

ZIMBABWE'S ENVIRONMENTAL EDUCATION POLICY AND THE QUEST FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Zimbabwe's Environmental Education (EE) Policy was promulgated in 2003 after several years of consultation with a wide range of stakeholders. It seeks to promote environmental awareness with a view to changing people's values, attitudes, and behavior towards their biophysical and cultural environments. Its long term goal is to achieve sustainable development (SD) at local and national levels. Although the policy document is quite impressive in terms of its contents, this has not helped the country in its quest for SD. Some of the challenges the country has experienced so far include: under-staffing and inadequate funding of the Environmental Management Agency (EMA), corruption among some of the organization's officials, poverty, scarcity of literature on EE and lack of alternative sources of energy at the household level. In the formal education sector, there is need to focus more on behavior change rather than on scientific knowledge about the environment. Based on information that was derived from literature sources and fieldwork conducted between July and September 2012, this paper argues that the country's goal of achieving SD through EE is not likely to be achieved unless the above challenges are fully addressed.

Keywords: Environment, Education, Policy, Sustainability, Development

INTRODUCTION

EE has emerged in recent decades as a strategy for addressing problems of environmental degradation at global, national and local levels (Chauhan, 2009). The term EE was coined in Paris (France) in 1948 and since then it has gained global currency due to the realization that the Earth is under stress due to human activities, which date back to the beginning of the Industrial Revolution (Palmer, 1998). Its goal is to educate people about their natural and cultural environs with a view to conserving them for the benefit of present and future generations (Miller, 1994). As an educational strategy, EE seeks to inculcate positive attitudes of people towards the environment, resulting in increasing awareness, sensitivity, responsibility and behavior change (Fien, 1995). For this reason, the term environmental stewardship has been coined to refer to people's ability to care for their environment so as to safeguard it against further damage (Palmer, 1998).

Embedded in EE is the concept of SD, a term that has been used to refer to a form of development that is geared to meet the *'needs of the present without compromising the ability of future generations to meet their own needs'* (WCED, 1991:8). Although it was first used in Germany in 1713, the concept of sustainability was popularized by the publication of the Brundtland report on the global environmental crisis in 1987 (Le Grange, 2008). Over the years, the concept of SD has been subjected to much research and debate (Miller, 1994). At least three dimensions of SD have been identified and scrutinized,

namely: ecological, economic and social aspects (Moffat, 1992). Ecological SD focuses on the biophysical components of the environment while the economic dimension addresses issues of production and profitability. The social aspect on the other hand lays emphasis on poverty, inequality and injustice, which prevail in some communities.

During the last two decades, the term education for sustainable development (ESD) has been coined to refer to a new type of education, which marries EE with SD (*SADC Report*, 2006). Although ESD has generated a new zeal to environmental education, it has been criticized for its failure to change people's attitudes, lifestyles and behavior towards the environment (Fien, 1995). In practice, there are three types of EE, which include: education about, through/from and for the environment (Palmer, 1998). The first one seeks to inculcate information, facts and scientific knowledge about the environment so as to enrich the mind *(cognitive goal). The second one uses the environment as both a medium of learning (enquiry and discovery) and as a source of materials for the learning process. On the other hand, education for the environment seeks to transform learners so that they develop sensitivity for the environment thereby enabling them to change their attitudes, values, lifestyles and behavior. According to Fien (1995), this is the only form of EE which has the potential to change human behavior.

Since the colonial era, Zimbabwe has provided EE in various ways. For example before independence (1980), it was presented in the form of conservation education in formal, informal and non-formal institutions (Whitlow, 1988). In primary schools, it was taught as Nature Study. After independence, it has been taught as either environmental studies or environmental science (Shava, 2003). In colleges and universities, it has also been taught as environmental science/studies or EE. This paper seeks to contribute to the on-going research and debate on EE Policy and SD in the country. It seeks to address several research questions, namely:

- a) What are the main features of Zimbabwe's EE policy?
- b) Who are the main providers of EE in the country?
- c) How does the policy seek to achieve SD at local and national levels?
- d) What challenges has it encountered so far and
- e) What implications and possible solutions are there in the country's quest for SD?

RESEARCH METHODOLOGY

The information used in this study was drawn from primary and secondary data sources. The former included existing literature in the form of books, journals and government publications on EE policies and strategies in Zimbabwe. Secondary information provided a theoretical framework for the study while primary data from interviews and questionnaires laid a foundation/basis for the views that are expressed in this paper. The administration of interviews and questionnaires was done between July and September 2012 and it targeted stakeholders of EE programmes such as: EMA, NGOs, schools, colleges, universities, villagers, urban dwellers and the general public. Research assistants were used in the administration of interviews in various provinces. The information collected from secondary and primary sources was analyzed and it provided a basis for the views, which are expressed in this paper.

MAIN FEATURES OF ZIMBABWE'S EE POLICY

Zimbabwe's environmental policy seeks to promote SD through several objectives, which according to GoZ (2009) include:

- a) Conserving bio-diversity and maintaining the natural resource base and its basic processes
- b) Promoting equitable access to resources with a view to reducing poverty
- c) Encouraging SD through optimum use of resources and energy and minimizing environmental damage
- d) Promoting public awareness through EE
- e) Developing an effective institutional framework to promoter environmental sustainability
- f) Implementing international agreements on environmental issues.

The EE Policy document was published in 2003 after several years of consultation with various stakeholders (Shava, 2003).

As a result, it includes views from a broad section of the Zimbabwean society, namely:

- a) The formal education sector such as: schools, colleges and universities
- b) Non-formal and informal education sector with numerous sub-sectors including:
 - Government Ministries, Departments and Institutions
 - Resource, Research and Documentation Centres
 - NGOs, Community-Based Organizations and Community Groups
 - Environmental Education Centres
 - Industry and Business
 - Media
 - Arts and Culture
 - Youth

According to the national policy document the country seeks to achieve the national goal, namely:

‘To make sustainable development a national priority, to take a pro-active role in environmental issues and to respond to environmental challenges facing Zimbabwe at the personal, local, national, regional, and global levels through education and communication processes’ (Zimbabwe National Environmental Education Policy and Strategies, 2003:3).

The policy is based on nine objectives and sixteen principles (Policy Document), which include:

- a) To identify and mobilize resources to support self-sustaining EE activities
- b) To integrate EE in teaching, learning, training and extension programmes in the formal and informal sectors of education
- c) To raise public awareness of environmental issues and promote holistic management of the environment in all sectors of the community
- d) To facilitate the development of knowledge, skills, attitudes and values necessary for environmentally sustainable behavior
- e) To promote SD through the use of all channels of communication
- f) To encourage sustainable livelihoods within communities usually not reached by formal channels of education and communication
- g) To protect and promote the use of indigenous knowledge systems (IKS)

- h) To support private and public initiatives in EE research
- i) To ensure monitoring and evaluation of EE programmes and activities in all sectors.

The sixteen guiding principles, on the other hand include:

- a) Consider the environment in its holistic nature and thus have an inter-disciplinary focus to cover the biophysical, socio-cultural, economic and political elements
- b) Be a continuous life-long process commencing at early childhood learning and continuing through all formal, non-formal and informal stages to develop environmental sensitivity at all stages
- c) Focus research on priority needs identified through a collaborative process
- d) Conduct research with active participation of potential beneficiaries as well as investigated communities
- e) Examine critical local, national, regional and global environmental issues within their socio-economic and historical contexts
- f) Promote the value of local, regional and international cooperation in the prevention of and solution to environmental problems
- g) Consider environmental issues in planning for development and growth
- h) Facilitate equal partnerships and opportunities in the process of decision making at all levels and stages
- i) Empower all people and promote opportunities for grass roots democratic change and participation, thereby enabling communities to regain regional control of their own destinies
- j) Recover, recognize, respect, respect, reflect on and utilize IKS as well as promote cultural, linguistic and ecological diversity
- k) Help learners discover the symptoms and diagnose the causes of environmental problems to enable them to participate actively in sustainable environmental management
- l) Utilize diverse learning environments and a broad spectrum of educational approaches to teaching and learning
- m) Integrate knowledge, skills, values and actions
- n) Value different forms of knowledge
- o) Stimulate dialogue among individuals and institutions in order to create new lifestyles based on meeting everyone's basic needs regardless of ethnic, age, gender, class, physical or mental differences
- p) Transform the mass media into a main channel of information committed to the interests of all sectors of the society.

MAIN PROVIDERS OF EE IN ZIMBABWE

EE in Zimbabwe is delivered through two major sectors, which include: the formal and non-formal/informal education sectors. The formal education sector comprises '*all levels of formal learning from early childhood through tertiary education*' (Zimbabwe National Environmental Education Policy and Strategies, 2003:11). However, to date it has not been introduced at pre-school level even though there are plans to do so in future. In primary schools, teacher's colleges and some universities, it is taught in the form of Environmental Science. At secondary school level, EE has been integrated in subjects like Geography, Agriculture and Science. In some universities, it is also taught at under-graduate level as EE. At all academic levels, EE is geared to impart facts **about** the environment while using the former as a source of knowledge (*education*

from/through the environment). Although it is non-prescriptive in nature, EE in Zimbabwe's formal institutions is guided by nine objectives which include:

- a) To identify and mobilize resources to initiate self-sustaining EE activities. The strategies employed to achieve this objective are:
 - Involving whole communities in the funding of EE projects
 - Managing the environment in a sustainable manner
 - Coordinating and supporting EE networks and processes in and outside the country.

- b) To integrate EE in teaching, learning, training and extension programmes in the formal, non-formal and informal sectors of education. Associated strategies include:
 - Establishing parameters of EE in Zimbabwe in relation to pre-school, primary, secondary and tertiary education
 - Integrating EE content and processes across the curricula at all levels
 - Establishing a task force to audit curricula in terms of EE content and processes from early childhood through tertiary level.

- c) To raise public awareness of environmental issues and promote holistic management of the environment in all sectors of the community. This is also accomplished through two strategies, namely,
 - Linking educational institutions with the local and wider community
 - Building capacity of all educators in EE and environmental management

- d) To facilitate development of knowledge, skills, attitudes and values requisite for environmentally sustainable behavior. The strategies employed to achieve this objective include:
 - Using participatory methodologies and contextualized materials for the development of life skills in EE
 - Tackling local environmental issues using participatory methodology
 - Developing new and strengthening existing EE projects within institutions and the community
 - Managing the local environment sustainably.

- e) To promote sustainable development through the use of all channels of communication. Associated strategies include:
 - Identifying and utilizing available and potential channels of communication
 - Supporting and promoting outreach activities that inform the public about SD.

- f) To encourage sustainable livelihoods within communities not usually reached by formal channels of education and communication. Two strategies are employed, namely:
 - Creating awareness of the sustainable use of the environment within educational institutions and their surrounding communities
 - Developing locally relevant strategies for environmentally friendly income-generating activities.

g) To protect and promote the use of indigenous knowledge systems (IKS). This objectives will be achieved through the following strategies:

- Building on IKS with local communities
- Identifying appropriate aspects of IK and integrate them in the formal education curricula
- Involving local communities in EE programmes in educational institutions.

h) To support private and public initiatives in EE research. Associated strategies are:

- Developing capacity in action research in EE among educators
- Establishing a support system for research in EE at all levels of education.

i) To ensure monitoring and evaluation of EE programmes and activities in all sectors. The strategy employed here is establishing and implementing monitoring and evaluation mechanisms.

It is pertinent to note that each of the above objectives is associated with actions that enable the achievement of specified goals. For example, the last objective is supported by the following actions:

- Defining objectives for EE programmes in institutions and communities
- Conducting monitoring and evaluation workshops on EE for learners, educators and community members
- Supporting on-going assessment of EE programmes in educational institutions and communities
- Producing and disseminating regular reports on monitoring and evaluation in all local languages as well as English.

The non-formal and informal education sector has its own objectives, according to the Zimbabwe National Environmental Education Policy and Strategies (2003). For example, government ministries, departments and institutions are guided by the following list of objectives:

- a) To integrate EE in teaching, learning, training and extension programmes in the formal and informal sectors of education. Supportive strategies include:
- Incorporating environmental issues in the education and training programmes of all ministries
 - Encouraging business and NGOs to incorporate EE in their education and training programmes.

The objective has to be achieved through actions such as:

- Promoting environmental awareness amongst government personnel
- Developing EE programmes for the non-formal and informal education sectors
- Establishing and expanding EE networks and processes among educators, trainers and extension workers locally, regionally and globally
- Gathering and distributing information on environmental issues and EE

- Documenting and disseminating current issues in EE relating to the functions of the various government ministries.
- b) To raise public awareness of environmental issues and promote holistic management of the environment in all sectors of the community. Supportive strategies include:
- Making information on environmental issues, including holistic management, available to the general public
 - Providing a platform for cooperation amongst stakeholders on EE activities
 - Coordinating the efforts of the public and private sectors in disseminating environmental information.
- c) To facilitate the development of knowledge, skills, attitudes and values necessary for sustainable behavior. Associated strategies are:
- Assisting government and local authority employees to develop knowledge, skills, attitudes and values needed to protect and enhance the environment
 - Facilitating the development of knowledge, skills, attitudes and values needed for environmentally sustainable behavior.
- d) To promote SD through the use of all channels of communication. Supportive strategies include:
- Encouraging interaction between and joint planning by relevant ministries in working towards SD in the country
 - Facilitating use of the print and electronic media and the arts in the promotion of SD activities.
- e) To encourage sustainable livelihoods within communities not usually reached by formal channels of education and communication. This objective is backed by three strategies by one strategy, namely:
- Providing and supporting government extension programmes on sustainable livelihoods by all ministries.
- f) To identify and mobilize resources to initiate self-sustaining EE activities. Related strategies are:
- Seeking international funding for self-sustaining EE activities
 - Developing criteria for the funding of self-sustaining EE activities
 - Locating and distributing available funds according to these criteria
- g) To protect and promote the use of IKS. Strategies include:
- Ensuring that Zimbabwean laws concerning intellectual property rights protect stakeholders of IKS
 - Protecting indigenous biodiversity
 - Promoting recognition of the economic value of IKS
 - Building positive attitudes towards indigenous products and practices

h) To support private and public initiatives in EE research. Supportive strategies are:

- Facilitating the cooperation of various ministries in conducting EE research
- Cooperating with other organizations in conducting research.

i) To ensure monitoring and evaluation of EE programmes and activities in all sectors. This objective is backed by two strategies, namely:

- Encouraging self-monitoring and evaluation of EE activities by stakeholders
- Providing a regular overview of the environmental situation in Zimbabwe.

ZIMBABWE'S QUEST FOR SUSTAINABLE DEVELOPMENT

The Ministry of Environment and Tourism plays a key role in the development and implementation of environmental policy in Zimbabwe (Chimhowu, et. al, 2010). It coordinates other ministries and agencies on all environmental issues. Examples include:

- a) The Environmental Management Agency (EMA)
- b) The Parks and Wildlife Management Authority (PWMA)
- c) The Forestry Commission (FC)
- d) The Zimbabwe Tourism Authority (ZTA).

To date there is need for more coordination among these agencies. According to Chimhowu, et. al (2010:60), a major problem is that the coordinating and policy-making unit of the Ministry of Environment and Tourism is quite '*small, usually under-staffed with a myriad of environmental issues to deal with, including international obligations. Generally national level policy makers are often too busy to reflect and learn from experiences on the ground*' .

In January 2007, the Department of Natural Resources (DNR) was transformed into EMA. This was facilitated by the Environmental Management Act (Chapter 20:27), which came into operation in 2002. Although EMA has offices at provincial and district levels, it is seriously under-staffed, with one or two officers per district (Chimhowu, et. al, 2010). Launched during a time of economic crisis, EMA has numerous problems such as the shortage of:

- a) Vehicles
- b) Spare parts, and
- c) Fuel

In most districts, the agency does not have a vehicle and this undermines its operations. Furthermore, low salaries have led to the migration of staff in search of better remuneration. EMA's goal of being independent, dynamic and self-financing is still a long way to go. District councils are responsible for making by-laws and environmental regulations in their areas of

jurisdiction while village assemblies or their headmen are in charge of local resources and their use. They also enforce *'environmental planning and conservation by-laws on behalf of the chief, the district councils and the state'*

Zimbabwe's environmental concern dates back to the colonial era when EE was provided in the form of conservation education, which targeted schools and rural communities (Whitlow, 1988). In primary schools, it was offered in the form of *Nature Study* and later on as *Environmental Studies*, which continued into the post-colonial era. However, since 1994, Environmental Science has been taught and examined as part of General Paper, which also includes Social Studies. At secondary school level, EE is integrated in subjects like Agriculture, Geography and Science with a view to including it in the whole curriculum through curriculum greening (Mbiba, 2003). EE is also offered in teacher training colleges and some universities. Masvingo Teacher's College, for example offers a three-year pre-service diploma course during which students are trained to teach Environmental Science in primary schools. The course imparts learners with scientific knowledge **about** the environment using the former as a resource base at the local level.

At Great Zimbabwe University (Masvingo) it is taught at under-graduate level in the form of Environmental Science (ES) in the Bachelor of Education degree programme (Great Zimbabwe University Prospectus, 2011-2013). Courses taught in ES include:

- a) Philosophy of Environmental Science Education (CES 101)
- b) Fundamentals of Environmental Science Education (CES 102)
- c) Trends and Research in Environmental Science Education (CES202)
- d) Environmental Chemistry (CES203).

In the Bachelor of Arts and Science degree programmes, it is offered as Environmental Education (GES/M 201). The ES syllabus for primary schools is presented in three separate but inter-related segments, which cater for different cognitive levels (ES Syllabus, 1994). They include:

- a) Grades 1 to 3
- b) Grades 4 and 5
- c) Grades 6 and 7

The syllabus covers nine topics, which are taught and examined in every grade (Mhashu, 1996):

- a) Water
- b) Soil, Grass and Grazing
- c) Trees and Forestry
- d) Crop Plants and Animals
- e) Health and Pollution
- f) Energy and Fuels
- g) Weather

- h) Materials and Technology
- i) Landforms and Maps

The teaching/learning process strikes a balance between the acquisition of scientific knowledge and the development of a scientific outlook and skills. While the cognitive level of the pupil is taken into consideration, the environment is used as both a source of learning and a resource for learning activities. ES is not only compulsory but also examinable. The teaching/learning process takes a problem-solving approach, which enables pupils to investigate and find solutions to environmental problems, which they encounter in real life.

During the colonial era, conservation education targeted communal as well as commercial farming areas (Whitlow, 1988). The Natural Resources Board (NRB), a department in the Ministry of Agriculture was the main provider of EE. It targeted three groups of land users, namely:

- a) Black peasant farmers in the so-called Tribal Trust Lands (TTLs)
- b) Large-scale white commercial farmers and
- c) Black small-scale farmers in African Purchase Areas (APAs).

At independence in 1980 racial segregation was abolished. However, conservation remained as a national priority even though it took a somewhat back seat due to the new Marxist ideology, which laid emphasis on education with production (Magadza, 1992). In spite of this relaxation in environmental concerns, the government introduced a tree planting day on the 4th of December every year (Whitlow, 1988).

Zimbabwe's environmental policies have also been influenced by global and regional developments. For example, the launch of the United Nations (UN)'s World Conservation Strategy (WCS) in 1980 led to the establishment of the country's National Conservation Strategy (NCS), a document which was promulgated in 1987 after years of preparation (Lopes, 1996). The aim of the WCS was to conserve the biosphere and three organizations led to its formation (Palmer, 1998), namely:

- a) The International Union for the Conservation of Nature and Natural Resources (IUCN)
- b) The United Nations Environment Programme
- c) The World Wide Fund for Nature (WWF).

The goal of Zimbabwe's NCS was to '*integrate sustainable resource use with every aspect of the nation's social and economic development and to rehabilitate those resources, which are already degraded*' (Lopes, 1996:168). However, none of the recommendations of the NCS was ever implemented due to the country's lack of political will, institutional and budgetary constraints (Bengtsson, 1996). The publication of the Brundtland Commission report on the global environmental crisis (*Our Common Future*) in 1987 also had a strong impact on Zimbabwe's environmental policy. According to Lopes (1996), following the Rio Summit of 1992, it was recommended that government should develop a clear policy on the environment. A decade later, the Environmental Management Act (Chapter 20:27) of 2002 was launched (Gandiwa, 2004). The new Act, which fell under the Ministry of Environment and Tourism, would have three characteristics, namely:

- a) It would be developed through a consultative process

- b) It would take cognizance of issues of special interest such as the needs of remote communities and those of industry, and
- c) It would be based on the country's development needs.

In more recent years, the country has also joined the rest of the Southern African Development Community (SADC) region in the adoption of education for sustainable development (ESD) as a national policy. This has led to the development of a policy on EE based on the national goal, which is to 'make sustainable development a national priority' (Zimbabwe National Environmental Education Policy and Strategies, 2003). The promulgation of a new legislation on the environment led to the formation of an Environmental Management Agency (EMA) in 2002 (Gandiwa, 2004). As a watch dog agency, EMA seeks to promote SD by monitoring the activities of organizations and communities, which may pose a threat to the environment. This includes: industries, businesses, institutions and ordinary citizens. It also enforces the implementation of environmental impact assessments (EIAs) and provides EE in the form of environmental awareness campaigns. Over the years, EMA has developed literature in the form of pamphlets, posters and a calendar of events for each year (Table 1). In 2010 EMA held '470 fire awareness campaigns throughout the country with a total audience of approximately 96 000' people (EMA Annual Report, 2010:25). However, in spite of this, by October, the total area destroyed by veld fires had reached 1 152 413 ha, about 21% higher than that (950 905 ha) damaged during the previous year (2009). Obviously, EMA's awareness campaigns do not seem to yield positive results among communities, an issue that calls for further investigation.

Table 1: EMA's Calendar for 2012

| Date | Event |
|--------------|---|
| February 2 | World Wetland Day |
| March 3 | Africa Environment Day |
| March 22 | World Water Day |
| March 23 | World Meteorological Day |
| April 22 | World Earth Day |
| May 4 | National Fire Week |
| May 22 | International Day for Biodiversity |
| June 5 | World Environment Day |
| June 17 | World Day for Desertification |
| September 16 | International Day for the Preservation of the Ozone Layer |
| September 17 | Clean Up Zimbabwe Day |
| September 27 | World Tourism Day |
| December 4 | National Tree Planting Day |

Source: EMA Branch Network, Harare

CHALLENGES ENCOUNTERED

Zimbabwe's EE policy is highly comprehensive, detailed and specific. Objectives, strategies and activities are clear, leaving no room for ambiguity at the implementation stage (Shava, 2003). This is not surprising as the country is well known for producing very good plans, policies and strategies (Lopes, 1996). However, it is at the implementing stage that challenges

have been encountered. Information derived from interviews and questionnaires identified several problems experienced at national level. They include:

- a) Under-staffing at district, provincial and national levels. This undermines EE at all levels. At the local level, EE officials especially those from EMA are hardly visible.
- b) Lack of funds to conduct EE campaigns. This is due to the shortage of vehicles and fuel to transport EE officials in their regular duties. This problem has also been noted by Chimhowu, et. al, (2010).
- c) Scarcity of literature to educate the public about environmental issues. This is due to the lack of funds, which are necessary for the production of posters, magazines and other forms of literature
- d) Poverty, which forces some people to depend on the environment for survival
- e) Public resistance from communities, which regard EMA officials with suspicion since they are notorious for using punitive measures such as fines in dealing with offenders.
- f) Corruption among EMA officials who solicit bribes in order to protect some law breakers.
- g) Lack of alternatives for wood fuel as a source of energy. This encourages deforestation in rural and peri-urban areas.
- h) In formal educational institutions (schools, colleges and universities), EE lays emphasis on the inculcation of scientific knowledge (education **about** and **through/from** the environment) at the expense education **for** the environment. Such approaches do not result in behavior change among learners.

IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

Although Zimbabwe has an impressive national policy document on EE (*Zimbabwe National EE Policy and Strategies, 2003*), little has been achieved at the local level. This has negative implications for SD. Evidence of the ineffectiveness of the country's EE policy include:

- a) The prevalence of veld fires in spite of EE campaigns held every year by EMA (EMA's Annual Report, 2010)
- b) Peri-urban deforestation due to the demand for wood fuel (Mapira and Munthali, 2010)
- c) Rampant river pollution in many urban centres (Mapira, 2011)
- d) River siltation due to urban cultivation (Chimhowu,et. al, 2010)
- e) The poaching of wildlife in newly resettled areas (Bond and Manyanya, 2003)
- f) The failure of EE campaigns to change people's attitudes, lifestyles and behavior (Chimhowu, et al, 2010)

In the light of the above facts, it is obvious that the country has a long way to go in achieving SD through EE. Possible solutions for this problem can be suggested, including:

- a) Provision of more funding of EE programmes at national, provincial and district levels
- b) Adequate staffing of EMA at all levels
- c) Providing more literature to the public so that it may be better educated on environmental issues
- d) Expanding rural electrification so as to reduce people's dependence on wood fuel
- e) Restructuring of formal education curriculum so that it lays more emphasis on education for rather than just about or through/from the environment. That way, it may eventually lead to behavior change (Fien, 1995)

- f) Curbing corruption among some EMA officials who are notorious for soliciting bribes from offenders of environmental laws
- g) Improving political commitment on environmental issues at central government level. The lack of political will has been shown by government's failure to conduct Environmental Impact Assessments (EIAs) during its recent land reform programme (Chimhowu, et. al, 2010).

CONCLUSIONS

This paper has discussed Zimbabwe's EE policy in the light of the country's quest for SD. Based on existing literature sources and information derived from the field, the paper identifies the main providers of EE as well as some of the challenges they have encountered so far. These include the under-staffing of EMA, limited funds, scarcity of literature for the dissemination of environmental information, poverty, resistance from communities, lack of alternative sources of energy and corruption among some EMA officials. Within the formal education sector, the focus has been on the acquisition of scientific knowledge about the environment without laying adequate emphasis on behavior change. Although the EE policy document is quite detailed and comprehensive, it is not likely to make a difference unless the above challenges are fully addressed.

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