CHAPTER TWO
THE ENVIRONMENTAL EDUCATION: LITERATURE OVERVIEW

2.1 INTRODUCTION

This chapter will review the literature concerning the principles and guidelines on which Environmental Education practice of international, regional, national and local levels is based.

2.2 IMPLEMENTATION OF ENVIRONMENTAL EDUCATION

In the early 1970s the emerging environmental education movement was given a powerful boost by the United Nations Conference on the Human Environment, held in Stockholm in 1972, which recommended that Environmental Education be recognised and promoted in all countries. This recommendation led to the launching in 1975 by UNESCO and United Nations Environment Programme (UNEP) of the International Education Programme (IEEP) which continued until 1995. The influence of the IEEP and the national and international activities which it inspired, has been widely felt and is reflected in many educational innovations carried out in the last two decades.

The world’s first Intergovernmental Conference of Environmental Education, organised by UNESCO in co-operation with United Nations Environment Programme (UNEP) was convened in Tbilisi, Georgia (USSR), from 14 to 26 October 1977.

At the Inter-governmental Conference, the Tbilisi Declaration noted the harmony and consensus which had prevailed and the unanimous accord on the importance of Environmental Education in the preservation and improvement of the world's environment, as well as in the sound and balanced development of communities (Connect, 1978).
The community supporting Environmental Education worldwide agrees that the Tbilisi Conference was the landmark for the emergence of Environmental Education as an academic discipline.

To understand the history of Environmental Education, it is important to revisit the Tbilisi principles. According to Mosidi (1999), these principles maintain that Environmental Education should:

- consider the environment in its totality, that is, its natural, human-made, technological, socio-economic, cultural, moral, and aesthetic aspects;

- be conducted as a continuous, lifelong process, beginning at pre-school level and continuing through all the formal and informal phases of education;

- be interdisciplinary in its approach, drawing on the specific content of each discipline, thus making a holistic and balanced perspective possible;

- examine major environmental issues from local, regional, national, and international points of view so that students may gain insights into environmental conditions in other geographical areas;

- focus on current and potentially problematical environmental conditions whilst taking into account the historical perspective;

- promote the perception that local, national and international co-operation is valuable and necessary in preventing and solving environmental problems;

- enable learners to play a role in the learning experience and provide them with opportunities for making decisions and accepting their consequences;
• relate environmental sensitivity, knowledge, problem-solving skills and value clarification to every age category, but with special emphasis being placed on environmental sensitivity to the learners’ own community in his/her early years;

• emphasise the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills; and

• utilise diverse learning environments and a broad array of educational approaches to learn and teach about all aspects of the environment. Practical activities and first-hand experience should form part of the learning and teaching process.

The objective of Environmental Education according to the Tbilisi principles is to develop in the world population an awareness of and a concern for the environment and its associated problems. The appropriate knowledge and skills should be taught, whilst positive attitudes, motivation and a commitment to working individually and collectively towards solving current problems and preventing new ones from arising should be inculcated in the population. People should be taught how to evaluate environmental conditions and how to participate in fieldwork studies of the environment.

According to Elliot (1994) as cited by Rauch (2002), Environmental Education encourages reflective and responsible action and students should:

• perceive the environment as a sphere of personal experience;

• examine the environment as a subject of inter-disciplinary learning and research;

• shape the environment as a sphere of socially important action and interaction; and

• accept the environment as a challenge to initiative responsible action.
The academic discipline of Environmental Education and Awareness has been further developed, enriched and reinforced internationally through major conferences, namely: The Environment and Development (Rio de Janeiro: 1992); Human Rights (Vienna: 1993); Population and Development (Cairo: 1994); Social Development (Copenhagen: 1995); Women (Beijing: 1995); Human Settlements (Istanbul: 1996) and World Summit for Sustainable Development (Johannesburg: 2002).

Institutions of higher learning worldwide, non-governmental organisations (NGOs), governments and schools have instituted either faculties or departments of Environmental Education. In addition, countries, states and regions have established professional environmental associations. Such associations include the Georgia Environmental Association (Georgia State, USA), the Australian Association of Environmental Education (Australia), the Environmental Education Association of Southern Africa (southern African region) and the North American Association of Environmental Education (North America). These associations provide a forum for exchanging ideas to enrich the field of Environmental Education.

2.2.1 Implementation of Environmental Education in South Africa

As in the rest of the world, the principles of the Tbilisi Inter-governmental Conference on Environmental Education in 1977 influenced the development and paradigm of Environmental Education in South Africa.

For many years, Environmental Education was regarded as synonymous to Conservation and Nature Study (Ballantyne & Uzzell, 1993) as cited by Mosidi, 1998. It amounted to curriculum glut with disjointed and fragmented experiments.

At that stage, environmentally related aspects were limited to school subjects such as biology and geography, which contribute to an understanding of nature and its processes. Although not officially included in the school curriculum then, many environmental activities were taking place in the schools, especially in those catering for the middle to
higher-income groups, and in those schools in some of the former homelands, for instance, the former Bophuthatswana, where Environmental Education formed part of the school curriculum. Some institutions of higher learning introduced Environmental Education, either as an elective module at the third-year level of a undergraduate, or as a field of learning at the post-graduate level.

According to Mosidi (1999), the Department of Environmental Affairs and Tourism has been committed, from the beginning, to initiate and drive the process of introducing Environmental Education into educational institutions and to the general public. On the other hand, the Department of Education has been reluctant to commit itself to Environmental Education as it regards this type of education as the proliferation of subjects in the curriculum.

For the first time, in March 1997, when the National Minister of Education launched Curriculum 2005, Environmental Education constituted part of the school curriculum. Believing that the route to environmental sustainability would be achieved through education (Mosidi, 1999), the Department of Environmental Affairs and Tourism provided the necessary resources, and remained true to its commitment of supporting Environmental Education and environmental initiatives. According to Professor Kader Asmal, the Minister of Education (as cited by Department of Education, 2000) schools can contribute by being active learning environments. Active learning in a healthy environment starts with a sound school infrastructure.

One of the main themes to be taught when Curriculum 2005 was implemented in January 1998, was the environment. Thus the Environmental Education community had witnessed the fruits of its labour. The question remains, however, whether teachers will be able to cope with Environmental Education as well as Outcomes-based Education, as Van Rooyen (1998 in Mosidi, (1999:43)) rightfully states “there exist among many South African educationists a distinct lack of understanding of the nature of Environmental Education and of the implications for its incorporation in the school curriculum”.

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2.2.2 Attempts by the Department of Agriculture, Conservation, Environment and Land Affairs (DACEL) to promote environmental awareness

According to the Department of Agriculture, Conservation, Environment and Land Affairs (DACEL) (2002), the vision of the Gauteng Directorate for the Environment is to create a safe and healthy environment for the people of Gauteng. Their Mission is to promote environmental sustainability and an improved quality of life by contributing to a safe and healthy living environment.

According to the sub-directorate, under the item, ‘Environmental Education and Awareness’, the mission aims to promote a high level of awareness and public support around environmental issues. The key focus areas are:

- adaptations and changes to the school curriculum to ensure that the environment becomes the primary field of study;
- awareness programmes that change public attitudes and actions;
- to develop an environmental communication strategy that targets certain sectors of the public;
- to promote effective public participation with respect to undertaking activities that impact on the environment; and
- capacity development within local authorities.

According to Mbanjwa (2002), DACEL’s attempts are aimed at instilling environmental awareness and building capacity in terms of environmental participation in the community as a whole. This is done by advising the Department of Education on the Environmental Education curriculum, placing advertisements in the media, organising workshops, campaigns, school competitions and meetings with NGO’s and councillors,
using nature reserves as centres of learning, and supporting and developing eco-clubs and community-based programmes.

2.2.3 ‘Bontle ke Botho’ (being beautiful is being human): Gauteng’s ‘Clean and Green’ campaign

As part of Gauteng’s initiatives around the World Summit on Sustainable Development (WSSD), that was held from 26 August to 4 September 2002 in Johannesburg, Gauteng’s Department of Agriculture, Conservation, Environment and Land Affairs (DACEL), together with the Department of Education, the Department of Development Planning, and the Department of Provincial and Local Government launched the ‘Bontle ke Botho’: Cleanest Town, Cleanest Ward and Cleanest School competitions on 18 February 2002. The main thrust of this campaign and the competitions was to strive to create a beautiful environment for people to live in and a better quality of life for all. This was done by encouraging and rewarding the efforts of local authorities and schools in the cleaning and greening of their immediate surroundings. By linking the environment and greening interventions with social and economic well being, these competitions have already directly demonstrated sustainable development in action in the run-up to the summit and will continue to do so beyond it.

According to DACEL (2002), it has often been said that we do not inherit the earth from our parents, but merely borrow it from our children. Only by bringing about perceptual and behavioural changes in individuals, and in collective action in all sectors of our society, can we begin to safeguard the future of our children. Too many people living in Gauteng, live in environments, which are degraded and demeaning to our humanity. We do not have the entitlement to leave to the future generation a heritage where the levels of waste, pollution and the result degradation are far worse than they were when we initially 'inherited' this part of the world.
The ‘Bontle ke Botho’ campaign is therefore a call to all people living in Gauteng to involve themselves in improving their living environment. This will ensure that we leave a legacy that we can be proud of to the next generation (DACEL, 2002).

The above literature on Environmental Education shows that attempts to improve Environmental Education practice have been made at international, regional, national and local levels. To investigate the impact of all these attempts, data on the impact of Environmental Education on environmental awareness levels of Grade 9 learners in Soweto schools was collected and analysed.