in Lilongwe at the Management Institute of Malawi. Waiswa Ayazika of Cadmus assisted with both the preplanning activities and delivery of the course. Rosie Chekenya of ROSCAM Consultancy of Zimbabwe also assisted in the delivery of the course on behalf of Cadmus.

Special thanks to Autman Tembo of USAID/Malawi and Todd Johnson of DAI for all the support they provided during the preparation and delivery of the course. They are a very fine team.

## General course description

**The basic course** is a 5-day (M-F) course for 25–50 participants. Typically targeted at USAID partner organizations engaged in small-scale activities, it provides an introduction to environmentally sound design with application to key sectors, and to compliance with USAID environmental review requirements (Reg 216 and associated directives). It is not intended as advanced technical training in impact assessment.

The course is centered around a set of case studies; day 3 consists of a one-day field trip in which participants conduct observation and assessment of actual or proposed project sites. Participants then write a draft IEE or environmental review based on their site visit experience. Typically more than one project site is identified for each of a few sectors (e.g., use of agrochemical inputs, small scale irrigation, agricultural micro and small enterprises, roads, etc.)

The course was originally developed by CIAM and staff of USAID's Africa Bureau. It has been given almost 30 times by CIAM staff and others since its creation in 1995. Original course development has been funded by ENCAP. Ongoing development is funded by ENCAP, USAID/ANE, and the missions and partners that have sponsored the course. As the lead provider of technical assistance under ENCAP, CIAM has provided preplanning and materials preparation services as well as a principal course trainer for the majority of the courses in the series. In ANE, the course has also been presented in Iraq, Gaza/West Bank, and Afghanistan.

A full description of the course, agenda and course materials, as well as a database of past participants, is available at <http://www.encapafrika.org> and <http://www.encapafrika.org/coursepage.htm>.

## Key attributes of the EA-ESD course

<b>Dates</b>	Monday, 16 October —Friday, 21 October 2005.
<b>Venue</b>	Malawi Institute of Management, Lilongwe, Malawi
<b>Language</b>	English
<b>Participants (list attached)</b>	30 participants attended the course. In addition, two senior USAID environmental advisors were in attendance: Tim Resch, Bureau Environment Advisor; and Camilien Saint-Cyr, Regional Environmental Advisor.
<b>Course Materials</b>	Each participant was given a Participant Source Book, Environmental Procedures Training Manual, and ENCAP CD that additionally contained current course materials and handouts.
<b>Guest Speakers</b>	Honorable Minister of the Environment Banda—opening speaker for the course E.Y. Sambo, PhD, Vice-Chairman of the National Council for the Environment— “The Role of the National Council for the Environment in the Environmental Impact Assessment

	<p>Process in Malawi”</p> <p>Tawonga Mbale of Environmental Impact Assessment division of Ministry of Environment—“Malawi’s Legal Framework for EIA: EIA as a Tool for Environmental Management”</p> <p>Camilien Saint-Cyr, USAID Regional Environmental Advisor— “USAID Pesticide procedures/ Malawi PERSUAP”</p> <p>Rosie Chekenya, ROSCAM Consultancy— “Role of Cleaner Production in reducing environmental impacts of small to medium-size development activities”</p> <p>Mary Lewellen, USAID/Malawi Mission Director—closing speaker, master of awards ceremony</p>
<b>Course funding and support, including partner contributions</b>	DAI (Development Alternatives inc.) has contracted Cadmus Group as the prime contractor for the training course. Under this contract, Cadmus provided trainers, course materials, and related services for the course. USAID/Malawi provided facilities and logistics. Cadmus covered all costs for Rosie Chekenya for training purposes.
<b>Trainers</b>	Jeff Rosenblum and Waiswa Ayazika of Cadmus Group served as co-trainers for the course with the assistance from Rosie Chekenya of ROSCAM Consultancy.
<b>Logistics</b>	Autman Tembo of USAID/Malawi provided all necessary logistics, including catering (lunches and tea breaks), accommodation, and transport to case site venues. Todd Johnson of DAI provided support.
<b>Case study sites (details attached)</b>	<p>Case Study 1— Cassava starch processing facility</p> <p>Case Study 2— New stretch of Mphangula Road</p> <p>Case Study 3— New Land-O-Lakes dairy farm</p> <p>Case Study 4— New fish ponds</p> <p>Case Study 5— Rebuilding destroyed dam for irrigation</p>

## Summary and analysis of course evaluations

30 course evaluations were received from the participants. On the question “Overall rating of the course,” participants gave an average rating of 4.5 (on a scale of lowest 1 to highest 5). Evaluation details are attached. Participants seemed particularly pleased with the hands-on, participatory, practical nature of the course including case-site visits of real examples, the diverse mix of participants from varying backgrounds, and the systematic approach taken. A common complaint is that the course was too short, and they would have liked to have more time to engage the materials further and more time for practice applying what they learned. A common suggestion was the need for a complementary course focusing on environmental auditing of active projects. ❖



## PARTICIPANT LIST

No.	NAME	INSTITUTION	FROM	Contact Details
1	Davlin Chokazinga	Deputy Chief Executive, Malawi Bureau of Standards	Blantyre	
2	Ms Connie Alezuyo	Chancellor College	Zomba	
3	Goodfriday Chikwezga	Chancellor College	Zomba	
4	Elija Kamundi	Chancellor College	Zomba	
5	Paulo Chidziwa	Save the Children	LL	
6	Francis Nkoka	CARE International	LL	
7	Amon Kabuli	I-LIFE -PMU	LL	
8	Dr Hartford Mchazime	MESA	Zomba	
9	Frank O'Brien	SALES	Blantyre	
10	Juma Masumba	SALES	Zomba	
11	Smith Likongwe	Story Workshop	Blantyre	
12	Patson Nthala	MEET	Blantyre	
13	Beyard Namale	COMPASS II	Blantyre	
14	Lyton Williams Vasulu	I-LIFE -WVI	Blantyre	
15	Duncan Warren	NASFAM	LL	
16	Gloria Kamalizeni	NASFAM	LL	
17	Dr. Gilson Njunga	LOL	LL	
18	Hilary Kamela	Lilongwe City Assembly	LL	
19	Todd Johnson	COMPASS II	BT	
20	Moses Mpezeni	COMPASS II	BT	
21	Mr. Alex Nthonyiwa	IITA SARNET	LL	
22	Mrs. Tiwonge Chazala	IITA SARNET	LL	
23	Albert Mhone	IITA SARNET	LL	
24	Zwide Jere	Chia Lagoon	LL	
25	Tawonga Mbale	EAD	LL	
26	Alex Damaliphetsa	Chia Lagoon	LL	
27	Steve Sakhama	EDO NkhotaKota	Nkhotakota	
28	Dr. Aloysious Kamperewera	Environmental Affairs Department	LL	
29	Francis Nselembo	Occupational Safety & Health	LL	
30	Yobu Mkwinda	Emmanuel International	Liwonde	
31	Joseph Hirsch	Alternate Environmental Officer	USAID/ADDIS	
32	Autman Tembo	Workshop Coordinator	LL	
33	Tim Resch	Bureau Environment Advisor	USAID/W	
34	Camilien Saint-Clr	Regional Environmental Advisor	RCSA	
35	Jeff Rosenblum	Course Facilitator	DC	
36	Waiswa Ayazika	Course Facilitator	Uganda	
37	Rosie Chekenya	ROSCAM Consultancy	Zimbabwe	
38	Chris Kaliu	Workshop Coordinator	PDA	

# AGENDA

## Environmental Assessment and Environmentally Sound Design for Small-Scale Activities • Lilongwe, Malawi • 17-21 October 2005

<b>Day/Time</b>	<b>Session Name</b>	<b>Lead Facilitator</b>
<b>Sun 16</b>		
<b>Arrival, Registration</b>		
	Out-of-City/Country Participants Arrive and Register	
18:30-19:30	Reception (Cresta Hotel)	
<b>Mon 17</b>		
<b>Basic Tools and Concepts</b>		
08:00-08:30	Registration of participants	
8:30-9:00	Opening Remarks, Honorable Minister of the Environment	
09:00-9:15	Welcome	Johnson/ Resch
9:15-10:00	1 Review of course agenda ,Participant Introductions & Expectations	Ayazika
10:00-10:15	<i>Break</i>	
10:15-11:15	2 Introduction to Environmentally Sound Design	Chekenya
11:15-12:00	3 Basic Concepts for Assessing Environmental Impacts	Chekenya
12:00-12:30	4 USAID Environmental Procedures ("Regulation 216")	Ayazika
<b>12:30-13:30</b>	<b>Lunch</b>	
13:30-14:00	4 (continued) Getting Started with the EPTM	Rosenblum
14:00-15:00	4 (continued) Practice with initial screening of activities <i>Group Exercise</i>	Rosenblum
15:00-15:15	<i>Break</i>	
15:15-15:45	5 Information Requirements and Tools for EIA	Ayazika
15:45-16:30	8 Introduction to Mitigation and Monitoring	Ayazika
<b>Tues 18</b>		
<b>Other EIA Processes, Writing the Preliminary Assessment, Field Visit Preparation</b>		
08:00-08:20	Review Previous Day's Topics	All
08:20-09:00	8 (continued) Introduction to Mitigation and Monitoring	Ayazika
09:00-10:00	7 Malawi's Legal Framework for EIA: EIA as a Tool for Environmental Management	Mbale
10:00-10:15	<i>Break</i>	
10:15-10:45	9 Writing the ERR (Environmental Review Report)	Rosenblum
10:45-11:30	9 Assessing Sample Preliminary Assessments: Pointers & Pitfalls	Rosenblum
11:30-12:30	9 Practicing with the ERR	Rosenblum
<b>12:30-13:30</b>	<b>Lunch</b>	
13:30-14:30	10 Field Trip Introduction (description of case studies); and Field Trip Briefings: Key Issues for Each Sector	Rosenblum
14:30-15:00	9 (continued) Practicing with the ERR	Rosenblum
15:00-15:15	<i>Break</i>	
15:15-16:30	10 Teams: Planning for Field Observation and Data-gathering	All

<b>Wed 19 Case Study Field Visits</b>		
08:00-16:30	All day in the field! (Packed Lunch provided)	All
<b>Thurs 20 Groups complete and present ERRs from field visits</b>		
08:00-9:00	Reactions from the Field Trip Groups	All
9:00-09:30	Review of the ERR	Rosenblum
09:00-11:00	11 Teams: Drafting Environmental Reviews for Case Studies (includes break)	All
11:00-11:45	Plenary: Presentation from each group & discussion	All
11:45-12:30	Review of Mitigation and Monitoring	Ayazika
<b>12:30-13:30</b>	<b>Lunch</b>	
13:30-15:30	1. Teams: Drafting Environmental Reviews for Case Studies (includes break)	All
15:30-16:30	11 Plenary: Presentation/Discussion of Draft Environmental Review Outlines (3 Teams)	All
<b>Friday 21 Special Topics, Evaluation and Closing</b>		
08:00-08.30	11 Reactions to the group exercise	Rosenblum
08:30-09.30	12. Beyond Preliminary Assessment: The Full <i>Environmental Assessment Study &amp; Programmatic Environmental Assessments</i>	Ayazika
9:30-10:00	13. Special Topic: USAID Pesticide procedures/ Malawi PERSUAP	Saint-Cyr
10:00-10:30	<i>Break</i>	
10:30-11:15	13. <i>continued</i> : Special Topic: USAID Pesticide procedures/ Malawi PERSUAP	Saint-Cyr
11:15-12:30	15. Synthesis, Recommendations for Follow-up Activities	All
<b>12:30-13:30</b>	<b>Lunch</b>	
13:30-14:00	15. Course Evaluation	All
14:00-14:30	Closing Remarks; Awarding of Certificates	TBA
14:30—	Facilitators Available for Individual Consultations/Questions	

## **Case Study 1— Cassava starch processing facility**

**What's the purpose?** The purpose of this exercise is to learn through experience. We are simulating an environmental review on an existing project or project under construction.

**Isn't the environmental review supposed to be done before implementing the project?** The course teaches you how to conduct reviews during design phase of a project, not after a project is completed! Therefore, think of this exercise as transporting yourself into the future where you actually get to see the project. The environmental review you are conducting is for this project before it is approved. Observations you make should take this into consideration. When you conduct environmental reviews for new projects in the future, you should consider visiting sites with similar projects to help you identify potential impacts that you are supposed to be including.

**How complete are these notes?** These case study notes are based on information that is sometimes conflicting or incomplete. Please bring corrections to the attention of the course facilitators and your group as soon as possible. These notes are not exhaustive. They are intended to be a starting point for field data collection and subsequent analysis by participants.

**Is our host for this visit going to be concerned we are trying to identify environmental problems with their project?** It is important to emphasize to our host and other employees that we are not conducting an environmental review or audit of their project. Even if government representatives and professionals are in our group, they are not there under that title and are not there to report problems. If you identify issues with the project, you do not have to identify them out loud to our host. When you ask questions, you should not be judgmental or critical.

**What of our host thinks that our visit means we are providing resources to help solve their problems?** Often, they know of their environmental issues, and know they need resources and/or expertise to help them solve their problems. This is not the case, if asked you should indicate that we are students using their facility as a case study.

### **Project summary**

One of USAID's implementing partners is planning for construction of a new cassava processing facility to be modeled after the existing Masinda processing facility. The Masinda facility is located approximately 10 km from Nkhota-kota and its located very close to the many farmers that it serves. The facility is co-owned by farmers. The joining investment into the cooperative organization is about 6000 Kwa. Cassava is brought to the facility by farmers and is washed using water pumped from Lingona stream. The pump about 2.5 litres of petrol on a daily basis. On average 1000kg of cassava is milled per day.

Process summary: (1) Cassava is washed; (2) fed into a petrol-powered crusher together with the outer-skin; (3) milled cassava is then transferred to a mixer and water is added; sieved so that unwanted products are removed; (4) sieved mixture (supernatant) is then left to settle for between 4-6 hours; (5) water on top is released into a soak pit; (6) starch is then left to harden for 5 hours; (6) starch is then taken outside and dried in the open air unless it is raining, in which it is placed into glass drying containers; (7) result is sent to a mill for grinding and packaging.

### **Background**

The District has been selected based on its level of production and utilization, industrial development, capacity for expansion and potential to stimulate economic growth and trade with potential spill over to other districts in future activities. Commercial processing is a necessary requirement for successfully intensifying and commercializing agriculture. Processing promotes

food security by reducing perishability and increasing transportability of food stuffs. High-quality processing is also necessary to successfully export agricultural products at premium prices.

The objective of the project is to increase rural incomes by supporting a value-added agro-industry and increasing agricultural exports. Starch from cassava has been identified as a competitive industry for Malawi. Although it competes with tobacco. If this plant is successful, government with USAID funding intends to construct cassava starch plants in a number of regions.

### **Malawi's Agricultural Sector**

Malawi, a country of about 10 million people, has an economy that is dependent on agriculture. Ironically the country hardly produces enough food to feed its people and is chronically food insecure for a variety of reasons. The agricultural sector in Malawi has two distinct and largely separate production systems: estate and smallholders. The majority of farm households are smallholders who normally have limited land ranging from 0.2 to 1ha and often do not have access to farm inputs. Consequently, these farm households have extremely low returns to land and labour. The trend for these households is ominous. The current average population growth rate of 3.2% is having an impact on land holding size.

The average size land holding is declining and this, coupled with continuous cultivation of the same plots and minimal conservation measures, results in soil fertility decline leading to poorer yields for most crops. Worse still, agricultural production on these lands is largely limited to one rainy season per year. Most of the production on these farms is for household consumption. With the removal of subsidies on inputs, hybrid maize production has stagnated and many subsistence farmers are beginning to diversify out of maize into other food crops. Recent observations indicate that in the absence of subsidies and escalating prices for inputs, maize production is declining.

Considering the recurrent erratic rainy seasons in most parts of Malawi, diversifying to low external input drought tolerant crops such as cassava is showing significant results on improved food security and rural incomes. Also this crop has started showing also great potential for spurring the economy forward by replacing some of the starch and wheat flour, which are imported. This project is exploiting and availing the potential for cassava to industrial consumers by linking different stakeholders through provision of information, improved technologies that is expected to sustain production and the processing of high quality products, which are on demand in the market and meet the required grades and standards.

### **General Environment Issues**

Sources of direct adverse impacts— commercial-scale agricultural processing is a type of manufacturing. These operations are often the largest users of water, energy in rural areas they are also large producers of waste water and other manufacturing waste products. These wastes have adverse impacts on community health and workers in the plants.

Sources of indirect adverse impacts— commercial-scale agricultural processing creates increased demand for a particular type of crop. This may cause changes in cultivation patterns and land use in the areas supplying the factory. Issues of concern include increased mono-cropping, soil depletion, inappropriate use of agricultural inputs, potential for increased erosion, increased dependency on a single crop etc.

Beneficial impacts— commercial agricultural processing should have beneficial impacts. Economically, it can create a more reliable and larger-volume market for farm products. Processors may invest in rural infrastructure improvements, such as roads. Processors may introduce improved agricultural technologies as a way to increase quality of their feedstock. These technologies may increase the productivity and sustainability of local agricultural practices.

An environmental review of the proposed project requires evaluation of the baseline situation in the area, and an evaluation of how the proposed project would affect this baseline. The environmental baseline situation is defined here as a profile of the past, current and future environmental conditions in the proposed project area, and the reasonably foreseeable impacts of not supporting this project, or of suggesting some other project.

Environmental issues of possible concern include effects on land, water, air, energy resources, ecological systems and human health.

### **Assignment for your team**

Your group will visit the Masinda cassava processing facility. Participants will conduct an environmental review of a hypothetical project in Nkhota-kota. You will have an opportunity to talk to the factory manager and other employees and possibly farmers. Following the visit to the factory, your team will tour the surroundings to see the type of landscape to help in assessing the potential effects of increased cassava production.

The following are key elements you should be looking at: (1) Obtain basic environmental and social information regarding (a) the immediate physical and social environment of the factory and (b) the physical and social environment of the area that supplies the factory. (2) Understand the basic steps of the production process and particularly the major inputs required by the production process. (3) the disposal of wastes. (4) exposure of workers to waste, inputs and processes (if at all applicable).

Your team will identify the various activities associated with design, construction and management of hospitals, including from the supply of construction materials, water and energy and disposal of medical wastes, human waste and solid waste.

Think ahead! Gather all the information you will need in order to be able to complete the ERR. The key components of the ERR are: project background, site activities, potential environmental impacts, mitigation measures, and monitoring.

While conducting the site visit, you should consider mitigation measures to address the specific environmental impacts identified by the team, including direct and indirect impacts. Based on your understanding of the system in which this project operates, what types of monitoring systems could be implemented to ensure that mitigation measures are implemented correctly and continue to function over time?



## Case Study 2— New stretch of Mphangula Road

**What's the purpose?** The purpose of this exercise is to learn through experience. We are stimulating an environmental review of an ongoing project or project under construction

**Isn't the environmental review supposed to be done before implementing the project?** The course teaches you how to conduct reviews during design phase of a project, not after a project is completed! Therefore, think of this exercise as transporting yourself into the future where you actually get to see the project. The environmental review you are conducting is for this project before it is approved. Observations you make should take this into consideration. When you conduct environmental reviews for new projects in the future, you should consider visiting sites with similar projects to help you identify potential impacts that you are supposed to be including.

**How complete are these notes?** These case study notes are based on information that is sometimes conflicting or incomplete. Please bring corrections to the attention of the course facilitators and your group as soon as possible. These notes are not exhaustive. They are intended to be a starting point for field data collection and subsequent analysis by participants.

**Is our host for this visit going to be concerned we are trying to identify environmental problems with their project?** It is important to emphasize to our host and other employees that we are not conducting an environmental review or audit of their project. Even if government representatives and professionals are in our group, they are not there under that title and are not there to report problems. If you identify issues with the project, you do not have to identify them out loud to our host. When you ask questions, you should not be judgmental or critical.

**What of our host thinks that our visit means we are providing resources to help solve their problems?** Often, they know of their environmental issues, and know they need resources and/or expertise to help them solve their problems. This is not the case, if asked you should indicate that we are students using their facility as a case study.

### Project Summary

The Project activity involves the construction of a 6.6km new stretch of the Mphangula Road, located approximately 30 km from Lilongwe. The project will be modeled after the Double-Vision/ Mphangula project which is currently under construction. The project is expected to benefit 360 families. Currently 492 households are employed on the project. The individuals who are employed on the project, work for 4 hours a day for five days and are paid 50kg of cornmill and 5 kg of beans at the end of the month. The project activities are anticipated to take four months. The objective of the project is to improve access to Nathenje where there are schools, hospitals, depot to LL, Markets; Improve access to schools like Chilembwe, Mphangula and one at TA Mazengera; Road to Nkhoma and Matapila trading centers; Improve access to maize mill at Mzingwa; Road to TA Mazengera head quarters.

Furthermore, the project is to lead to the construction of Kadziyenerere earth dam whose main objective is to improve water conservation activities through: Creating an irrigation scheme through gravity flow to the lower stream side and pressurized for upper stream; Providing water for domestic use; Introducing fish activities where possible. It is also expected that the earth dam will enable the crossing for the double vision-Mphangula road at Kadziyenerere stream which was once impassable.

## **Background**

The Malawian economy has primarily depended on its agricultural sector. Agriculture is responsible for 37% of the Gross Domestic Product (GDP) and accounts for 85% of export earnings. Over 80% of Malawians depend directly or indirectly on the agricultural sector and its related industries. This long-term dependence has, in the last decade, been challenged by adverse climatic conditions. As a result, the country's food security has been negatively affected, leaving the majority of its population incapable of providing for their households. Food scarcity has also meant that most rural households have lost a source of income previously realized from the monetization of surplus crops. The challenges of securing food have been worsened by the HIV/AIDS epidemic that has resulted in the loss of breadwinners and labor resources in many households.

Malawi has suffered long-term food deficits going as far back as the drought of 1991/1992. In the recent past, other factors such as the erratic rainfall, the decline in the standard and quality of life, and the HIV/AIDS epidemic have accelerated the country's situation into an emergency.

As a means of survival, many rural households sold off their livestock and many of their productive assets at prices below the normal market rates. Subsequently, the majority of the households did not have the resources to prepare for the following crop seasons. The Government of Malawi also sold off its strategic grain reserves, helping to precipitate the food crisis. The sale of the government reserves caused dramatic increases in the price of maize seed and placed the commodity out of reach of the majority of rural households.

Sustainable change to the current situation will not be achieved with provisioning for the rural poor only, but with interventions that will improve food production and recovery and crisis prevention capacity in these communities. The Consortium I-LIFE is aimed at reducing food insecurity of vulnerable households and communities in rural Malawi by achieving three interconnected strategic components: Protecting and enhancing livelihood capacities of vulnerable rural groups through activities aimed at increasing agricultural production and incomes and improving infrastructure through food for work; Protecting and enhancing the nutritional status of vulnerable groups through improved nutrition practice, community health awareness campaigns focusing on HIV/AIDS, vegetable gardening, and improved capacity to deliver quality health services; and Improving community and district institutional capacity to protect and enhance food security through coalition building, community organization, enhanced civil society capacity, and workable applications of decentralization.

## **General Environment Issues**

### **Activities associated with feeder road rehabilitation:**

**Sources of direct adverse impact:** Limited road widening typically involving cut and fill on sides. Potential environmental impacts include loss of vegetation and increased soil erosion and minor failures of cuts until stabilized with vegetation; Clearing of right of way. Potential environmental impacts include loss of arable land, loss of vegetation and possible soil erosion during and immediately after construction; Drainage improvements such as road side ditches and cross drainage culverts. Potential environmental impacts include concentration of flow causing gully formation and erosion at culvert outfalls; Improved road surface material (gravel) and grading in some locations. Potential environmental impacts include water ponding in abandoned borrow pits and disturbance to cultivated fields and homesteads due to gravel excavations creating breeding grounds for mosquitoes.

**Sources of indirect adverse impacts** – After improvements are completed, the inevitable increase of traffic on the community roads will likely result in dust, noise and possibly traffic accidents. In addition, road rehabilitation can result in increased population concentration along the road.

## Construction of earth dam

**Sources of direct adverse impacts-** Construction of weirs and dams. Potential environmental impacts include possible transmission of waterborne diseases and destruction and or impairment of wetlands; River diversions. Potential environmental impacts include alteration in aquatic ecology, including fisheries; Land leveling. Potential environmental impacts include effects on downstream water flow that could lead to water use conflicts; Soil and water conservation. Potential environmental impacts, including soil erosion, may occur as a result of improper or incomplete structures, such as bunding or terracing; Reforestation. Potential environmental impacts include inadvertent shifts in land use patterns, destruction of natural secondary forest for reforestation with exotic species.

## Assignment for your team

Your team will visit the sites for the existing road construction and where the earth dam is being constructed along with associated irrigation activities. Participants will conduct an environmental review of a similar hypothetical project. The road is already under construction and some irrigation activities have already started. The group will visit the sites for the activities approximately 40 minutes drive from Lilongwe. They will have an opportunity to talk to the road supervisors and other employees and possibly farmers.

Participants will be taken around the area for the project activities. It is hoped that at the time of the visit, people will be found at work so as to obtain an understanding of the working conditions and the concerns of the communities.

Think ahead! Gather all the information you will need in order to be able to complete the ERR. The key components of the ERR are: project background, site activities, potential environmental impacts, mitigation measures, and monitoring.





### **Case Study 3— New Land-O-Lakes dairy farm**

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### **Project Summary**

Land-O-Lakes is planning for the construction of a dairy farm modeled after the existing one located about 50 km outside of Lilongwe. Your team has been engaged by the company to conduct an environmental review of the proposed project. The purpose of the case study is to provide background in preparing an Environmental Review Report for the construction and operation of the dairy farm.

Since 1999, the US-based dairy cooperative "Land O' Lakes" has been active in Malawi to revive the small farmer dairy industry. The program especially works with farmers with no experience in dairy farming, therefore training and support is extensive. Farmers learn how to grow and prepare livestock feed using local plants, such as grasses and peanut hulls. They are advised how to build sheds for the cows and for grain storage. Business support skills are also provided. The local group of about 75 farmers shares the use of a cooling center, where a cooled and sterile tank is available for milk storage—the tank is located no more than 8km away from each farmer. The farmers earn about US\$600 per year on the sale of the milk. Over half of the farmers are women.

The team will use the existing dairy farm as a case study to identify environmental and social impacts associated with the existing facility and to identify practical strategies for mitigating adverse impacts and for monitoring.

The Environmental review exercise includes an examination of bio-physical and socio-economic impacts associated with activities during each project phase: planning and design, construction,

operation and maintenance, and abandonment/decommissioning. Secondary and cumulative impacts will also need to be addressed.

### **General Environmental Issues**

Currently a scheme for using acaricides by the farmers to control ticks on the cows. A special applicator is used for the pour-on acaricides to ensure calibration of the quantity acaricides applied based on the body weight of the animal. Field reports indicate that the acaricides have been very effective in the control of ticks. With the consistent use of the same acaricide, ticks might become resistant. Therefore, alternating the type of acaricide used is necessary. Some acaricides, such as "Pouricide"<sup>TM</sup> are also toxic to bees, other insects, fish, and wildlife.

An environmental review of the proposed project requires evaluation of the baseline situation in the area, and an evaluation of how the proposed project would affect this baseline. The environmental baseline situation is defined here as a profile of the past, current and future environmental conditions in the proposed project area, and the reasonably foreseeable impacts of not supporting this project, or of suggesting some other project. Environmental issues of possible concern include effects on land, water, air, energy resources, ecological systems and human health.

### **Assignment for your team**

You will visit the existing Land-O-Lakes facility to assist you in conducting an environmental review of a proposed new facility with similar characteristics. You will have an opportunity to talk to managers and other employees.

Think ahead! Gather all the information you will need in order to be able to complete the ERR. The key components of the ERR are: project background, site activities, potential environmental impacts, mitigation measures, and monitoring.



## **Case Study 4— New fish ponds**

**What's the purpose?** The purpose of this exercise is to learn through experience. We are simulating an environmental review on an existing project or project under construction.

**Isn't the environmental review supposed to be done before implementing the project?** The course teaches you how to conduct reviews during design phase of a project, not after a project is completed! Therefore, think of this exercise as transporting yourself into the future where you actually get to see the project. The environmental review you are conducting is for this project before it is approved. Observations you make should take this into consideration. When you conduct environmental reviews for new projects in the future, you should consider visiting sites with similar projects to help you identify potential impacts that you are supposed to be including.

**How complete are these notes?** These case study notes are based on information that is sometimes conflicting or incomplete. Please bring corrections to the attention of the course facilitators and your group as soon as possible. These notes are not exhaustive. They are intended to be a starting point for field data collection and subsequent analysis by participants.

**Is our host for this visit going to be concerned we are trying to identify environmental problems with their project?** It is important to emphasize to our host and other employees that we are not conducting an environmental review or audit of their project. Even if government representatives and professionals are in our group, they are not there under that title and are not there to report problems. If you identify issues with the project, you do not have to identify them out loud to our host. When you ask questions, you should not be judgmental or critical.

**What of our host thinks that our visit means we are providing resources to help solve their problems?** Often, they know of their environmental issues, and know they need resources and/or expertise to help them solve their problems. This is not the case, if asked you should indicate that we are students using their facility as a case study.

## **Project Summary**

USAID has funded the construction of fish ponds in the Chia Lagoon region of central Malawi. The project is modeled after existing fish ponds that are located within Mpikawachauta river. This project is being undertaken to improve on rural household incomes. In the creation of the ponds, water has been diverted from the river and dammed into the fish ponds. The purpose of the case study is to provide background in preparing an Environmental Review Report for the construction and operation of similar fish ponds.

The Environmental review exercise includes an examination of bio-physical and socio-economic impacts associated with activities during each project phase: planning and design, construction, operation and maintenance, and abandonment/decommissioning. Secondary and cumulative impacts will also need to be addressed.

## **Background**

Chia Lagoon Watershed covers a total area of 989 km<sup>2</sup>, of which 611 km<sup>2</sup> forms the project area, encompassing parts of Nkhotakota and Ntchisi Districts in Central Malawi. The watershed has vast natural resources vital to the livelihoods of its 55,000 human inhabitants. Over the past 20 years, the watershed has experienced escalating rates of environmental degradation due mainly to the following factors: deforestation, soil erosion, siltation in rivers and lakes, harmful bush fires, declining fish populations in the lakes, rivers and lagoons from over fishing, and poaching and encroachment in Dwambazi Forest and Nkhotakota Wildlife Reserves.

Fisheries sector as a social, cultural, economic and nutritive resource: The communities in this area have relied on fish caught from the lake but with the decreasing levels, there is need to start aquaculture. Fish is an important activity, as it is important in the local diets, it is traded in local markets and regional markets. Fish is the main source of protein in the diets of people in this particular area. However, fisheries for subsistence have been declining due to increasing population leading to over-exploitation, silting due to clearing swamps, important breeding areas for fish.

### **General Environmental Issues**

The community has expressed concerns involving the degradation of natural resources from poor land-use practices which have led to: declining agricultural productivity and food insecurity, decreasing incomes to meet basic household needs, acute shortages of wood for energy and building needs, sedimentation of the lagoon with dropping fish catches, declining biodiversity of the lagoon's aquatic and terrestrial resources , increasing dependence on external assistance in times of drought.

An environmental review of the proposed project requires evaluation of the baseline situation in the area, and an evaluation of how the proposed project would affect this baseline. The environmental baseline situation is defined here as a profile of the past, current and future environmental conditions in the proposed project area, and the reasonably foreseeable impacts of not supporting this project, or of suggesting some other project. Environmental issues of possible concern include effects on land, water, air, energy resources, ecological systems and human health.

### **Assignment for your team**

You will visit the existing fish ponds to assist you in conducting an environmental review of a proposed construction of new fish ponds with similar characteristics to the ones you are visiting. You will have an opportunity to talk to managers and other community members.

Think ahead! Gather all the information you will need in order to be able to complete the ERR. The key components of the ERR are: project background, site activities, potential environmental impacts, mitigation measures, and monitoring.



## **Case Study 5— Rebuilding destroyed dam for irrigation**

**What's the purpose?** The purpose of this exercise is to learn through experience. We are simulating an environmental review on an existing project or project under construction.

**Isn't the environmental review supposed to be done before implementing the project?** The course teaches you how to conduct reviews during design phase of a project, not after a project is completed! Therefore, think of this exercise as transporting yourself into the future where you actually get to see the project. The environmental review you are conducting is for this project before it is approved. Observations you make should take this into consideration. When you conduct environmental reviews for new projects in the future, you should consider visiting sites with similar projects to help you identify potential impacts that you are supposed to be including.

**How complete are these notes?** These case study notes are based on information that is sometimes conflicting or incomplete. Please bring corrections to the attention of the course facilitators and your group as soon as possible. These notes are not exhaustive. They are intended to be a starting point for field data collection and subsequent analysis by participants.

**Is our host for this visit going to be concerned we are trying to identify environmental problems with their project?** It is important to emphasize to our host and other employees that we are not conducting an environmental review or audit of their project. Even if government representatives and professionals are in our group, they are not there under that title and are not there to report problems. If you identify issues with the project, you do not have to identify them out loud to our host. When you ask questions, you should not be judgmental or critical.

**What of our host thinks that our visit means we are providing resources to help solve their problems?** Often, they know of their environmental issues, and know they need resources and/or expertise to help them solve their problems. This is not the case, if asked you should indicate that we are students using their facility as a case study.

### **Project Summary**

USAID has funded the reconstruction of a previously flooded and destroyed dam in the Chia Lagoon region of central Malawi. This project is being undertaken to improve farming in the area. The purpose of the case study is to provide background in preparing an Environmental Review Report for the reconstruction of this dam.

The Environmental review exercise includes an examination of bio-physical and socio-economic impacts associated with activities during each project phase: planning and design, construction, operation and maintenance, and abandonment/decommissioning. Secondary and cumulative impacts will also need to be addressed.

### **Background**

Chia Lagoon Watershed covers a total area of 989 km<sup>2</sup>, of which 611 km<sup>2</sup> forms the project area, encompassing parts of Nkhotakota and Ntchisi Districts in Central Malawi. The watershed has vast natural resources vital to the livelihoods of its 55,000 human inhabitants. Over the past 20 years, the watershed has experienced escalating rates of environmental degradation due mainly to the following factors: deforestation, soil erosion, siltation in rivers and lakes, harmful bush fires, declining fish populations in the lakes, rivers and lagoons from over fishing, and poaching and encroachment in Dwambazi Forest and Nkhotakota Wildlife Reserves.

Fisheries sector as a social, cultural, economic and nutritive resource: The communities in this area have relied on fish caught from the lake but with the decreasing levels, there is need to start aquaculture. Fish is an important activity, as it is important in the local diets, it is traded in local markets and regional markets. Fish is the main source of protein in the diets of people in this particular area. However, fisheries for subsistence have been declining due to increasing population leading to over-exploitation, silting due to clearing swamps, important breeding areas for fish.

### **General Environmental Issues**

The community has expressed concerns involving the degradation of natural resources from poor land-use practices which have led to: declining agricultural productivity and food insecurity, decreasing incomes to meet basic household needs, acute shortages of wood for energy and building needs, sedimentation of the lagoon with dropping fish catches, declining biodiversity of the lagoon's aquatic and terrestrial resources, increasing dependence on external assistance in times of drought.

An environmental review of the proposed project requires evaluation of the baseline situation in the area, and an evaluation of how the proposed project would affect this baseline. The environmental baseline situation is defined here as a profile of the past, current and future environmental conditions in the proposed project area, and the reasonably foreseeable impacts of not supporting this project, or of suggesting some other project. Environmental issues of possible concern include effects on land, water, air, energy resources, ecological systems and human health.

### **Assignment for your team**

You will visit the site of the dam and the surrounding farms and irrigation facilities to assist you in conducting an environmental review of a proposed reconstruction of the dam. You will have an opportunity to talk to managers and other community members.

Think ahead! Gather all the information you will need in order to be able to complete the ERR. The key components of the ERR are: project background, site activities, potential environmental impacts, mitigation measures, and monitoring.





## EVALUATION COMMENTS

### Environmental Assessment and Environmentally Sound Design

17-21 October 2005 Lilongwe, Malawi

What were the three most valuable lessons you learned from the course?

- Environmental assessment is not an enemy to development; process of doing ERR; need more awareness on environment to communities and public;
- Preparation of ERR and the screening process; the issue of pesticides; the issue of Reg. 216;
- ESD; writing ERR; field practical of identifying impacts;
- Environmental sound design; concepts for assessing environmental impacts; USAID environmental procedures;
- How to write ERR and the steps followed in ERR process; Information requirements and tools for EIA; environmentally sound design;
- How to fulfill USAID Reg. 216 through ERR; How project issue/activities can impact on the environment;
- The EIA-in relation to USAID; furthermore the relationship/similarity of the USAID EIA to our Malawian guidelines; the importance of considering the EA in designing projects and development of Environmental Management Plans;
- Identifying and evaluating impacts; impact mitigation and tools;
- The importance of including environmental issues at design stage; importance of monitoring to check if mitigation measures at work; need to consult and collaborate with various stakeholders;
- EIA process; putting EIA into practice; USAID format for EIA;
- How to screen projects; objectivity when carrying out EIA; mitigation and monitoring techniques;
- That we are supposed to include environmental assessment in our projects; screening is one the important stages in ERR; ERR to be done during project design;
- Application of Reg216 and interfacing of the system with national process on assessment;
- There are a number of projects that have been implemented without consideration on the impact they will have on the environment; no matter how noble or small an activity might be, it is important to look at the environmental issues surrounding it; environmental reviews/assessment should be integrated into program/project design for sustainable resource utilization;
- Power to do an ERR; perspectives of implementing partners and local community; where to find more resources;
- USAID perspective; process of doing an ERR; understanding IEE;
- Field visit with application through group exercise; ERR presentation-its significance in ensuring that projects are sensitive to environmental impacts; applying simple methods, using simple, measurable, cost effective indicators for measuring impacts;
- Importance of EIA; basic concepts for assessing EIA; tools for screening;
- That small scale project have impacts with cumulative effects and therefore need to be monitored; the importance of including environmental consideration into project design and budget; the need for mitigation strategies that are low-cost/appropriate and practical for the community;
- EIA is not an optional extra in implementing projects; it pays to design and implement a project which is environmentally sound working on adverse impacts;
- The need to do site visits when designing a project; the need to identify impacts and their mitigations relating to projects being designed; the type of information that USAID would like to see in a project proposal;
- How USAID requirements apply to small scale projects as far as environmental issues are concerned; developing warning measures and indicators that are low cost & most practical in community projects;
- Identification of impacts; ERR; mitigation and monitoring plan development;
- The need for EIA at concept stage; how to assess impact;
- The importance and value of conducting the EAs; the relevance and practical approaches;
- Environmental design and component of project design prevention cheaper, better than mitigation;

- The need for careful (environmental conscious) design before project commences; the strict sense of USAID's regulations; interaction among participants (and also facilitation);
- The negative environmental impacts of good will projects; effects of chemicals in human life (Bangladesh example); good time keeping;
- ERR process; EIA rules and regulations; PERSUAP details;
- Need to comply with EIA in any project done; need to comply with cleaner production; need to comply with Reg.216 in the use of pesticides;

What did you like MOST about the course?

- EMP;
- Field work;
- The friendly interactive environment set by the facilitators;
- The course content and presentation style especially by the lead facilitator; The commitment from the MEO was stimulating;
- Diversity of the group; meeting some of the participants;
- practical session was excellent giving the appropriate approaches; visuals were used well;
- interactions;
- the practical site visits and lessons learnt through those;
- the group discussions and hands on practical experience;
- the mix of participants from different backgrounds/professions;
- the course material and presentation/and of course the mixtures of various professions/projects in regards for the course participants;
- the field trip/case study (it brought all aspects so clearly);
- interaction processes and the site visits;
- the practical way it was handled and the relevance of the materials presented to my work;
- gaining an understanding of the various requirements;
- Jeff was great. So was Waiswa and so was Rosie;
- Field visit and group discussion on the observations from the field. This gave a better insight on the classroom theories;
- Systematic approach to environmental examination and assessments;
- It has been participatory and included participants from a wide range of organizations and institutions;
- Interaction between facilitators and participants; facilitators were very friendly and were eager to impart knowledge and skills in the participants; I also like the quality of materials for the course;
- ERR field visit and presentation; course materials;
- The free atmosphere where everyone felt free to express themselves and request for more information where there was need;
- Focused mainly on real case studies that really applied to the actual true situation in Malawi;
- The field visit made me/us to understand much better of the content learnt. In other words the participation of members in practically analyzing the situation;
- How do write the ERR (process, tools and outputs); multidisciplinary nature of the participants;
- Field trip and feedback from different groups (presentations);
- Field visits and the relation to the whole course;
- Process of ERR;
- The practical aspects of the course. It was more practical than theoretical;
- ERR & EIA process;
- 

What could have been improved in the course?

- More discussions and more time for discussions i.e. participants given chance to discuss on topical issues, with Malawi case studies;
- Photocopied powerpoint;
- Preparation and time allocated for field trips;

- Extend the course period to do topics in details; slow process of good serving could be improved; residential for all participants would improve flexibility on time and cohesion among participants;
- A large manufacturing firm with a high polluting potential could have been included in the site visit;
- Need more time. May be two weeks;
- Extra time for the field visit i.e. two days;
- Participants given a chance to write full ERR and EIA reports;
- More time for practicing the writing of the ERR with specific case studies within and outside Malawi;
- The course is just very good but sometimes participants seemed dozing because of the one way of presentation;
- Allocating more time to site visits for case studies; selecting sites that are in the initial implementing stages that the ones that are in the final phases;
- Some case studies within Malawi where EIA was successful could have been reviewed;
- Presentation; facilitators should assume the role of offering guidance rather than teaching. They should present introductory ideas and put an exercise for participants consolidation of concepts;
- The flow of presentation especially during the first day. There were some repetitions on material presented and this was confusing. For example screening procedures appeared 5 times on a single day; again there should be enough time for question and answer. This could help to clarify points which are difficult to understand;
- No idea because I have liked the whole course and its contents. I have learnt a lot and this will make me more efficient. I didn't know that ERR is very important;
- Include more participants from culprit ministries;
- Give more time to practical sessions for the ERR;
- More information on the IEE;
- 5 full days is too long;
- Time which was not adequate;
- Course materials could have been given as the day of arrival;
- Involving a guest speaker who has been invited on a project that underwent an EIA;
- Course could have been larger-there was a lot of material to be covered in a short time (period);
- Time and more field trips;
- More time should have been allocated for question and answer sessions; there should be more focus-training was general (and this is not a bad idea) and suitable for an introductory module. More detailed training would be more useful for those projects that would be categorized as operating in the "medium to high risk/risk unknown activity arena;
- More USAID staff participation;
- Proper vehicles during field visits especially for long distances. Otherwise, everything was excellent;
- 

Please provide any other comments you might have:

- This course was worth the time. It will definitely improve my work;
- A complementary course should be implemented on conducting environmental audits. This will help on monitoring and checking on internal compliance;
- Use competent facilitators to impart the knowledge satisfactorily;
- The course was good in establishing a network of people working on similar projects. Through the course-participants will be able to interact and share information;
- The involvement of at least two participants (not facilitators) who are working with other USAID projects located/based in other African countries;
- Consider involving/planning a similar training course for the private sector- (banks/processors/factories);
- Timing is very appropriate since we are integrating environmental issues into all activities; it was useful at both institutional and personal levels; in the evaluation, you could have made allowance for 'very good' instead of 'good';
- I think the course should be a little longer- 10 days;

- Congrats to all facilitators for a job well done; there is need for USAID to update us on new developments regarding ESD approaches, methodologies etc;
- Thanks;
- The course was good and came at an opportune time when various agencies are thinking of implementing a number of small scale irrigation projects and to curb food insecurity; the course was well organized in the sense that there was an involvement of government and private sector;
- This would be like it was organized annually as many experts would benefit;
- Thank you for including Miss Mbale and Dr. Sambo who have helped us on the real Malawi situation; I have in mind two of our projects that I hope to do ( a small) ERR just to test my capabilities. Are you available for guidance electronically?
- Time of training workshop is too short. It is a matter of cutting costs, consider accommodating Malawians in cheaper hotels or even local rest houses, given a little money for meals etc.
- Generally more relevant training course with field activities of Malawian origin. However, it would have been more appropriate to include visits to activities which are under design/construction to make EIA practices more appropriate and challenging;
- The course was very informative and provide a good basis for incorporating environmental issues in project design and implementation;
- The course is of great importance and if chances are available it should also be conducted again for other stakeholders;
- NA;
- Seen to be good approach as far environment is concerned;
- Further training and audits should be done;
- You should have included a number of government institutions like Ministry of Health, Education and Agriculture;
- Other additional/community courses should involve the same participants for continuity; evaluating list should be compiled for the participants to update each other on environmental issues;
- I appreciate the EIA as a requirement by USAID; but I strongly believe that minimum standards for third world countries should be considered; otherwise good projects risk the chance of being penalized because of other environmental obligations beyond the implementers control. It would have also been better if this important exercise was feature on local TV for publicity purposes;
- Keep up the good work;
- It has been wonderful week. Follow-up training needed, at least an additional to topical issues in EIA, there is need for EA (environmental audit); participants should be given deadline to submit IEE & ERR to USAID mission for the projects they are designing now to find out whether the lessons have sunk in;

-

**FOR IMMEDIATE RELEASE**

17 October 2005

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## PRESS RELEASE

### HON. MINISTER BANDA OPENS USAID ENVIRONMENTAL ASSESSMENT TRAINING

**LILONGWE**—The Minister of Mines, Natural Resources and Environmental Affairs, Honorable Chimunthu Banda and the Acting Mission Director for the United States Agency for International Development (USAID) will this morning launch a five-day training workshop on "Environmental Assessment and Environmentally Sound Design for Small-Scale Activities." The ceremony will take place at the Malawi Institute of Management (MIM) at 8:30 a.m.

USAID is sponsoring the course under its Environmental Capacity Building Program (ENCAP) of USAID Washington, through its Africa Bureau, and the Community Partnerships for Sustainable Resource Management in Malawi (COMPASS II) project. Malawi is the 30<sup>th</sup> country to undergo such training over the past decade.

The purpose of the training course, facilitated by The Cadmus Group of Boston, USA, is to promote the incorporation of sound environmental management principles into the design and implementation of activities and programs sponsored by USAID throughout Africa.

Selected participants from organizations implementing various USAID projects in Malawi, as well as Ministry of Natural Resources and Environmental Affairs and Government institutions such as the Malawi Bureau of Standards and Chancellor College, are being joined by representatives of USAID Africa Bureau, and regional offices for eastern and southern Africa.

During the week, the course participants will also learn about the legislative and regulatory requirements for environmental impact reviews of development activities. The Department of Environmental Affairs is providing three experts, to ensure that the course content matches the Malawi context, including identifying which kinds of projects must undergo EIA and which may require other types of environmental review.

By the end of the week, through both classroom coursework and field-based case studies, participants will know how to incorporate environmental considerations into the design, to conduct environmental reviews and to prepare required environmental documentation.

Those interested in learning more about the course are encouraged to view details at [www.encafrica.org](http://www.encafrica.org).

# MALAWI'S PREMIER DAILY **The Daily Times**

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For News You Can Trust

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K45

## 2 BUSINESS

# Environment damage threatens growth

BY MARCUS MUHARIWA

**E**NVIRONMENTAL degradation and non-compliance with impact assessments by companies is retarding growth and worsening poverty, Minister of Mines and Natural Resources has said.

Henry Chimunthu Banda was speaking on Monday in Lilongwe at an environment workshop funded by the United States Agency for International Development (Usaid).

He said some developers are implementing projects without conforming to environmental impact assessment (IEA), a sign they do not appreciate the role the environment plays in bringing sustainable development and growth.

Chimunthu Banda said Malawi's economic growth depends on natural capital and without environmental considerations this capital would be eroded.

"Without economic growth, there will be no increase in tax revenues to support improved public services. Without growth and services, there will be no increase in wealth and reduction of poverty," he said.

Wanton cutting down of trees for charcoal and

construction could fail the country in attaining a key pillar in the Millennium Development Goals (MDGs).

Goal number seven of the MDGs states that by 2015 countries should ensure that there is environmental sustainability and target number nine of this goal says principles of sustainable development should be integrated into country policies and programmes and reverse the loss of environmental resources.

Chimunthu Banda said nine years after the enactment of the Environmental Management Act, it was only prudent that sound environment management principles be applied to guide implementation of development activities.

He said environment is the main pillar of sustainable development and needed to be treated as a factor of production.

Chimunthu warned that companies and organisations that implement projects without complying with existing environmental assessment laws and regulations would be penalised under the Environmental Management Act.

Some organisations and companies that have not



**BANDA—Economy built around environment**

complied with EIA have been fined up to more than K200,000 and others have had their projects suspended since the enactment of the Act 1996.

In an interview Mary Lewellen, acting mission director for the Usaid said all project and program implementers must follow

EIA, as it is obvious that the environment suffers when they are working.

She said it is important that Usaid and Malawi government should continue efforts currently being made to ensure that EIA is adhered to and the environment is protected.



**The Role of the  
National Council for the  
Environment in the  
Environmental Impact  
Assessment Process in Malawi**

by

E.Y. Sambo, PhD  
Vice-Chairman of the NCE  
MIM, October 17-21, 2005

**NCE's Establishment**

- NCE was established by the Environmental Management Act No. 23 of 1996, Part III Sections 10-15.
- The NCE held its first meeting at Lilongwe Hotel on 17th January 1997, with the initial membership of 36

**Functions of NCE..(1)**

- Advise the Minister on all matters and issues affecting the protection and management of the environment and the conservation and sustainable utilization of natural resources

**Functions of NCE..(2)**

- Recommend to the Minister measures necessary for the integration of environmental considerations in all aspects of economic planning and development

**Functions of NCE..(3)**

- Recommend to the Minister measures necessary for the harmonization of activities, plans and policies of lead agencies and non-governmental organizations concerned with the protection and management of the environment and the conservation and sustainable utilisation of natural resources

**TCE's Establishment**

- TCE) was established through the EMA, Part III Sections 16-18, with a membership of 20 as approve by NCE on 6th May 1997.
- Its first full meeting was held on 11th June 1997

### Functions of TCE...(1)

- Examine any scientific issue which may be referred to it by the Minister, the Council, the Director or any lead agency relating to the protection and management of the environment and sustainable utilization of natural resources and shall recommend to the Minister, the Council or lead agency, as the case may be, such action as is necessary for achieving the purposes on this Act

### Functions of TCE...(2)

- Carry out investigations and conduct studies into the scientific, social and economic aspects of any activity, occurrence, product or substance which may be referred to the Minister, the Council, the Director or any lead agency and shall, at the completion of the investigation or study, recommend to the Minister, the Council or lead agency, as the case may be, such action as is necessary for achieving the objectives of this Act

### Functions of TCE...(3)

- Recommend to the Council the criteria, standards and guidelines for environmental control and regulation, including the form and content of environmental impact assessments

### Environmental Impact Assessment (EIA)...1

- Part V of the EMA Sections 24-29 established the practice of Environmental Impact Assessment (EIA) Audit and Monitoring.
- EIA is the systematic evaluation of a project to determine its impact on the environment and natural resources and is based on terms-of-reference prepared by the developer and approved by the Director

### EIA ....2

- An EIA can be compared to a market survey which any prospective business entrepreneur conducts prior to the establishment of his/her business endeavour.
- Such a market survey looks at, among other things, the ideal location for the business, the labour force, the expertise, choice of technology, the expected profits and what factors to include or eliminate in order to get the maximum profits

### EIA...3

- EIA is a process comprising of several stages and is mainly aimed at predicting the impacts which a development project, programme or policy would have on the environment;
- it provides mitigatory measures for the negative impacts and enhances the positive impacts.
- The process allows for public involvement in decision making and is thus used as a planning tool and in decision making to ensure sustainable development.
- An EIA is not intended in any way to stop any investment programme or project as some people think

## EIA and NEAP

- In 1994, the Malawi Government adopted the National Environmental Action Plan (NEAP) which has been revised in 2002.
- The NEAP identified nine major environmental problems.
- To address these, use is made of the EIA process.
- The responsibility for managing the EIA has been given to the Environmental Affairs Department (EAD) as stipulated in the EMA Sections 24-28, hence to NCE

## EAI Guidelines

- The EMA Section 25(1) further provides that the Minister will publish EIA guidelines which will guide the EIA process in the country.
- The Act also provides for the publication of a list of projects and programmes for which EIA will be mandatory (EMA Section 24(1)).
- Existing projects will be expected to conduct Environmental Audits to ensure compliance with provisions of the Act (Section 27)

## EIA and NEAP....cont'd

- The Malawi economy is agro-based and this has led serious environmental degradation as stipulated in the NEAP.
- It is necessary to slow down and where possible reverse the environmental degradation.
- EIA is the only process which, if effectively implemented, will ensure that the people utilize the country's rich natural resources and at the same time conserve and protect the environment

## NEAP and EIA...cont'd

- EIA is a new phenomenon and many people are only now becoming familiar with it;
- In addition, different countries and donor agencies follow different EIA procedures.
- For Malawi, the EIA process is contained in the Administrative Guidelines for EIA (1997) published by the EAD

## Supporting documents to the EIA Process...1

- Environmental Impact Assessment Guidelines for Waste Management Projects (2002)
- Environmental Impact Assessment Guidelines for Irrigation and Drainage Projects (2002)
- Environmental Impact Assessment Guidelines for Sanitation Projects (2002)
- Environmental Impact Assessment Guidelines for Mining Projects (2002)

## Supporting documents to the EIA Process...2

- Guidelines for Environmental Management System and Environmental Auditing for Waste Management Operations (February 2002)
- Guidelines for Environmental Management System and Environmental Auditing for Mining Operations (February 2002)
- Guidelines for Environmental Management System and Environmental Auditing for Sanitation Operations (February 2002)
- Guidelines for Environmental Management System and Environmental Auditing for Irrigation and Drainage Operations (February 2002)

## The Malawi EIA process is in two stages...1

Stage one: submission of a project brief and its approval by the EAD

- The description of the project
- The activities that shall be undertaken in the implementation of the project
- The likely impact of those activities on the environment
- The number of people to be employed for purposes of implementing the project
- The segment or segments of the environment likely to be affected in the implementation of the project
- Such other matters as the Director may in writing require from the developer or any other person who the Director reasonably believes has information relating to the project

## The Malawi EIA process is in two stages...2

Stage Two: EIA study itself, following the prescribed EIA Guidelines

- A detailed description of the project and the activities to be undertaken to implement the project
- The description of the segment or segments of the environment likely to be affected by the project and the means for identifying, monitoring and assessing the environmental effects of the project
- The description of the technology, method or process to be used in the implementation of the project and of any available alternative technology, method or process, and the reasons for not employing the alternative technology, method or process
- The reasons for selecting the proposed site of the project as opposed to any other available alternative site

## The Malawi EIA process is in two stages...3

- A detailed description of the likely impact the project may have on the environment and the direct, indirect, cumulative, short-term and long-term effects on the environment of the project
- An identification and description of measures proposed for eliminating, reducing or mitigating any anticipated adverse effects of the project on the environment
- An indication of whether the environment of any other country or of areas beyond the limits of national jurisdiction is or are likely to be affected by the project and the measures to be taken to minimize any damage to the environment
- An outline of any gaps, deficiencies and the adverse environmental concerns arising from the environmental impact assessment and from the compilation of the environmental impact assessment report
- A concise description of the method used by the developer to compile the information required under this section

## Public inspection of EIA Report

- The EMA stipulates that the EIA report shall be open for public inspection provided that no person shall be entitled to use any information contained therein for personal benefit except for purposes of civil proceedings brought under this Act or under any written law relating to the protection and management of the environment or the conservation or sustainable utilisation of natural resources

## Review of EIA Report

Upon receiving the EIA Report, the Director shall invite written or oral comments from the public thereon, to:

- Conduct public hearings at such places or places as the Director deems necessary for purposes of assessing public opinion thereon
- Require the developer to redesign the project or to do such other thing as the Director considers desirable taking into account all the relevant environmental concerns highlighted in the EIA Report, any comments made by the public and the need to achieve the objectives of this Act
- Require the developer to conduct a further EIA of the whole project or such part or parts of the project as the Director may deem necessary, or to revise the information compiled in the EIA Report
- Recommend to the Minister to approve the project subject to such conditions as the Director may recommend to the Minister

## Environmental Audit

- When activities of a firm were not guided by an Environmental Management Plan (EMP) due to the fact that an Environmental Impact Assessment (EIA) or an Environmental Audit was not undertaken at any one time during the operational period, an Environmental Audit is undertaken in order to find out environmental problems affecting the operation of the project (company).

## Stop Order and offences relating to EIA

- EAD can issue a stop order to the operation of a company until the problem is rectified.
- The Company can engage a consultant to conduct an Environmental Audit.
- TCE, after reviewing the audit, can conduct a site verification inspection.
- The NCE is mandated, through the Director, to impose a penalty for contravening the provision for EIA

## Project Briefs

- NCE approves project briefs whose projects do not require a full EIA.
- The project briefs are submitted for record purposes.
- These give a short introduction and primary objectives/aims

## Approval of Directory of Consultants in EIA

NCE approve the Directory consisting of the following sixteen categories of consultants:

1. Multidisciplinary Services
2. Environmental Education
3. EIA Process, Theory and Training
4. Socio-economic Planning and Analysis
5. Land use and Physical Planning
6. Mapping and surveying
7. Landscape Architecture and Rehabilitation
8. Natural Resources Management (General)
9. Agriculture
10. Forestry
11. Botany
12. Wildlife and Fisheries Management
13. Environmental Health and Sanitation
14. Water Resources Engineering
15. Mining and Geology
16. Environmental Toxicology, Laboratory Practice and Applied Chemistry

## EIA Processing Fee

- For all developments for which EIA is mandatory, the developer or proponent is responsible for funding the EIA process
- In some countries in the SADC region and other western countries, EIAs have been found to cost between 1% and 4% of the total project cost
- Malawi uses 1% of which 30% goes to EAD as an EIA scrutiny fee and the rest (70%) is used by the developer for EIA consultancy and monitoring
- The Project Brief uses 20% of the scrutiny fee for reviewers while 30% of the scrutiny fee is used for EIA reviewers, and the remaining 50% is kept by the Department to cater for its activities such as transport, stationary, equipment, etc

## Improving the EIA process in Malawi ....1

The TCE has experienced some problems:

- Lack of training and experience on the EIA process for new TCE members and continuing exposure to new developments for the older members
- Inadequate levels of remuneration to TCE members for screening Project Briefs and EIA Reports, conducting field visits to inspect and monitor establishments
- Unnecessary delays caused by applying similar procedures of the EIA process to small and large projects

## Improving the EIA process in Malawi ....2

- The Council appears too heavily weighted towards Civil Service and lacks representation of the grass roots and those organizations that deal with development directly, such as Local Authorities and Chiefs, Business and Industry, Farmers, Women and Youth and other non-governmental organizations.
- This would tend to compromise the policing function/watch-dog function of the EAI process.
- However, the EMA provides powers to co-opt important relevant groups and individuals although this is not a substitute for a more diversified membership. Status in the revised Act?

## Summary

- NCE is guided by an Act of Parliament and is, therefore, legally sanctioned to police on environmental matters
- Conflict of interest, arising from its composition, being heavily weighted towards civil service in its membership, may compromise its role.