



IES NEWS

News from the Institute of Environmental Studies

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INTRODUCTION

Welcome to the second edition of the IES News for 2009. The year 2009 was a very special year for the Institute of Environmental Studies as we celebrated our fifteen year anniversary. As we draw to the end of the year, we reflect on the year gone by and look at our achievements and challenges. We had a relatively good year compared to the previous year where we faced major economic challenges. Some of the highlights of 2009 include:

- the Institute publishing its five year strategic plan;
- successful participation in the launch of the National Environmental Policy whose development we facilitated on behalf of the Ministry of Environment and Natural Resources Management;
- launching of two DeLPHE projects;
- participating in a number of local and international fora;
- receiving funding for a new initiative from IDRC;
- delivering two seminars, just to mention a few.

We thank our partners and collaborators for their continued support to the Institute and a special thank you goes to the IES members of staff who have worked tirelessly to make 2009 a success.

This edition of the IES news will provide you with some insights on the following issues:

- The launch of the National Environmental Policy.
- APINA and the promotion of Regional Protocols on Air Pollution.
- IDRC waste management project.
- Launch of DeLPHE water project.
- Seminar Series report of IDRC Masters Student Seminar and GEF dissemination Seminar
- Short course on GIS for lecturers from Agricultural Colleges

- Tree planting activities in Chimanimani and Mbire communities

LAUNCH OF THE NATIONAL ENVIRONMENTAL POLICY AND STRATEGIES, 13 SEPTEMBER 2009

The Ministry of Environment and Natural Resources Management launched the National Environmental Policy (NEP) on the 13th of September 2009 at a very colourful ceremony officiated by the Vice President of the Republic of Zimbabwe, Mrs. J. Mujuru. The theme for the launch of the policy was "Our Environment, Everyone's Responsibility." The Institute of Environmental Studies had the honor of hosting the display on the policy development process and the highlights of the policy.



Figure 1. The Vice President, Mrs. J. Mujuru, The Minister of Environment and Natural Resources Management, Mr. F. Nhema and the Minister of Agriculture Mechanization and Irrigation Development, Dr. J. Made listen to a presentation by Mrs. Tirivanhu (IES) on the policy formulation process at the NEP launch.

The National Environmental Policy development was facilitated by the Institute of Environmental Studies and the resultant policy is a product of effective national dialogue and consultation; which is harmonized with related policies in other sectors; sensitive to the values and interests of

remote communities; practical and guided by the national development agenda and national aspirations; and, cognizant of resource limitations and the changing nature of governance.



Figure 2. The Vice President, Mrs J. Mujuru, officially launching the National Environmental Policy and Strategies.

The National Environmental Policy is a **framework policy** that allows for the development of subsidiary policies (e.g. The Wildlife Policy, The Forestry Policy, The Environmental Education Policy, etc) and sectorial policies on issues relating to the environment.

The principles which underpin the policy are that the environmental concerns arise within and cut across all sectors of society. These include the three pillars of sustainable development which are the environment, social processes and economic activities. From a policy perspective there is need to look at these issues to see their influence and feed backs so as to ensure that the

eventual policy responses are to the extent possible complete, appropriate, and effective.

The Pressure – State – Response model forms the basis of the National Environmental Policy. The policy is also informed by the **sustainable development concept** and the **ecosystem approach** as means of integrating social, economic and environmental relationships. The essence of this policy is presented in Figure 1.

The Figure shows that the environment has a **state** which in itself is naturally dynamic, changing seasonally as well as having effects amongst its components. In addition **social processes/dynamics** in terms of population size and growth, its distribution and aspects within that population such as health and mortality, poverty and social diversity pose **pressures** on the environment. **Economic activities** in all their forms also impose **pressures** on the environment due to their demand and use of materials, energy and water as well as production of waste and pollutants. There is therefore the need to **respond** to these pressures through **environmental management**. Environmental management includes three main approaches; legislation, regulations and enforcement; direct and indirect intervention either through using or creating markets; and the application of incentives to engage the public and encourage self regulation, more effective resource use and a willingness to internalize environmental and social costs.

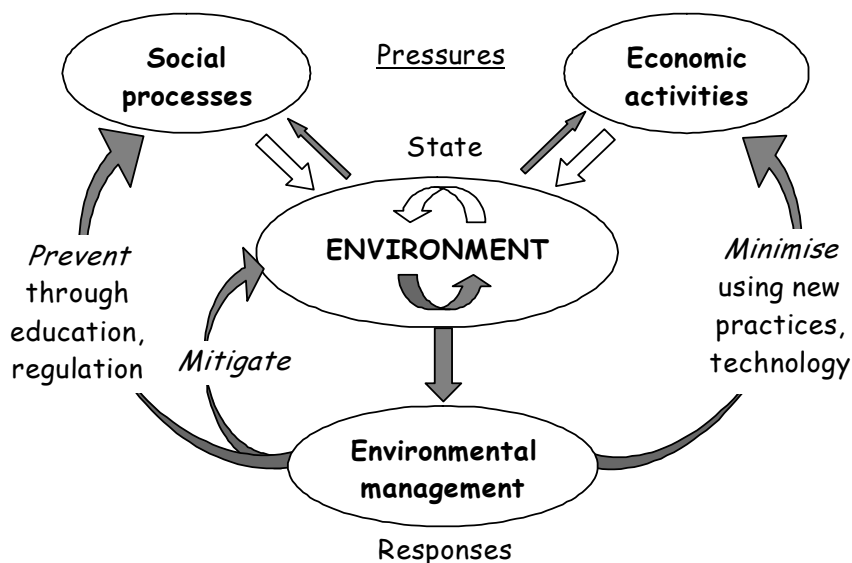


Figure 1. Relationships between the environment and the various social, economic and natural environmental pressures on it. The changes in state induced by these pressures in turn produce feedbacks on them, both naturally and by stimulating different kinds of management responses.

This policy is presented in a format which has the essential elements of a useful policy. These are:

Vision = desired state.

Policy objectives = purpose; a contribution to fulfilling the vision.

Policy goals = targets that need to be met to achieve the objective.

Principles = fundamental premises on which planning and action are based.

Strategies = broad approaches defining actions.

Institutional arrangements = organization and management needed to implement the strategies.

The Institute is proud to be associated with the National Environmental Policy and Strategies of the Republic of Zimbabwe. For more information on the National Environmental Policy, please contact Doreen Tirivanhu on doreen@ies.uz.ac.zw

THE AIR POLLUTION INFORMATION NETWORK FOR AFRICA (APINA) DEVELOPING A REGIONAL POLICY PROCESS FOR AIR POLLUTION IN AFRICA.

The Institute of Environmental Studies is the secretariat of the Air Pollution Information Network for Africa (APINA). APINA's purpose is *"To fill gaps in knowledge on air pollution issues in southern Africa and ensure that currently available information and concerns are articulated to policy makers and the regional policy process is promoted."* The network aims to form a strong link between the air pollution scientific community and policy makers at national and regional levels.

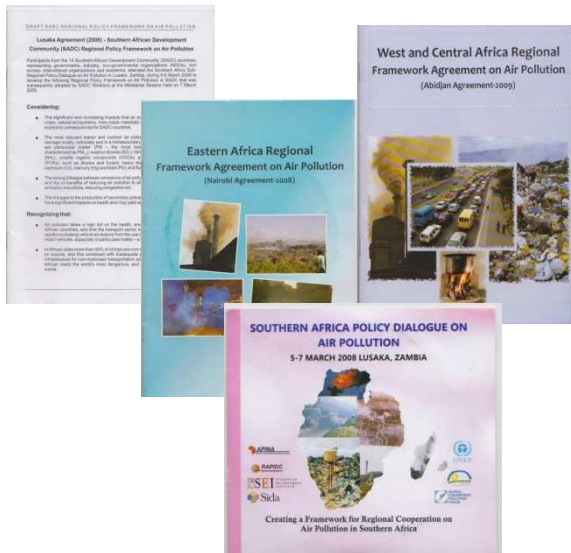
The overall purpose of the Regional Air Pollution in Developing Countries (RAPIDC) Programme of which APINA is a component is *"to facilitate the development of agreements and/or protocols to implement measures which prevent and control air pollution through promoting international cooperation and developing scientific information for the policy process"*. This is because the development of regional agreements on air pollution can act as a powerful stimulus for progress in developing air pollution prevention and control strategies, within countries and across whole regions. This allows for transboundary issues to be tackled and for the development of coherent policies across regions that can solve some of the local or national scale problems.



**Figure 3. Above: Delegates to the Abidjan Policy Dialogue meeting
Below: Delegates to the Lusaka Policy Dialogue**

APINA has promoted the development of regional policy frameworks through regional policy dialogues and "Better Air Quality in sub-Saharan African Cities" Conferences. Through these processes, APINA together with international partners has facilitated the development and adoption of sub-regional framework policies on air pollution. These include the:

- o Lusaka Agreement (2008). SADC Framework Policy on Air Pollution.
- o Nairobi Agreement (2008); East African Regional Framework Agreement on Air Pollution.
- o Abidjan Agreement (2009); West and Central Africa Regional Framework Agreement on Air Pollution.



All these Framework Policies on Air Pollution have targets aimed at reducing air pollution:

- In the Transport Sector
 - Cleaner fuels*
 - Cleaner vehicles*
 - Urban planning*
- Industry
- Open Burning
 - Vegetation fires, uncontrolled burning and deforestation*
 - Waste management*
- Indoor Air Pollution

The agreements also cover:

- Multilateral Cooperation
- National Environmental Governance
- Public Awareness
- Research, Development and Capacity Building

APINA wishes to partner with SADC in implementing the SADC Policy Framework Agreement through capacity building and continued dialogue with stakeholders and policy makers. The Institute of Environmental Studies, APINA's Secretariat is "A SADC Centre of Excellence in Environmental Networking." The Director of the Institute, Professor. S. Feresu recently presented the SADC Regional Air Pollution Framework on Air Pollution at the SADC Meeting of Ministers Responsible for Environment and Sustainable Development held 10 -13 November 2009 in Victoria Falls.

For more information on this project, please contact Prof. Feresu on feresu@ies.uz.ac.zw or secretary@ies.uz.ac.zw

IES EFFORTS TOWARDS ADDRESSING THE CITY OF HARARE'S SOLID WASTE MANAGEMENT PROBLEMS

The City of Harare is facing major challenges in waste management. The major symptoms of the challenge are the increasing number of illegal dumpsites that are emerging in most open spaces around the City especially in residential areas. The City of Harare has the legal mandate to collect waste within the City but has been severely constrained by the economic challenges which bedeviled the country in the last decade. Waste collection services are inadequate and only a fraction of the waste is being collected. The growing problem of waste management poses a major health and environment risk and calls for an integrated approach to resolve it.



Figure 4. Illegal dumpsite in Sunningdale High Density Suburb in Harare



Figure 5. Illegal waste dump opposite Harare's posh suburb of Vainona.

The traditional method of waste management in the City of Harare has been the end-of-pipe approach of collecting solid waste and disposing it at the landfill. New practices of waste management advocate for an integrated waste management system which will require a shift from the traditional end-of-pipe control to waste

prevention and integrated waste management. The success of this approach hinges on involvement of all stakeholders in the waste management chain. The Local Authority has not fully harnessed the possible contribution of the different stakeholders and hence there has been no effective collaboration among different groups of stakeholders in management of waste. Some limited initiatives have been introduced where stakeholders have been involved but these are at such a small scale that their impact has been limited.

The IES is in the process of engaging all stakeholders in the waste management process to form a public-private- community partnership and pilot a project under this partnership. The engagement process would identify each stakeholder's role in the waste management process and advocate for an all inclusive integrated approach. The stakes of the different stakeholders are as follows:

- a) IES/ The University of Zimbabwe has capacity for waste management research and education.
- b) The private sector generates waste and should be involved in waste management through cooperate social responsibility.
- c) The Environmental Management Agency has the mandate to enforce waste management legislation such as the polluter pays principle and to educate the public on waste management.
- d) The City of Harare has the legal obligation to keep the City clean.
- e) Other organizations have various interests in a clean environment.
- f) Consumers play a big part in waste generation and must be involved in its management.

Key stakeholder consultations have been made with the major stakeholders including the City of Harare, the Environmental Management Agency, the business community, NGO's and representatives of City of Harare residents. A stakeholder workshop will be held in Harare in January 2010 to discuss the way forward.

This initiative is supported by the Canadian International Development and Research Centre (IDRC). For more details on the project. Please contact Doreen Tirivanhu on doreen@ies.uz.ac.zw or Dr P. Mugabe on phmugabe@ies.uz.ac.zw

Incorporating the climate change dimension in the integrated water resources management (IWRM) postgraduate programme in Southern African universities

The Department for International Development (DFID) through the Development Partnerships in Higher Education (DePHE) program is supporting a project on *Incorporating the Climate Change Dimension in the Integrated Water Resources Management (IWRM) postgraduate programme in Southern African universities*. The Institute of Environmental Studies is coordinating the project in collaboration with the Department of Civil Engineering at the University of Zimbabwe and Department of Water Resources Engineering, University of Dar es Salaam, Tanzania.

The purpose of the project is to respond to the threats of climate change to the Southern African freshwater water resources which are key for the achievement of environmental sustainability. The project will contribute towards the academic training of future water managers so that they have deeper knowledge and understanding in the area of global climate change and IWRM. The partnership will review the current IWRM curriculum being used at Masters level. This will enable the improvement of some of the modules and the establishment of new modules which will deal specifically with climate change.

The IWRM Masters students will graduate with adequate theoretical and practical knowledge on how to apply IWRM concepts in the management of water resources. Each student will have a better appreciation on:

- the causes of climate change,
- its impacts,
- adaptation and coping strategies,
- why freshwater resources are finite but essential to sustain life,
- why it is vital to have stakeholder participation in the management of water resources,
- why women have to play a central role in the safeguarding and management of water resources and
- why water has to be regarded as an economic good.

All these principles of IWRM will enable the students to understand why and how it is vital for water resources to be managed in an integrated manner within the context of climate change.

The project was officially launched on the 24th of November 2009 at the University of Zimbabwe in the Council Room. Among the guests were: the Acting Vice Chancellor of the University of Zimbabwe, Dr. Mujaji; the Director of the British Council in Zimbabwe, Mr Rajiv Bendre, the Deputy Director of the Institute of Environmental Studies, Dr. Prisca Mugabe; the Dean of the Faculty of Engineering at the University of Zimbabwe, Eng. Nyemba, the Head of Department from the Department of Water Engineering at the University of Dar es Salaam, Prof. D. Mashauri, representatives from other University of Zimbabwe departments, Ms Zanele Mukwedeya from the British Council office and Project coordinator from the Institute of Environmental Studies, Mr. K. Kujinga. For more details on the project please contact.

kkujinga@ies.uz.ac.zw

SEMINAR SERIES REPORT

Dessimination Seminar On Combating Land Degradation Within The Zambezi International Water Basin

A seminar to disseminate the results of the Global Environmental Facility (GEF) Small Grants funded project on Combating Land Degradation within the Zambezi International Water Basin in Mbire Rural District was held on the 17th of November 2009. The purpose of the seminar was to disseminate information on activities undertaken so far by the Mbire Community with facilitation from IES and discuss ways of further combating land degradation. There were four major presentations on the following topics:

- Social survey results on the extent, causes and impacts of land degradation in Mbire District.
- Afforestation activities in Mbire District.
- GIS Mapping.
- Gulley reclamation activities.



Figure 6: Mrs. Mhlanga (GEF Small Grants Coordinator) and Prof. Feresu, IES Director, at the GEF seminar.

The project facilitated gulley reclamation in the district by local communities. This includes the filling of gullies with soil and rocks and stabilizing these by growing vertiver grass and trees on top of the filled gullies. In some cases contours and drainage ways are being constructed to divert water which is causing gullies.

The communities are also encouraged to plant fast growing indigenous and exotic trees which are suitable for the climate in the district. IES has facilitated access to 25,000 *Jatropha* seedlings from the NOCZIM *Jatropha* Programme which it has distributed for planting in Mbire District. A total of 3,000 Gum tree seedlings have also been provided to the district.

The workshop was attended by 30 participants drawn from the University community, government departments, civil society and NGO's



Figure 7: Mbire community members reclaiming a gully.

Master's Student Seminar on the project "Impacts of Land Reform Migrations on Forest Resources Management in Model A1 Resettlement Areas of Chimanimani District in Zimbabwe"

Two Master of Philosophy students on the Chimanimani project presented their research proposals at a seminar held on the 31 July 2009.



Figure 9: Miss. C. Nyelele, presenting her MPhil. Project Proposal.

The first presentation was:

- Spatial and temporal change analysis of biodiversity in Nyabamba A1 resettlement area of Chimanimani district in Zimbabwe by Charity Nyelele

The main objective of this study is to explore, analyze and explain spatial and temporal changes that have occurred in forest biodiversity as a function of agricultural land expansion into forest areas in Chimanimani after the FTLRP

Specific objectives

The main objective of the study will be accomplished through the following specific objectives:

- To determine land cover change from 2000 to 2009 from a forest patch dynamic perspective in the study area
- To explore whether there are significant differences in vegetation and wildlife species diversity among forest patches of different sizes in the study area
- To assess community perspectives on biodiversity and biodiversity conservation
- To model future spatial patterns of forest biodiversity using a spatial Markov model
- To make policy recommendations for increased community action in biodiversity conservation

The second presentation was:

- Impacts of Land Reform Migration on Forest Resources and Rural Livelihoods in Nyabamba A1 Resettlement Area of Chimanimani, Zimbabwe by Esteri Magaisa

The general research objective of this study is to explore the linkages between land reform migrations, livelihoods, gender, poverty and management of forest resources in Nyabamba A1 resettlement area of Chimanimani District.

The Specific Objectives are:

- To investigate the push and pull factors of migrating to A1 resettlement area.
- To investigate contributions of forest resources to the migrants' livelihoods.
- To assess patterns of use, control and ownership of land and forest resources from a gender perspective.
- To examine forest resource management mechanisms in place.

Figure 8: Miss. E. Magaisa, presenting her MPhil. Project Proposal.



The students benefited from the input of participants. The seminar was attended by 45 participants drawn mainly from the University community.

IES would like to thank the university community for their continued and tireless support to the Institute.

EDUCATION AND TRAINING WORKSHOP

The Development Partnerships in Higher Education (DeHPHE) program project on *Strengthening Environmental Education in Agricultural Colleges in Zimbabwe* held two

training of trainers course between August and November 2009.

Twenty five lecturers from five agricultural training colleges (Chibero, Gwebi, Esigodini, Mlezu and Rio Tinto) attended a training of trainer's course whose aim was to train them to teach a new environmental course to be introduced in the training colleges in 2010. The new course entitled, '**Environmental Management of Agricultural Landscapes**' was developed by the Institute in collaboration with the five colleges involved under the DeIPHE partnership project. The lecturers were taken through the teaching guides of the course by experts in the various fields. The delivery of the first course was successful but participants requested for a more detailed course on Geographical Information Systems and Remote Sensing as this was a new specialized subject area for most of them.

A second training course specifically on Geographical Information Systems and Remote Sensing was conducted from 23 to 27 November 2009 at the University of Zimbabwe's Geography and Environment Department. This second course was attended by 20 lecturers drawn from the participating colleges. According to the course evaluation reports, participants indicated that they had gained enough confidence to start teaching the course on the *Environmental Management of Agricultural Landscapes*. The course is expected to be introduced at the colleges during the second term of teaching in the agricultural colleges in 2010. The IES will send out evaluators to assess the delivery of the courses.

For more information on the *Strengthening Environmental Education in Agricultural Colleges in Zimbabwe* Project, please contact, Dr. P. Mugabe on phmugabe@ies.uz.ac.zw or tel +263-4-332039

Tree Planting Activities

December is national tree planting month and the IES is actively participating in promoting the planting of trees especially indigenous trees which are well adapted to the agro-ecological climate in Zimbabwe. The IES planted 300 trees in Chimanimani District and 100 trees in Mbire district in December. The Institute is urging each person to grow at least one tree a year in order to combat deforestation.



Figure 10: Deforestation in Mbire District



Figure 11: Scotch cart with tree seedlings provided by IES in Mbire District.

CHRISTMAS GREETINGS

THE DIRECTOR AND STAFF OF THE INSTITUTE OF ENVIRONMENTAL STUDIES WOULD LIKE TO WISH ALL OF ITS COLLABORATORS, DONORS AND PARTNERS A MERRY XMAS AND HAPPY AND PROSPEROUS 2010