

IAIA10 Training Course #9

Environmental Management Plans and Systems

Level: Intermediate
Prerequisite: Basic understanding of EIA
Language Delivery: English
Duration: 2 days

Name and Contact Detail of Each Trainer:

NAME	ORGANISATION	ADDRESS	EMAIL AND TELEPHONE
E. Chigumira	University of Zimbabwe/ University of Oregon (USA)	P.O.Box Mp 167, Mount Pleasant, Harare, Zimbabwe	easther.chigumira@fulbrightmail.com echigumira@gmail.com + 263 912 726726
W. Githinji	Norken International Ltd (Kenya)	PO Box 24762-00502, Nairobi, Kenya	wngithinji@hotmail.com environment@norken.co.ke + 254 712 763428
Dr. M.M.G. Sikwese	Bunda University (Malawi)	Area 12 Plot 25, P. O. Box 30499, Capital City, Lilongwe 3, Malawi	mnyaganje@yahoo.com + 265 995 424927

COURSE DESCRIPTION

Summary

With the move towards green products and sustainable development, increasing attention is being given towards environment management tools such as environment auditing and environment management systems (EMS). These tools offer a structural and systematic approach to incorporate environmental concerns in all aspects of business and industry. The establishment of an EMS has progressively become an important support tool for both public and private enterprises in “transitioning to the green economy” as it allows organisations to comply with environmental regulations and minimises risks of liabilities and costs, while improving environmental performance.

The purpose of this course is to:

- i. Enable participants to make the link between preparing an environmental management plan (EMP) as part of the predictive process of environmental impact assessment (EIA) and thereafter incorporating the EMP into an organisation’s EMS once operations commence;
- ii. Expose participants to the purpose, principles and methods of introducing an EMS within an organisation; and
- iii. Improve the level of appreciation and understanding of EMS.

The outcome of the course will ensure that participants gain practical tools on how to support the design, development and implementation of an EMS in their organisations in order to allow for improved environmental performance and potential “sustainable green investment”. The course will also provide participants with practical steps in establishing an EMS and at the end of it, they should be able to convince their peers, colleagues and management of the importance of an EMS and be able to present the information and skills gained from the training.

This is a two day course offered at an intermediate level and therefore the prerequisite of the course is basic understanding of EIA. This course is open to members of both private and public enterprises, nongovernmental, bilateral and multilateral organisations, environment management consultants and trainers, administrators, governmental officials (particularly local government) and university lecturers.

Description of Course Structure and Content

This training follows guidelines set by the United Nations Environmental Programme (UNEP), The International Chamber of Commerce, The International Federation of Consulting Engineers as well as those set by NSF International (The Public Health and Safety Company).

Methodology for the training

The course will be carried out mainly through a series of interactive exercises in which the experiences of the participants will be taken into account.

The training will therefore employ the following approaches:

- Practical approaches to setting an EMP and EMS;
- Action learning;
- Group work; and
- Case Studies by participants and by trainers.

This methodology will encourage and allow for discussions, interactive teaching and debates. It will also provide participants with the opportunity to design their own EMS and thus immediately apply knowledge gained.

The course will incorporate group work and discussions around the experiences of the trainers, participants as well as have interactive exercises. Case study materials will be provided (several factual and one hypothetical).

The first half of day one will focus on processes in EMS and the latter part and day two will provide more practical experience, i.e., “the how to”.

The Purpose/Objectives of the training course

The objectives of the training course are to:

- Expose participants to the purposes, principles and methods of EMS;
- Improve the level of appreciation and understanding of EMS;
- Provide participants with the capacity and confidence to support the design and implementation of an EMS in their organization; and
- Enable participants to adapt the training to their specific local context and thus allow for improved environmental performance within an organization

Course Content

DAY ONE

- ***Introduction to course***
 - ✚ **Trainers introduce themselves**
 - ✚ **Participant introductions**

Introduce your neighbour. Participants will be paired off and will have to gather the following information about their neighbour (name, organisation and reason for selecting the course, and thereafter share with the group.
 - ✚ **Icebreaker**

An Icebreaker in the form of a game (*Abazonian Game*) will be introduced. The purpose of the game is not only to make it easier for participants to interact with each other but will provide some salient principles and points of reference within the course.
- ***Why introduce an EMS***
 - ✚ International Developments
 - ✚ Environmental Management History
 - ✚ Triggers of Environment Management
 - Legislation and enforcements

- Stakeholder pressure, (three minute Sky News video clip of the Sunday Times, 2 August 2009, exposition of the GAP and Levi Strauss supplier pollution probe in Lesotho).
 - Awareness, image, reputation
 - Competitiveness
 - Finance
- **What is an EMS**
 - ✚ Definitions
 - ✚ Aims
 - ✚ Associated terms and concepts
 - ✚ Core elements and purpose
 - ✚ ISO 14001
 - ✚ How to develop an EMS (Brief and highlight the course structured on development of an EMS)
 - ✚ Influence on functions in the organisation
 - Who will oversee the system
 - Who should be involved
 - Performance and rewards
 - ✚ Exercise One: Drivers and Barriers to Environmental Management
 - ✚ Exercise Two: How does my enterprise affect the environment? (this will lead to the next session on A-Z of EMS systems and ensuing application exercises)
- **A-Z of EMS**
 - ✚ Environmental Review
 - Overview of the initial Environmental Review
 - Methodology
 - Planning the initial review
 - Team Selection Factors
 - Preparation
 - Carrying out the Review
 - Steps in the initial review
 - The Report
 - Environment Reference Manual
 - Application Exercise: Evaluating my enterprises environmental issues (participants come with information to present on this)
Purpose: To practise the procedures for identifying the potential environmental problems of an enterprise. Participants will learn how to identify possible environmental impacts of their activities, to set criteria and to prioritise environmental issues. This can be done individually and trainers will ask people from different types of organisations to present (worksheet will be provided).
 - ✚ An Organisation's Environmental Policy
 - The role of the environmental policy
 - Developing the policy
 - Content of policy
 - Publicising the policy
 - Implementing the policy

- Revising and Improving the policy
- Application Exercise: Defining an Environmental Policy
Purpose: To practise drawing up an environmental policy statement for an organisation (use of hypothetical case, or real life case, or case of their own organisation)
- ✚ Developing an Environmental Management Plan
 - Objectives and targets
 - Who should be involved
 - Criteria
 - Steps in developing an Environment Management Plan
 - Link between an EMP (at the EIA stage where still predicting to an audit to an EMS)
 - Application Exercise: Moving from Policy to EMP
Purpose: To gain an overview of the steps involved in preparing an EMP, and of the relevant concepts, techniques and terminology. Trainer and participants will process the steps described in the lecture in relation to a case study.

DAY TWO

- *Overview of day one*
 - ✚ Where are we now?
 - ✚ Where do we want to go?
 - ✚ How do we get there?
- *A-Z of EMS*
 - ✚ Defining environmental responsibilities
 - Benefits
 - Structure and systems
 - Responsibilities
 - Organisational problems
 - ✚ Defining Environmental procedures
 - Nature and scope of procedures
 - Preparing procedures
 - What should be covered
 - Responsibility for writing procedures
 - Documentation of procedures
 - Potential problems
 - Application Exercise: Defining procedures of a Company
Purpose: To give participants experience in defining procedures for a common case study. Worksheet will be provided:
 - ✚ Communicating Change in an Organisation
 - What change is necessary?
 - How to win other over
 - Methods
 - Application Exercise: Determining the changes required and communication approaches
Purpose: To identify training needs specific to participant's organisation, the type of training, purpose and audience. A blank matrix will be provided in which participants will fill in

this information. Alternatively a case study can be given in which participants can work out the training needs

- ✚ Auditing and evaluating performance
 - What is an environment management system audit
 - General Principles
 - Criteria and issues
 - Procedures
 - Qualification criteria for environmental auditors
 - Audit adequacy
 - Management Review
 - Application Exercise: Evaluating my Organisation
Purpose: To impart skills of setting criteria for evaluation, communicating the criteria and the process of the evaluation to the participants. A worksheet will be provided where the participants will indicate the criteria as well as the communication process.
- ***Integration of EMS with health, safety and quality management systems***
 - ✚ Identification of similarities and differences
 - ✚ Levels of integration
 - ✚ Factors which can aid or hinder integration
 - ✚ Conceptual models for integrated systems
- ***How do I relate the information I have learnt to my organisation?***
- ***Conclusion and Summary of Course***

Course Material

Participants will be provided with a course manual, which will include slides of the presentations, case studies, worksheets and reference materials.

Pre Conference and Post Conference Communication

A pre-course questionnaire will be developed for the participants. The aim of the questionnaire would be to carry out a needs assessment of the participants. This will enable the course to be adapted to the participants' needs and allow for specific case studies to be provided to certain sectors relevant to the participants' areas of focus.

At the end of the course, participants will be asked to write a letter to themselves on how they will implement the information gained from the training in their own organization. This letter will then be posted to the participants six months after the training as a means of following up on participants' action plans, and to encourage them to pursue the goals they set at the training. This is part of the post conference follow up.

QUALIFICATION OF TRAINERS

CURRICULUM VITAE : EASTHER CHIGUMIRA

Summary of Qualifications

A land and agrarian expert and an environmental scientist who holds a Master of Science degree in Geography and a Postgraduate Certificate in Secondary Education and Further Training. She has six years of teaching and consulting experience. As a consultant she has trained, facilitated and conducted professional development workshops, worked as part of a team of consultants on Environment Assessment projects in Zimbabwe and Namibia. As a lecturer at the University of Zimbabwe she has taught aspects of Environment Impact Assessments, ISO 14001, Environmental Management Systems (EMS), Agriculture and the Environment, Common Property Resources (focus on Community Based Natural Resource Management Programmes) to Masters of Environment Policy and Planning students. As a Teaching Fellow at the University of Oregon (USA) she is responsible for the course People and the Environment. In 2008 she was a recipient of the Capacity Linkages for Environmental Assessment in Africa (CLEAA) Professional Development Fellowship, aimed at building the capacity of African environmental experts

Membership in Professional Societies and Associations:

Member, International Association of Impact Assessment
Member, Geographical Association of Zimbabwe
Member, Food and Agriculture Agricultural Coordinating Working Group (FAO-ACWG)
Member, Africa Local Government Action Forum (ALGAF)
Environmental Assessment Professional Development Fellow, 2008

Publications and Conference Contributions:

R.C. Fox, E. Chigumira, K.M. Rowntree, 2006, On the Fast Track To Land Degradation: A Case Study of the Impact of the Fast Track Land Reform Programme in Kadoma District, Zimbabwe, *Geography*, (2007) Vol 92, 3, .212-224.
Chigumira E, and Okello, N: **Influence Capacity of the Public: Cases of Namibia and Kenya** presented at the *International Association of Impact Assessors Conference*, Accra, Ghana, May 2009
Chigumira, E and Mujere, N: **Variability of Urban Water Supply and Demand** presented at the *Water and Urban Development Conference*, Leuven, Belgium, September 2008.
Chigumira, E: **Land Use and Land Cover Change: Keeping up with Fast Track**, Kadoma District, Zimbabwe, presented at the *Geographical Association of Zimbabwe Conference*, Bindura, Zimbabwe, June 2007

Education:

2009 Presently studying towards a PhD in Geography, University of Oregon, USA
2006 MSc in Geography, Rhodes University, South Africa
2002 BA (Hons) Geography, Rhodes University, South Africa
2001 BA in Geography and Industrial Psychology, Rhodes University, South Africa

Employment Record:

2009 to present: Graduate Teaching Fellow, University of Oregon, USA

Course: People and the Environment for undergraduate students

2007 to present (on study leave): Lecturer, University of Zimbabwe, Zimbabwe

Courses: Environment Assessments to postgraduates, Agricultural Geography to honours students and Development Studies to undergraduate students

Independent Consultant

Specifics included

May 2009, Carried out a social impact survey for the EIA An irrigation project at Ruti in Gutu, Zimbabwe, Oxfam, GB

June to September 2008, conducted a Strategic Environment Assessment of proposed investment activities by the Millennium Challenge Corporation in the Northern Communal Areas of Namibia as a member of the SAIEA Social Impact Assessment Team, Government of Namibia

June 2007, Trainer, Environment Impact Assessment (EIA Techniques and Evaluation) for Zimbabwe National Parks (Zim Parks) Officers, Department of National Parks

March 2007, produced an Environment Management Plan for AJC Mining (Pty) Ltd, Kadoma, Zimbabwe

CURRICULUM VITAE : WANJIKU GITHINJI

Summary of Qualifications

An Environmentalist with an Honours Degree in Environmental Studies, and a Postgraduate Degree in Environmental Impact Assessment, Auditing and Management Systems, trained in the UK, Namibia, Australia and Kenya. Wanjiku Githinji is registered with the National Environment and Management Authority (NEMA) of Kenya as a Lead EIA/Audit Expert. She has over seven years of work experience as a Consultant in the fields of environmental assessment, management and eco-tourism. She has worked all over Kenya, as well as in parts of East Africa and Europe conducting environmental audits, environmental impact assessments, as well as research for International Organisations such as the World Bank, Danida and Academic Institutions. She is currently the Head of the Environmental Department at Norken International Ltd, an Engineering and Management Consultancy Firm based in Nairobi. In 2008 she was a recipient of the Capacity Linkages for Environmental Assessment in Africa (CLEAA) Professional Development Fellowship, aimed at building the capacity of African environmental experts

Membership in Professional Societies and Associations:

Registered Lead Environmental Impact Assessor / Environmental Audit Expert with the National Environmental Management Authority (NEMA) of Kenya (Reg. No. 1244).
Member, Eco-Rating Evaluation Committee 2008-2010, Eco-tourism Kenya
Member, Environmental Committee, Kenya Alliance of Residents Associations
Member, Chartered Institution of Wastes Management, UK
Member, International Association of Impact Assessment
Environmental Assessment Professional Development Fellow, 2008

Journal and Magazine Articles:

Githinji, Wanjiku Mwangi (2008) *Kenyan Petrol Stations and their Impact on the Environment*. Petroleum Insight Magazine, Fourth Quarter, October – December 2008.

Education:

2006 MSc in Environmental Impact Assessment, Auditing and Management Systems, University of East Anglia, UK
2001 BSc (Hons) Environmental Studies, University of Hertfordshire, UK

Employment Record:

April 2008-Date: Norken (I) Ltd Engineering and Management Consultants

Position Held: Head of Environmental Department

Specific projects with Norken (I) Limited have included:

May 2009. Trainer. Training on environmental impact assessment review: EIA preparation procedure. Client: Municipal Council of Nakuru/JICA

May 2009 – ongoing. Environmental Specialist. Environmental impact assessment for the raising of Masinga Dam. Client: Kenya Electricity Generating Company Limited (KenGen)

December 2008 – May 2009: Local Expert for the Study Team assisting the National Irrigation Board (NIB) in conducting an environmental impact assessment (EIA) and resettlement action plan (RAP) for the Mwea Irrigation Development Project. Client: Nippon Koei/JICA/NIB

December 2004 to March 2008: Independent Consultant

Specific projects included:

June 2007- Feb 2008: Assistant auditor and logistical support to the Tourism Cluster Product Survey for the Small, Micro and Medium Enterprises (SMMEs). Client: Tanzania Private Sector Foundation, Tanzania

April 2007: Managing a workshop on performance based contracting for energy efficiency. Client: Integrated Energy Solutions (IES) Ltd, Nairobi, Kenya.

September 2006: Environmental audit of three semi-permanent camps in the Masai Mara Conservancy. Client: Olare Orok Conservancy, Narok District, Kenya

CURRICULUM VITAE : MARGARET MWANJANI GANJE SIKWESE, PhD

Summary of Qualifications

A lecturer and researcher with major interests in the environment and natural resource management. She is committed to and actively involved in the enhancement of the practice of environmental and social impact assessments. Since 2000, she has been teaching Environmental Impact Assessment Procedures and Environmental Forestry at Bunda College of Agriculture, University of Malawi. She has also participated in teaching the Leaders in Environment and Development (LEAD) fellows from Southern Africa in Malawi. She is the Secretary for the Environmental Impact Assessment Association of Malawi (EIAAM) since 2003. In 2008 she was awarded an EIA Professional Development Fellowship of the Capacity Linkages for Environmental Assessment in Africa (CLEAA). Through the program, she has gained extensive knowledge in EIA through training in EIA and Sustainable Development, Human Wellbeing and Social Impact Assessment. She has recently completed a two-month professional internship at the Southern African Institute for Environmental Assessment (SAIEA).

Membership in Professional Societies and Associations:

- International Association for Impact Assessment (IAIA) – member
- Environmental Impact Assessment Association of Malawi (EIAAM) – member
- Development Studies Association (DSA-UK)-member

Publication and Conference Contributions:

A. BOOK

Kaarhus R., Jorgensen I., Kamoto J., Mumba R., Sikwese M. and Ferrar, S (2003): NKHALANGO! A Social Forestry Model: Experiences from Blantyre City Fuel wood Project in Southern Malawi. NORAGRIC, University of Norway

B. Conference contributions

Sikwese M. (2002): Participatory Forestry Under Decentralisation Policies: The Case of Lilongwe Forestry Project, Malawi. Paper contributed to the FAO's 2nd International Workshop on Participatory Forestry in Africa: Defining the Way Forward: Sustainable Livelihoods and Sustainable Forest Management through Participatory Forestry. 18-22 February 2002. Arusha, Tanzania.

Sikwese M. (2003a): The Policy and Legal Framework for the Control of Plant Invaders in Malawi. Paper presented at the 19th Biennial Weed Science Society Conference for Eastern and Southern Africa. 24th-27th February 2003. Lilongwe, Malawi.

Sikwese M., Mloza-Banda H., and Kabambe, V. (2003b): The Potential Role of Multi-Purpose Tree Species (MPTS) to Control *Striga* in Malawi. Paper presented at the African crop Science Society Conference. 12th-17th October 2003. Nairobi, Kenya.

Sikwese M. and Mwaya R. (2003c): Natural Resource Management Models: Selected examples on biodiversity conservation from Malawi and Tanzania. Paper presented at conference on Wildlife and Biodiversity Conservation. 17th December 2003. Moshi, Tanzania.

Sikwese M. M. G (2007): Power relations, Modalities and Sites for Power Contestation in Community-Based and Decentralised Forestry under Decentralisation in Malawi: A Case Study of Malingunde in Lilongwe District. A Research Poster presented at the Development Studies Association Conference held at Institute of Development Studies, Sussex University, UK. 18th-20th September, 2007.

Education:

- **PhD in Development Studies** (2008), University of Bradford, United Kingdom
- **Post Graduate Diploma in Research Methods for the Social Sciences and Humanities, (with merit)** (2006), University of Bradford, United Kingdom
- **Master of Science Degree in Tropical Forestry** (2000), Wageningen Agricultural University and Research Centre, The Netherlands
- **Bachelor of Science Degree in Agriculture (with Distinction)** (1997), University of Malawi
- **Diploma in Agriculture (with Credit)** (1995), University of Malawi

Employment Record:

1998 - present: **Lecturer in Environmental Impact Assessment Procedures and Forest Policy,**
Bunda College of Agriculture, University of Malawi

Independent Consultant

2002 Environmental Impact Assessment and Audit for Bunda Quarry-Team Member

2002 Evaluation of MASAF Pilot Sub-Sponsored Projects-Team Member

2003 Defining the role of the UNDP in Natural Resource Management in line with the Malawi Poverty Reduction Strategy

Training offered by the Trainers

The following illustrate different training courses that have been offered by each of the trainers. Each of these courses was conducted once for the specific sector by the training teams, achieved its objectives and was successful.

Assignment Name: Training on environmental impact assessment (EIA) processes and evaluation		Country: Zimbabwe
Name of Firm: University of Zimbabwe, Department of Geography and Environmental Science		Professional Staff provided by the firm: EIA and GIS Experts
Location within Country: Harare		No of Trainers: 5
Names of senior staff of the firm involved and functions performed:		
Dr A. Murwira	Trainer: Biophysical Impact Predictions and Assessment	
Dr. L Zanamwe	Trainer: Social and Economic Impact Assessment	
Ms. I Mbengo	Trainer: EIA Processes	
Mr. S Kusangaya	Trainer: EIA Methods	
Ms E. Chigumira	Trainer: EIA Methods	
Name of Client: Zim Parks		No. Staff provided for training: 12
Address: Zimbabwe National Parks, P.O. Box CY 140, Causeway, Harare		Duration of Assignment: 5 days - June 2007
Start date : 25/06/2007	Completion date: 29/06/2007	
Narrative description of Training Course Conduct a workshop on the processes and methods for conducting EIAs for the Zimbabwe National Parks (Zim Parks) officials.		
Description of actual services provided: The components of the training included: <ul style="list-style-type: none"> • EIA processes, methods and tools • Biophysical Impact Predications and Assessments • Social Economic Impact Assessments • Case Studies and a practical mini EIA exercise 		

Assignment Name: Training on environmental impact assessment (EIA) report review and EIA preparation procedure		Country: Kenya
Name of Firm: Norken International LTD		Professional Staff provided by the firm: EIA Experts
Location within Country: Nairobi		No of Trainers: 2
Names of senior staff of the firm involved and functions performed: Wanjiku Githinji - Trainer Jane Kahata - Trainer		
Name of Client: JICA/Municipal Council of Nakuru		No. of Staff Provided for Training: 20
Address: Municipal Council of Nakuru, P.O. Box 15962, Nakuru		Duration of Assignment: 2 days, May 2009
Start date: 18/05/2009	Completion date: 19/05/2009	
Narrative description of Training Course: Conduct a workshop on the preparation of an EIA report from the perspective of an EIA Consultant/Practitioner for the Municipal Council of Nakuru (MCN) staff (Pollution Control Section); Nakuru Water and Sanitation Company Limited (NAWASSCO) representatives; and Kenya Wildlife Services (KWS) officials from Nakuru National Park.		
Description of actual services provided: The components of the training included: <ul style="list-style-type: none"> • Practical Procedure of EIA Preparation • Introduction of Tools for EIA • Case Study and Group Work 		

Assignment Name: Training on Leadership and Sustainable Development		Country: Malawi
Name of Firm: Independent Consultant		Professional Staff provided by the firm:
Location within Country: Lilongwe		No of Trainers: 1
Names of senior staff of the firm involved and functions performed: Margaret Sikwese – Trainer		
Name of Client: LEAD International – Southern and Eastern Africa		No. Staff provided for training: 13 LEAD Fellows (Cohort 10)
Address: LEAD Southern and Eastern Africa, University of Malawi, Chancellor College, P. O. Box 280, Zomba, Malawi		Duration of Assignment: One Week
Start date (/day/month/year): 8/06/03	Completion date (/day/month/year): 15/07/03	
Narrative description of Training Course: The course aimed at providing the LEAD fellows with an understanding of their role as leaders to achieve sustainable development.		
Description of actual services provided: <ul style="list-style-type: none"> • Lecture on Natural Resource Management Models • Facilitation of 3 Working groups 		