

The Role Of Environmental Information, Awareness Building And Education In Solving And Preventing Environmental Problems In Uganda

Alice Ruhweza

1. Introduction

Public Information is one of the cornerstones of sustainable development. Providing easy access to information is one of the most direct routes to broad participation in environmental decisions and better environmental decisions. When those most affected by a decision participate in the process, the result is likely to be more environmentally sound and more broadly accepted.

Both the Rio Declaration and Agenda 21 emphasize the relevance of information in achieving the objectives of sustainable development. The states and the governments noted in principle 10 that at national level, each individual shall have appropriate access to information concerning environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision making processes. Chapter 40 of Agenda 21 is dedicated to the actions that would be taken to provide information for decision making by bridging the hitherto existing data gap and improving information availability.

Various international and regional meetings on environmental education organized since 1975 by UNESCO, with the cooperation of UNEP and particularly the intergovernmental conference on environmental education have stressed the importance of elaborating guidelines and instruments which would stimulate those in charge of educational environmental activities at various levels to develop an environmental related pedagogy.

Fundamentally the need for environment information, awareness and education building arises from the need for an environment fit for life, a healthful and healing environment. The need to protect and maintain such an environment is a human responsibility and the role of information, awareness and education building is one means of meeting this responsibility.

Our future rests on belief that, human behavior matters and that human behavior can change to more sustainable patterns. As humans, we appear not only able to recognize the damage we are doing, but also at least in isolated cases, to change repro-

ductive and consumptive behaviors towards more sustainable patterns. Therefore, in order to address the world's complex environmental problems, we have to motivate public participation in caring for the earth, while meeting the development needs of the people.

2. Current Status of Awareness Building, Education, and Access to Environmental Information in Uganda

The National Environment Act Cap 153 establishes the National Environment Management Authority (NEMA) as the overall body charged with the management of environmental issues in Uganda. NEMA in consultation with the relevant authorities and stakeholders collects, compiles and disseminates environmental information and builds capacity in education and awareness in the country with the view of preventing and controlling environmental degradation. Various ways have been used in Uganda to disseminate environmental information awareness for example Training materials, Environmental guidelines for example sectoral guidelines like EIA guidelines for Uganda, NEMA Newsletters, notice board, brochures, District state of Environment Report, National state of Environment report, Television, Radios News papers, public lectures, seminars, workshops and various regulations ¹

In November 2003, a group of policy makers commissioned by UNDP AEIN (Access to Information Network) to study access of information in Uganda found commendable and progressive opening of the policy space to other stakeholders and the involvement of local governments in the policy process in Uganda. However, most key stakeholders outside government remain constrained by the inability to access essential information on the policy and legislative agenda, especially in the early stages of agenda setting and framing of policy and legislative issues. There is little evidence that stakeholders outside central government agencies are involved in agenda setting. There is a tendency by government agencies to encourage public participation in the policy and legislative processes purely for purposes of ensuring quick endorsement of the policy by Cabinet and smooth enactment of environmental legislation by Parliament. Research institutions are not optimally engaged in the

¹ Regulations developed so far include: - The National Environmental (Wetlands River Banks and Lakes Shores Management) Regulations 2000; The Environment Impact Assessment Regulations 1998; The National Environment (Standard for discharge of effluent into water or on land) Regulations 1999; The National Environment (Designation of Environment Inspectors) Notice 2000 - Legal Notice 5 of 2000; The National Environment (Hilly and Mountainous areas Management) Regulations 2000 Supplementary. 1-2000; The National Environment (Waste Management) Regulations 1999; The National, Environment (Minimum Standards for Management of soil quality) Regulations s .I 159 of 2001; The National Environment (Management of Ozone depleting substances and Product) Regulations 2001. S.163of 200; The draft National Environment (Noise Pollution Control Standard) Regulations 2001; The draft Regulations on Oil Spillers 2004; and The draft Regulations on Solid Waste Disposal 2004.

policy process. Government agencies make efforts to use consulting firms to generate the information needed for policy and law making. However, those efforts are being constrained by the scarcity of data in the national statistical system as well as the difficulties that the actors in the “sector” have had in adopting a common strategy towards a sector-level information system and how best to enhance the visibility of ENR issues in the budget process.

3. Achievements so far

a) Increased Knowledge about the Environment and its components: - Sensitization and awareness campaigns have made individuals aware of their responsibility for the environment and have created solid base for environment policy in the community. NEMA is now a household name, synonymous with the environment. Environment Education has been added to the curriculum of all levels of education. The Ministry of Education has prepared and tested classroom materials that incorporate environmental elements in existing and new courses for primary and secondary schools. The Ministry has also organized workshops to elaborate policies, and train teachers and extension workers. Collaboration with NGOs and variety of awareness raising initiatives has proved valuable. For example different green schools projects² have been set up in various schools in Uganda. Weekly Uganda Television talk shows on environment have also enhanced public awareness.

b) Increased Awareness of Regulations and Fragile Ecosystems:- Most Ugandans are now aware of the various environmental regulations. All regulations are gazetted and published in national and local newspapers. They are also published in most local languages. More needs to be done to ensure that the content in the regulations is fully internalized by all stakeholders.

There is also increased understanding of how their activities, especially agriculture, affect fragile ecosystems. This has resulted in less environmental degradation, reclamation of lost ecosystem where possible and reversal of degradation of natural resources. For example, a couple of NEMA adverts on various regional radios like Radio West in Western Uganda, Radio Paidha in Northern region, Radio Kira in Eastern region and Capital radio in the central region have resulted in a change of perception on ecosystems management. Most farmers in these regions now recognize the importance of observing the “no encroachment zones” on lake shores and riverbanks³. Advertisements on solid waste management which emphasize proper disposal of carrier polythene bags have also led to behavioural changes. Garbage

² Green school projects entail tree planting and nursery management.

³ The Regulation on Wetlands, Lake Shores and Riverbanks states that two hundred meters from the Lakeshore and Fifty meters from the River bank are “no encroachment zones”

sorting and recycling are now common especially amongst City council waste areas. There is need for more outreach in rural areas.

c) Environment is mainstreamed in Development Plans at local, regional and national levels:- At the lower levels, planning enables policy makers to take into account the peculiarities of a locality and circumstances. At the national level, the larger picture is taken into account. Planning is a periodic exercise, which enables revision to take into account lessons learned and to concretize the gains realized. The most concrete tools for planning at the lower levels in Uganda include the Parish Environment Action Plan (PEAP), Sub county Environment Action Plan (SEAPs), and the District Environment Action Plan (DEAP). All these plans now have a component of environment management. Environment management has been decentralized placing authority in districts, sub country, parish and local council. The local councils have been the most vocal, for example, the local environment committee ensures that no one cuts trees without their consent. There is, however, more room for improvement in the implementation process.

d) Increased environmental compliance in the private sector:- Industrial facilities in Uganda engage in a broad range of activities that have significant implications for the long term sustainability of national economy and the health and well being of communities. Facilities engaged in the extraction, processing and manufacture of products often generate waste and pollute the biosphere. Government agencies spend a lot of money and staff time monitoring environmental performance and compliance requirements of these facilities. Therefore facility level information is important since it would promote independent monitoring of industrial and other facilities. Information about facilities is currently obtained through Environmental audits, and most audit reports show that industries are increasingly aware of how their activities affect the environment. Members of the Uganda Manufacturers Association (UMA)⁴, with assistance from NEMA, have been sensitized in key concepts sound environmental management. UMA is also in the process of creating a database of all raw materials used by their members. It is hoped that this will be followed by information on waste produced by each firm.

UMA in partnership with the Uganda Cleaner Production Center (CPC) Eco-benefits program have trained and worked with industries to prepare them for ISO 140001 certification. Through this program industries are trained on the most efficient and environmental friendly way of producing and processing of goods and services. However, more needs to be done. Industries need to voluntarily publish relevant data on their activities and how their affect the environment. This will enable regulatory and monitoring authorities such as NEMA to evaluate their compliance status and provide proper guidance.

⁴ The Uganda Manufacturers Association was established in 1960 to promote, protect and co-ordinate the interests of industrialists in Uganda and to advise Government on key policies affecting industry. For more information visit [http:// www.uma.co.ug](http://www.uma.co.ug)

e) Increased community participation in environmental management :- Communities around the country have partnered with NGOs to organize sensitization and awareness programmes which are intended to help people learn about and care for the environment, and give some understanding of the influences and experiences which develop pro environmental behaviors. These programs assist community leaders faced with the increasingly complex task of helping their communities decide how best to protect the environment by assuming benefits now, as well as for generations in the future. The District State of Environment Reports⁵ provide an entry point for communities to inform the public about their activities and encourages even more participation. The District monthly reports to NEMA also provide an opportunity for environmental reporting and enable NEMA to assess how the district planning departments are integrating environmental concerns in their policies and budgets and assess where technical assistance may be needed.

f) Increased data for sound environmental policy making:- Another goal of environmental information and education is to generate data with far reaching implications for sound environmental policy making. NEMA's National State of the Environment Report is rich with data on how different segments of the environment are managed at the local, regional and national level. The data can serve as a starting point for academic research for all those engaged in planning and implementation of policies for environmental protection, and solving environmental problems at both national and local community levels. NEMA is giving material and technical support to some districts to develop their DSOER.

NEMA Environment Information Network (EIN)⁶ Department also produces maps on land use, biodiversity, climate, and so on. The Maps are powerful tools for conveying information on state of environmental resources and through them policy makers, district leaders and officials appreciate better the nature of the environment and natural resources problems at hand. There is need to introduce this capacity at district level so that maps developed by the various districts can guide and facilitate decision-making during policy, legislative, planning and budgeting processes at the district level.

Furthermore, NEMA's Handbook for local leaders - *Caring for Our Environment* has become a tool for sound environmental management in local communities. The

⁵ The National Environment Statute mandates NEMA to produce a National State of the Environment Report (NSOER). The report is produced every two years. The District State of the Environment Report (DSOER) is a smaller version of the NSOER but focusing on environmental activities at district level.

⁶ The main objective of the EIN is to enhance the capability of key environmental data producers to exchange data and information in compatible formats and at minimal time and cost. It provides a forum for communication on a range of technical, institutional and policy issues relating to the availability, dissemination and use of environment information. See http://www.nemaug.org/envi_in.htm

handbook integrates lessons drawn from community participation and communication planning, which gives managers an accurate idea of the perceptions of communities and individuals towards purposed courses of actions towards reversing/controlling harm on the environment.

NEMA successfully lobbied the Uganda Bureau of Statistics (UBOS)⁷ to use their Integrated Household and Monitoring surveys to improve on the availability of statistical data on environment and develop and apply a minimum set of environmental indicators for tracking progress in environmental sustainability and construct and apply a sustainability index to track national and district environmental performance. In July 2004, UBOS launched *UgandaInfo*,⁸ a database of key indicators for monitoring progress towards social development and poverty eradication. The database was built in conjunction with UNICEF and other government agencies. NEMA submitted environmental indicators that were added to the database.

A lot more needs to be done to improve the data collection and dissemination methods so that all sectors of the society not only receive the data, but also contribute to the data. Data on environmental indicators is rather complex and hard to collect therefore coordination between NEMA, UBOS, and other relevant entities is paramount.

While there is clear indication that some stakeholders currently reference the national state of the environment reports (NSOER), if they are to impact on the environmental policy and legislative processes, it would be beneficial to develop specific tools such as maps, policy and thematic briefs from the NSOER for purposes of enhancing stakeholder engagement in policy and legislative dialogue. Lead agencies⁹ and districts should be supported to computerize the available essential data sets in their annual reports on environmental performance and DSOER, and effectively use the information in decision-making and avail the information to other users. The wealth of data collected should also be computerized, where possible. Similarly, where GIS facilities have been provided, especially to districts, they should be optimally used for the production of information that facilitates decision-making. More financial support is needed to enhance and promote environmental information and education campaigns.¹⁰

⁷ The Uganda Bureau of Statistics (UBOS) is a government agency mandated to produce, coordinate and disseminate official economic statistics. For more information see www.ubos.org

⁸ *UgandaInfo* is a socio-economic database which provides the Uganda Government with comprehensive, timely and reliable data for policy development, planning and monitoring. For more information visit www.ubos.org/ www.unicef.org

⁹ Lead agencies, as defined by the National Environment Statute, constitute any government agency, parastatal body, private sector organizations or individuals that are mandated to manage a certain segment of the environment. The statute further mandates the lead agencies to report to NEMA on how they are managing their respective segments of the environment.

¹⁰ NEMA has given technical assistance in the form of GIS facilities to some districts.

g) Increased environmental sustainability through monitoring, evaluation, and quality assurance - Government, NGOs, communities and individuals continually evaluate environmental performance of their projects. For example, Kasese Cobalt Company Ltd (KCCL) and the National Water and Sewerage Cooperation (NW&SC) were chosen as case studies for assessing the comprehensiveness of monitoring effort of water quality and the distribution and accessibility of monitoring information. KCCL is a cobalt plant, which extracts and processes cobalt from 2 pyrite stockpiles in Kasese district, about 400km from the Kampala city. It is also engaged in hydropower generation, cobalt processing and limestone quarrying. KCCL was granted a permit to discharge waste water into Rukoni River. This river provides water for domestic and livestock use and drains into Lake George, an important source for eight neighboring villages. The KCCL permit requires the company to undertake regular and consistent monitoring of water quality parameters for at least 3 years. The assessment found that KCCL has a comprehensive water quality monitoring programme covering physical and chemical parameters.¹¹

In addition to the above, the Local Government has developed environmental performance indicators for all their projects in the districts. The Ministry of Finance, in partnership with NEMA, has now included an environment performance measure on their scorecard for non-conditional grants for all projects. It is however, not enough to have all these measures in place. There is need to follow up and ensure that they are implemented.

h) Increased Corporate Social Responsibility: Environmental accidents or acts of negligence certainly attract more publicity than good or improved environmental performance but the credibility gap is also based on negative experience of past industry performance and certainly concerns about the current activities. Corporate environmental reporting enables the public to know that companies are undertaking environmental audits and investment required to switch to products and processes which cause less harm to environment and that they are putting in place practices to improve their environmental performance with existing products and processes. There is an effort by companies to be more transparent. Examples include Shell Uganda, and British American Tobacco (BAT) which have gone out of their way to publish corporate social responsibility reports. NGOs have also pressurized the companies to comply with the laws by monitoring the environmental performance and challenging them to improve it. They supplement governments' efforts to ensure that all companies comply equally with environmental laws, regulation and standards.

¹¹ Section 26 of the NES 1995, provides that NEMA shall, in consultation with the lead agencies, establish among other things criteria and procedure for measurement of water quality and minimum water quality standards for different uses.

3. Way forward

The time is ripe for use of new access to information tools in Uganda. Disclosure tools that empower the public to hold businesses accountable for their environmental performance would be a good way to start. For example, public information about an industrial facility's emissions gives NGOs and community groups the ammunition with which to pressure the worst polluters to improve, and helps government inspectors do their jobs more efficiently. Work place inspections in Uganda, for example, have so far been hampered by lack of information or knowledge on what inputs are being used in industries, factories, workplaces etc ¹². Information about a company's practices in handling toxic chemicals or managing hazardous wastes helps investors avoid companies whose operations or products might expose them to major liabilities, government fines, and expensive lawsuits. Pollution registers¹³ are a good example of disclosure tools that could be used to provide information that interests and empowers citizens, investors, and reporters. For communities with the capacity to organize themselves, this data can provide a useful bargaining chip to pressure companies to reduce emissions from local factories. As Uganda has decentralized environmental management, such information could empower the local environment committees to press for sound environmental management within their jurisdictions. There are efforts being made by the Ministry of Local Government to popularize its policy and laws as a means of encouraging compliance. This opportunity needs to be seized to convey critical environmental information that could help the lower governments to improve planning and budgeting for the environment and natural resources. Once convinced of the benefits of doing do, the lower local governments could in due course constitute a useful environment lobby that complements the efforts being made at the national level to enhance the visibility of environment and natural resources in planning and budgeting decisions.

Just as importantly, disclosure offers businesses potential benefits. A company's efforts to track and disclose its wastes, for example, often leads to insights that can increase process efficiency and cut costs. Some businesses see information disclosure as positive advertising, using environmental certifications or Eco-labels to distinguish themselves from poor environmental performers and to reap rewards in the marketplace. When information disclosure benefits the bottom line in this way; it helps companies develop an internal rationale for making environmentally sound decisions. Recent efforts by the National Organic Agricultural Movement of Uganda

¹² The Department of Occupational Safety and Health Inspection reports cited lack of workplace reports on what chemicals were being used as one of the biggest hinderances to effective inspections.

¹³ The Canadian National Pollutant Release Inventory (NPRI) has been providing communities and consumers with information that they have used to pressure Canadian companies to reduce their emissions. (Antweiler and Harrison 2003:497).

to have their exports labeled “certified organic” will certainly yield great rewards.¹⁴ The process started by UMA to compile a list of raw materials used by all their members is a good start. This will need to be followed up by information on waste produced. NEMA and other regulatory authorities will have to study this information, assess each industry’s compliance status and provide proper guidance.

Corporate environmental reports are another key vehicle that companies should start using to demonstrate transparency on their own terms, and provide stakeholders with select but verifiable information they can use to assess company behavior¹⁵. As the public and private sector in Uganda becomes more involved in environmental management, demand for corporate transparency and accountability is also growing. Further more, the National Environment Statute mandates all lead agencies to submit an annual report on activities taken to improve the environment. As lead agencies start to submit their annual reports, the problem of comparability could become a concern. It is possible that different lead agencies will present dissimilar types of information in various formats, and use different measurement standards, it is virtually impossible to use these reports to compare firms, facilities, or products. To address these concerns, there is a concerted effort underway by the National Environment Management Authority to provide companies with guidelines for structuring their environmental reports. The intent is to encourage companies and customers to see environmental reporting as a standard business practice that is both predictable and trustworthy. These guidelines could borrow from what already exists for example the Global Reporting Initiative (GRI), which offers both general reporting principles and specific guidance to different business sectors so that reports are more standardized, rigorous, and consistent, or the World Business Council for Sustainable Development’s set of indicators for tracking Eco-efficiency.

Companies could also decide to have their reports audited or “verified” by a third party in order to increase confidence in their reporting.

The quality of reporting must also improve so that the information is more relevant and understandable. At the same time, stakeholders must trust the reliability of this information and be able to use it to compare a company’s performance over time and against other standard measures of performance.

All in all, environmental information, education and awareness building have played a big role in bringing environmental problems to the fore in Uganda. The Public is more aware of environmental issues. However, as stated above, there is

¹⁴ For more information, visit the National Organic Agriculture Movement of Uganda website - <http://www.linksorganic.com/minilisting/nogamu>

¹⁵ Some companies like Shell Uganda and BAT have gone far in achieving this end by measuring and reporting on key areas of performance, such as energy use or waste production, while also giving sufficient context to make the information useful.

room for improvement in order to develop long lasting and sustainable solutions to all of Uganda's environmental problems.

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