

Enviroteach Project and Environmental Education in Namibia

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Introduction

Following the independence of the country in 1990, education in Namibia went through a major change and curriculum reform is part of this changing process. In the early years of educational reform, environmental education was implemented within the Namibian formal education system. This was after the Enviroteach (Et) project (see later) has started.

What is Environmental Education?

There are many perspectives to what environmental education (EE) is. It can be defined as a field of study, which includes knowledge about the environment, skills on how to manage it appropriately and addresses values, which encourage good management. In terms of Namibia's draft policy for environmental education, EE is defined as:

the process of developing environmentally literate citizens who are aware and concerned about the total environment and are empowered through knowledge, attitudes, motivation, commitment, skills and shared decision making to individually and collectively achieve an improved quality of life through the sustainable use of and appropriate developments of Namibia's resources.

The importance of Environmental Education in Namibia

Namibia is the driest country south of the Sub-Sahara. Its environment is semi-arid, and fragile, yet where the majority of the population (approximately 70 %) is dependent upon this land for living. Countries such as Namibia need careful and sensitive management to sustain its environment for present and future generations. Prior to Namibia's independence in 1990, many of its people lacked appropriate skills and knowledge for sustainable living. This led to some cases of environmental mismanagement where in certain areas of the country, environment degradation and habitat destruction such as deforestation, wastelands and bush encroachment (to mention just a few) are clearly visible. The most likely factor contributing to this damage came from the colonial legacy of South Africa of the land distribution where 80% of the population in Namibia live on 20% of the land and 20% of population predominantly white commercial farmers own 80% of the land. Immediate attention was therefore needed to create an environmentally literate nation, which understood the consequences of the past to try and take necessary action to live sustainably for the benefit of the present and future generations. Namibia is fortunate to have a government that is aware of the wise use of, and its sustainable development for the environment. Article 95 of the Namibian Constitution states:

The State shall actively promote and maintain the welfare of the people by adopting inter alia policies aimed at.... maintenance of ecosystem, essential ecological process and biological diversity of Namibia and utilization of living natural resources on a

sustainable basis for the benefit of all Namibians, both present and future, (Constitution of the Republic of Namibia, Article 95 (I)).

The president of the country Dr. Sam Nujoma further supported the constitution by declaring at the Rio Conference of 1992, that all people of Namibia be provided with access to environmental education through both formal and non-formal education. Thereafter, the Ministry of Education pledged to make environmental awareness one of its stated goals. The pilot curriculum guide for formal basic education lists development of environmental education and population awareness as a specific aim (3.10), and promotes the development of understanding, responsibility and practical involvement in striving towards ecological sustainability and improved quality of life (Squazzin, Enviroteach: DRFN)

The implementation of Enviroteach Project in Namibia

Enviroteach (Enviroteach) is an environmental education program of the Desert Research Foundation of Namibia (DRFN). It is one of the project that is spearheading environmental education issues in Namibia. The project received a substantial financial support from the Swedish International Development and Co-operation Agency (SIDA) within the agreement of Namibia's Ministry of Education and Culture (now splits into the Ministry of Basic Education and Culture (MBEC) and the Ministry of Higher Education, Vocational Training, Science and Technology (MHEVTST). The project works closely with the National Institute for Educational Development (NIED) in addressing the environmental education issues.

NIED is a directorate within the MBEC that is spearheading the reform of the formal education system. NIED responsibilities are ranging from evaluating, designing and developing curricular materials for the educational system. It is also responsible for introducing effective approaches to teaching and learning, coordinating the development of instructional materials and educational research. It has two main divisions: the Curriculum Research and Development and Professional and Resource Development.

When Enviroteach first started, environmental education was not part of the curriculum, except for a few brief sections in certain "carrier" subjects, mostly geography and natural science (Enviroteach: Pilot Phase, 1998). At this point, DRFN started to explore options for effective incorporation of relevant environmental information into formal education at primary and secondary levels. As a result, an agreement between DRFN and the Ministry of Basic Education and Culture was signed allowing for the introduction of the Enviroteach program within formal education. The Enviroteach's main goals are to address the issue of environmental education through the educational reform process (Enviroteach: The pilot Phase, 1988).

The Enviroteach project has undergone a number of phases, each with its own objectives, but with the overall aim of establishing EE in formal education. At the end of each phase, a formal external evaluation was carried out, evaluating the project and its objectives and investigation if improvement could be made. In the following paragraphs the phases of the project and its achievements are outlined.

The pilot phase: Enviroteach and Basic Education

The project pilot phase was first implemented as three-year program. During the piloting phase the project tested the means and methods for integrating environmental education into the Namibian formal education system. The two main components in which the project focused its activities were resource production and teacher assistance. In order to facilitate these activities, a sample of 25 schools in each 6 educational regions of the country was selected. The sample included both urban and rural schools and between under and adequately resourced schools. Under Resource production, a number of books were developed. They were tested in the schools, revised and modified on continued basis. At the end the pilot phase, ten (10) Enviroteach books, which are Namibia-focused, were produced. The books, which are cross-curricular, focused on a wide variety of the environmental issues. They are written from a holistic viewpoint encompassing social, economic and political aspects of the environment. They are designed as resource manuals rather than textbooks, providing ideas for information, activities, projects as well as methods for implementation. Background information of the Namibian environment was the main focus.

Within the pilot phase, the Enviroteach project investigated approaches in which EE could be best included in the formal education. Two possible solutions were found:

- Inclusion of EE in formal education as a distinct and separate subject; or
- Infusion or integration of EE across the curriculum (Enviroteach: Pilot Phase, 1998)

Before selecting one, the implications of each were carefully studied. Finally, the project chose “the infusion and integration of EE a cross curriculum”. During the time the educational reform was occurring, implementation of this plan more especially teaching in a cross-curricular manner faced many challenges. Amongst the problems experienced during the implementation include:

- the resistance to change on the part of the teachers, school management, learners and parents
- lack of confidence and experience on the part of the teacher
- lack of support from school management who in many instance do not understand new methodology being promulgated through educational reform, and
- lack of relevant, appropriate and user-friendly resources (Enviroteach: Pilot Phase. 1998, p. 16).

The project has also tried to promote the importance of EE by equipping teachers and learners with skills and challenges involved in sustainable learning. This was done in the project’s outreach component, which provided EE materials and assisted teachers on how to use these resource materials. Through the outreach programme, environmental education has been introduced as a cross-curricular theme within the Broad Curriculum. Whilst Et’s mission has been to contribute to environmentally literate society, it has also largely contributed to the reform process by promoting a cross-curricula and learner- centered approaches to teaching and learning.

At the end of the pilot phase, an independent evaluation was completed. Several key players, including the project team, Steering Committee, MBEC and SIDA were interviewed.

The conclusions drawn from the evaluation were that the project could continue in three possible areas, namely continuing with resource production, go into formal education teacher education (curriculum development, in-service, pre-service or schools) or in non-formal education. After exploring all possible options the most effective route for immediate implementation of EE was that of teacher education, specifically in pre-service targeting the four colleges of education. This seemed to have been the right target and the right approach for EE implementation since teacher education was going through the reform process, implementing the new Basic Education Teachers Diploma (BETD) curriculum. This period of implementation was perceived to be the right time, which would reduce the level of resistance to new issues in education. (Enviroteach Phase 2, Evaluation: 1998)

PHASE 1: Investigating opportunities to implement Enviroteach in the Colleges of Education

Before the Enviroteach programme was implemented in the colleges, an investigation on how it could be implemented was carried out. The investigation involved interviews with college rectors, teacher educators, reform facilitators and student teachers. All of the stakeholders contacted supported the idea of implementing the programme into the colleges (Enviroteach Report, 1995). However, there were some reservations from Rectors of the Colleges. The College Rectors were concerned about the lack of appropriate resource and support materials to implement the program, the type or level of support to be given to teacher educators, the lack of qualified teacher educators with regard to environmental issues, time planning within BETD program, and many more.

PHASE 2: The implementation of the Enviroteach programme in Colleges of Education

Following the recommendation of the evaluation team, the programme was implemented in four colleges of education in 1996. The implementation of the Enviroteach programme within the colleges was perceived a sound decision in view of the fact that the colleges as pre-service providers have the potential to spearhead the change process. Hence the goals of Phase 2 were “to sensitize teacher educators involved with BETD and students teachers enrolled for the BETD to environmental issues, and to encourage them to promote learner-centered education, activities-based lessons and cross curricular approaches to teaching using environmental education at all levels of the formal system”. The implementation of the programme brought some curriculum revision as well as introducing a number of cross-curricular initiatives within the college programmes (Enviroteach Phase 2: Evaluation 1998,)

The activities of the BETD outreach programme within the four colleges include conducting seminars through which the colleges were introduced to the Enviroteach programme. The activities also included three main types of workshops namely: *introductory workshops* to introduce the project to the students and college lecturers; *thematic workshop* that incorporate drama as a dimension to teaching and learning within a learner-centered approach; and *learner-centered support workshops* that are geared towards increasing the participants understanding of the Enviroteach resources. Resources including newsletters were disseminated to the colleges’

Rectors, departmental heads and college libraries (Enviroteach phase 2: Evaluation 1998).

Enviroteach Phase 2 was also ended with an evaluation of the project in 1998. This evaluation had both formative and summative role. From this evaluation, the college personnel and student teachers that participated in Phase 2 BETD program workshops appreciated and recognized the value and relevance of the Enviroteach resources. They found Et' s materials as uniquely Namibian materials providing the opportunity to get to know their own country. The materials enable teachers to obtain a broad understanding of their country and its environment from a variety of spheres, from social, political and economic perspectives.

Apart from the positive impact the Enviroteach programme has created among students teachers, there were also a number of concerns that emerged from this evaluation. The aspect of the project's sustainability, more especially in the colleges of education and the ministry/NIED is one of the major concerns. It was learned that little was done to involve teacher educators in the program's activities. (Enviroteach: Evaluation Phase 2, 1998) The evaluation recommended that in the remaining period of the project, the project should focus very heavily on the aspect of sustainability by increasing the sense of ownership to all the major stakeholders involved.

The present mode of the Project: Institutional capacity building

The Enviroteach project is finishing by end of 1999. Within the remaining period of the project, it's phasing out activities are geared towards the transfer of the ownership from DRFN's Enviroteach EE programme to the ministry through the relevant officials at NIED. The links between NIED and the Enviroteach project have not been as strong as in its previous phases. One reason is to the fact that the project had been operating from Windhoek. This made the planning of yearly activities between NIED and the project difficult, that they often collide. It was therefore decided that before the project comes to an end, Et should start to work in close contact with NIED officials, working in partnership. As from the beginning of this year the project started operating from the NIED infrastructures including housing the project advisor and the project staff. The move was made in order to coordinate the smooth transfer of ownership to the colleges and the ministry It is also to enable the project to plan their activities in conjunction with relevant NIED officials and to familiarize them with the Et's activities. The move of the project to NIED is considered important in view of the fact that it is NIED who is expected in the future to take ownership of environmental education activities. Another achievement by the project is the appointment of the EE advisor, to help the Et staff and the Ministry (NIED) to formalize environmental education within the education system.

For the project to achieve the transfer of the ownership of the EE activities to the colleges and NIED, some guidelines between the evaluation team and the colleges were developed. The two colleges Rundu and Ongwediva developed strategies on how they can acquire the ownership of the EE activities as outlined below. These strategies were developed as a result of the evaluation team visitation to the two colleges.

Rundu College initiative

For the sustainability of EE, Rundu College initiated an action research project based on EE themes as cross curricular. This was to be undertaken by the college staff and students teachers while supported by the Enviroteach team. The proposed project was to be developed and implemented by the Rundu staff. The project was intended to provide a model for cross-curricular studies in the college curriculum (Evaluation 1998 p. 48).

The Ongwediva proposal

The Ongwediva College proposed to establish a working group to explore on how the ownership of the project may be best devolves to the colleges. This plan was for teacher educators with the support of the Enviroteach team, through workshops. A committee was to be established to list the needs of all the teacher educators. These were to be forwarded to the Enviroteach project for their assistance.

In the colleges, the project:

- continues holding workshops with student teachers encourage use of environmental themes and activities integrated into Inset BETD modules (and support for students teachers to use these materials).
- encourage and (when possible) funding selected teacher educators to join relevant networking bodies (NEEN, EEASA, and Netwise) to attend and present papers at conferences.

At NIED, the project:

- integrates environmental themes and activities into Inset BETD modules
- integrates environmental themes and activities into Teachers' Guide Appendices.
- investigates approaches to environmental education within SADC region and identifying how they could be adopted in Namibia or how Namibia's approaches could be shared elsewhere (e.g. current Botswanaisation of Namibian materials).

The future of environmental education in formal education

It is expected that when the Et program come to an end, the MBEC through NIED would continue with the EE activities. This might not be within the same capacity as the project is now working. The expectations are in the light that the Ministry by then would have learnt or gained adequate knowledge and experience from the project to continue addressing EE as stated in the pilot curriculum and the BETD broad curriculum. The need for EE has been re-emphasized even in the Presidential Commission that has looked at the state of formal education for the past 9 years. This clearly shows that EE can no longer be looked at as extramural activities.

It is apparent that the Enviroteach project and other NGO involved in EE have a major influence in the development of environmental education in Namibia. Namibian with its population is increasing at the fast rate 3.1 per annum will have a major implications not only on economic and availability of jobs but on environment as well.

In conclusion, as we approach the new millennium, environmental concerns need to be more emphasized due to the challenges of the imbalance between life sustainability and resource use. The challenge that is now facing the Ministry and NIED will be to aim for and ensure the continuous development of EE principles after the project comes to an end.

References

Enviroteach Report, (1995) *Investigation of opportunities for the implementation of the Enviroteach programme in Namibian Colleges of Education*

Enviroteach Phase two: Evaluation June (1998) *A SIDA sponsored EE programme of the MBEC implemented through DRFN's Enviroteach programme*

Enviroteach The Pilot phase: *Reflections on exploring mechanisms for integrated learner centered , cross-curricular, activities based environmental education into basic Education in Namibia*

Enviroteach": projected educational outreach programme of the Desert Research foundation of Namibia. Proposal. 1991

Squazzin, T., Enviroteach: Desert Research Foundation of Namibia.