

**PERSPECTIVES ON THE ENVIRONMENTAL EDUCATION  
TRAINING NEEDS IN SOUTHERN AFRICA:  
The view of the SADC Regional Environmental Education Programme**

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## ABSTRACT

*The world environmental crisis has led to a growing international concern to promote sustainable development. Environmental education is being heralded as one of the foremost responses to the promotion of sustainable development. The Southern African Development Community Environment and Land Management Sector initiated a programme to support environmental education in the region. Among other things, this programme offers various forms of training for environmental educators in an attempt to meet the needs of southern Africa.*

*The purpose of this report is to investigate the environmental education training needs in the southern African region. The research itself concentrates on the environmental education training needs as articulated by participants in, and applicants to, the Southern African Development Community Regional Environmental Education Programme (SADC-REEP).*

*The report documents the establishment of the SADC-REEP and the environmental education training it offers within the context of current thinking on environmental education processes in the region. It then goes on to document the training needs articulated by the research respondents. This leads to a discussion of the articulated needs in relation to the current training offered by the SADC-REEP.*

*The research reveals common themes expressed amongst the research respondents as to the training needs of the region. These themes include such issues as a broader understanding of environmental education processes, networking and the ability to disseminate information. These themes have led to recommendations for the SADC-REEP for the enhancement of their training programmes.*

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## LIST OF ABBREVIATIONS

<b>EEASA:</b>	ENVIRONMENTAL EDUCATION ASSOCIATION OF SOUTHERN AFRICA
<b>EE MAIL:</b>	<i>ENVIRONMENTAL EDUCATION MAIL</i>
<b>ELMS:</b>	ENVIRONMENT AND LAND MANAGEMENT SECTOR
<b>KZNNCS:</b>	KWAZULU – NATAL NATURE CONSERVATION SERVICE
<b>NGO:</b>	NON-GOVERNMENTAL ORGANISATION
<b>REEC:</b>	REGIONAL ENVIRONMENTAL EDUCATION CENTRE
<b>REEP:</b>	REGIONAL ENVIRONMENTAL EDUCATION PROGRAMME
<b>SADC:</b>	SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
<b>SIDA:</b>	SWEDISH INTERNATIONAL DEVELOPMENT CO-OPERATION AGENCY
<b>WCED:</b>	WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT
<b>WESSA:</b>	WILDLIFE AND ENVIRONMENT SOCIETY OF SOUTH AFRICA
<b>WWF:</b>	WORLD WILDLIFE FUND

## PREFACE

I became involved in this research through discussions with key individuals who work at the SADC Regional Environmental Education Centre (REEC). As someone who had studied and taught Geography, I had steadily developed an interest in both the environment and educational processes and had a particular interest in adult education. With this developing interest in environmental education, but with little knowledge as of the processes involved, I became a volunteer at the Umgeni Valley Project, primarily assisting in the development of resource material. At that time, I had no knowledge of the SADC Regional Environmental Education Programme (REEP) nor, in fact, of many of the environmental education programmes happening at the Umgeni Valley Project.

During my voluntary time at the Umgeni Valley Project, I had my first contact with the Rhodes/SADC Certificate Course, while helping 1998 participants with occasional administrative jobs during their stay at the centre. Shortly after this training course was completed, two women from Botswana attended the Attachment Programme at the centre. I had the pleasure of working closely with the one woman as she sought to adapt a resource I had been working on for her own country. This was the beginning of my understanding of the SADC-REEP and, in hindsight, the work was already exposing me to some of the training needs within the SADC region.

Following this volunteer period of work at the SADC-REEC and discussions with Dr Jim Taylor, the SADC-REEP project co-ordinator, and Mr Mike Ward, the SADC-REEP training co-ordinator, it became apparent that further research was necessary to come to a better and more contemporary understanding of these needs. This research has developed out of these discussions and has emerged as a co-operative investigation with the SADC-REEP of current training needs in environmental education in the SADC countries.



## IT'S AFRICAN RENAISSANCE YOU SEE

*Hurray, hurray dawn has come!  
A future yesterday in the sky,  
Finally touches down.  
In anticipation, all and sundry rejoice  
It is the African Renaissance!*

*Nations relook at their values  
Land divisive and shrinking  
Food less and less for the marginalised  
Streets throng with beggars and destitutes  
Vending, hawking and peddling  
Who says what is wrong or right?  
A response appropriate to the time  
It is the African Renaissance!*

*Urbanisation you said is development  
For jobs and all the life you need  
To kill or be killed at will  
Pollution kills - body and soul  
Values you lose, identity you adapt  
All the life you need you have got  
Tomorrow will care for itself  
Yes, that's African Renaissance!*

*Biodiversity in history you have locked  
Museums and archives have got it wrapped  
For posterity innocent to see but never to know  
What a life it was for you!  
When plenty you enjoyed and plundered  
Yet to it you pass  
A future you dread to live in  
With impurity posterity you've mortgaged  
So that's African Renaissance you see!*

*If we are learners and educators that we are  
Responsive and sensitive to needs  
To the environment our very source of life  
On course to African renaissance - I hope.*

(Manuel Farai - 1999 Rhodes/SADC Certificate Course Participant from Zimbabwe,  
as quoted in the *EE Mail* August 1999)



# CHAPTER ONE

## INTRODUCTION

*The knowledge of our ignorance is the doorstep of  
the temple of knowledge (Spurgeon in Ruspantini 1994: 92).*

The background to the study is described in Chapter One, providing an outline of the aims and objectives for the research. The background is substantiated through a literature review which documents the establishment of the Southern African Development Community Regional Environmental Education Programme and briefly considers some recent trends in environmental education within southern Africa. It is within this context that the present research was conducted.

### 1.1 BACKGROUND TO THE RESEARCH

“The 1990s are a time of rising public awareness of the scale, severity and complexity of many environmental problems” (Fien 1995: 3). Some of the problems facing the environment include: “atmospheric warming and climatic change, the destruction of rain forests and threats to biodiversity, accelerating rates of land degradation and desertification, population-resource imbalances, urban decay, nuclear accidents, the disposal of toxic wastes, and a range of other threats to the quality of human life and the sustainability of ecosystems” (Fien 1995: 3).

This growing concern for the environment has led to many world conferences, with governmental and non-governmental organisations looking for solutions to environmental problems. There is a growing recognition for environmental

education as one of the critical responses to the environmental crisis (Rhodes/SADC Certificate Course Core Text Two 1999: 5).

In 1993, the Southern African Development Community (SADC)<sup>1</sup> Environment and Land Management Sector (ELMS)<sup>2</sup> proposed a programme to support environmental education processes in southern Africa (Hertzman 1994a: 22). Workshops were held to investigate the state of environmental education in southern Africa and to develop recommendations to support environmental education within the region. At one of the initial workshops, it was established that there was a lack of environmental education expertise within the SADC region. The workshops further established the need for an environmental education centre, which would be able to provide support to the environmental education process in southern Africa (Hertzman 1994a: 21-22).

The identification of a suitable centre was undertaken by SADC-ELMS (Hertzman 1994a: 22). Following much consultation, the Umgeni Valley Project was eventually appointed as the SADC Regional Environmental Education Centre (REEC) for the SADC Regional Environmental Education Programme (REEP)<sup>3</sup> (Bakobi 1996: 8).

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1 The Southern African Development Community (Acronym SADC) is "a legal inter-governmental institution committed to the equitable and sustainable development of the southern African region. SADC is structurally organised into several development sectors, whose respective co-ordination is entrusted to the government of a specific member state" (SADC-REEC 1998: inside cover). Further explanation of SADC as it pertains to the present research is given in the literature review, page five.

2 "The SADC Environment and Land Management Sector (Acronym ELMS) is hosted by the Government of Lesotho. An important part of the Sector's programme is to increase public information, education and participation on environment and development issues in southern Africa" (*EE Mail* 1998: 2).

3 The Regional Environmental Education Programme (Acronym REEP) is described in more detail in the literature review, page five.

The SADC-REEC has been tasked with the implementation of the SADC-REEP, which states its purpose as: "To enable networking partners, at all levels, to strengthen environmental education processes for equitable and sustainable development in the SADC region, through improved networking, resource material production and increased training capacity" (SADC-ELMS 1996: 1). The objectives of the training component of the SADC-REEP are to develop curriculum and training programmes to enhance training capacity in the region (Grönvall 1997: 6). Two of the training programmes developed by the SADC-REEP are those of the Rhodes/SADC Certificate Course and the Attachment Programme<sup>4</sup>.

Although much training in environmental education has commenced at the SADC-REEC, it is important to continually assess and investigate emerging and developing training needs in the region. This will enable the SADC-REEP to stay abreast with developments and determine appropriate future training opportunities. The SADC-REEP was thus looking to do research into environmental training needs in southern Africa (Ward 1999).

## **1.2 AIMS AND OBJECTIVES OF THE RESEARCH**

Environmental education processes have been widely acknowledged to be important for promoting sustainable development (Fien 1995: viii). As a Programme serving the needs of the SADC region, it is important that the SADC-REEP offers training that is appropriate and responsive to the needs of this region (Taylor 1999).

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<sup>4</sup> These two programmes are discussed in more detail in chapter three and it is applicants to, and participants in, these courses that are the focus of this research.

The aim of this research is to establish what the environmental education training needs in the SADC region are, and how these relate to the training offered by the SADC-REEP.

The objectives of this research are therefore:

- to give an overview of the establishment of the SADC-REEP within the context of current trends in environmental education processes (Chapter One);
- to investigate the current training programmes offered by the SADC-REEP, with particular reference to the SADC/Rhodes Certificate Course and the Attachment Programme (Chapter Three);
- to investigate the training needs in environmental education, as articulated by applicants to the SADC/Rhodes Certificate Course for 1998 and 1999 (Chapter Four);
- to investigate the training needs in environmental education, as articulated by participants in the Attachment Programme and past participants in the SADC/Rhodes Certificate Course (Chapter Four);
- to evaluate these training needs in the light of the current training offered by the SADC-REEP (Chapter Five); and
- to offer some recommendations to the SADC-REEP on what further training is needed and how existing training programmes may be adapted or improved (Chapter Six).

These objectives were progressively addressed through a questioning process. Key questions that were established early on in the research, were:

- Why was the SADC-REEP established?
- What recent trends in environmental education processes are influencing this programme?
- What training in environmental education does the SADC-REEP offer?
- What are the training needs articulated by SADC-REEP applicants to, and participants in, the two-month SADC/Rhodes Certificate Course?
- What are the training needs articulated by the Attachment Programme participants?
- How are these articulated needs being addressed by the SADC-REEP?

### **1.3 LITERATURE REVIEW**

The first task in undertaking this research was to collect all the SADC-REEP documents and reports. These have been reviewed to establish the background to SADC-REEP and the existence of the training offered by the SADC-REEP. Although there are comprehensive reports on the SADC-REEP, there is very little critical or evaluative literature on the programme. The exception to this is a comprehensive mid-term review undertaken by Parker and Murray in July 1999. Although the Parker and Murray report provides a commentary on training needs, the document illuminates the SADC-REEP as a whole and thus provides little specific information on the training needs, as evaluated by this research (Parker and Murray 1999). For the convenience of the reader, a list of all the

SADC-REEP publications is reproduced in Appendix A. Although all publications may not be referenced directly in the text, they were consulted to gain an overview of the SADC-REEP and the training programmes offered.

One further document with major implications for this study is that of Irwin (1998). Pat Irwin, a Rhodes University professor, undertook a large-scale review of environmental education research conducted in southern Africa. This comprehensive document was a valuable source of relevant literature for the present study. Cognizance of this research, however, revealed that few studies focus directly on environmental education training needs within the region (Irwin 1998).

Literature also reviewed for this research is that on the current thinking about environmental education processes in southern Africa. This is important so as to place the research within the context of current thinking in environmental education, especially where it is seen to influence the research.

### **1.3.1 The Establishment of the SADC-REEP**

The Southern African Development Community (SADC) was established in August 1992, with the intention of generating economic co-operation in the southern African region (South Africa Department of Foreign Affairs 1995: 19). The original twelve SADC member states were: Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe, with the subsequent admission of the Seychelles and the Democratic Republic of Congo. These two states, recently admitted to the SADC, are not yet part of the SADC-REEP. (Figure One, page seven, shows a map of the SADC-REEP participatory countries.)



Cartographic Unit, University of Natal, Pietermaritzburg, 2000

**FIGURE 1 SADC - REEP PARTICIPATORY COUNTRIES**



The objectives of SADC are to:

- achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of southern Africa and support the socially disadvantaged;
- evolve common political values, systems and institutions;
- promote and defend peace and security;
- promote self-sustaining development on the basis of collective self-reliance, and the interdependence of member states;
- achieve complementarity between national and regional strategies and programmes;
- promote and maximise productive employment and utilisation of resources of the region;
- achieve sustainable utilisation of natural resources and effective protection of the environment; and
- strengthen and consolidate the long-standing historical, social and cultural affinities and links between the peoples of the region (South Africa Department of Foreign Affairs 1995: 19).

In short, these objectives translate to a regional response in southern Africa to the global environmental crisis. SADC's objectives essentially involve processes to address the environmental crisis and strategies towards sustainable development.

The inception of SADC has offered a way for southern African countries to work together towards alleviating environmental crises in the region in a way that is appropriate to the specific problems of the region. In many cases, natural resources span country boundaries, for example the Kalahari Desert and the Zambezi River. The co-operation of neighbouring states is thus necessary and facilitated through the development of SADC (Bakobi 1996: 1).

Initially comprising twelve countries from southern Africa (Figure One, page seven), SADC was divided into a number of development sectors, each administered by one of the member states. The Kingdom of Lesotho was tasked with the administration of the SADC Environment and Land Management Sector (ELMS). One of the primary goals of this sector is to promote environmental education within southern Africa (*EE Mail* 1998: 2). It was for this reason that SADC-ELMS established a Regional Environmental Education Programme (REEP) to support environmental education processes in SADC and some of the surrounding countries (Leleka 1998: 1).

With the establishment of the SADC-REEP in 1993, an appraisal of environmental education within nine of the member states was undertaken. This led to the holding of the first workshop, in Windhoek, Namibia, in 1994, which was attended by all SADC member states. A second workshop was held at the Umgeni Valley Project in Howick, South Africa, in 1996. The aim of these workshops was to identify the state of environmental education in southern Africa and to develop recommendations on how environmental education processes in the region could be supported (Leleka 1998: 1).

The report from the Namibian workshop highlighted a number of environmental education concerns. These included:

- little policy on environmental education in many of the SADC member states;
- little co-ordination of environmental education activities in the region;
- insufficient environmental education expertise in the region;
- insufficient educational resources for effective environmental education in the region; and
- insufficient use of existing indigenous knowledge in the region (Hertzman 1994a: 21-22).

The Namibian workshop highlighted the need for regional co-operation with regards to environmental education in southern Africa (Seager 1996: 4). One of the recommendations of this workshop was to establish a Regional Environmental Education Centre (REEC), which would have the threefold role of networking, training and material production for environmental education in the SADC region. The decision to establish one centre from which networking could take place was due partly to the limited finances available for the programme. It was also felt that the flow of information would be smoother through one facilitator (Hertzman 1994b: 17).

Identification of a centre, which would be able to provide support to the environmental education process in SADC, was undertaken by SADC-ELMS (Hertzman 1994a: 21-22). Following much consultation, the Umgeni Valley Project was appointed as the regional centre for the SADC-REEP (Bakobi 1996: 8). The Umgeni Valley Project is one of the environmental centres of the Wildlife and Environment Society of South Africa (WESSA). It is situated outside

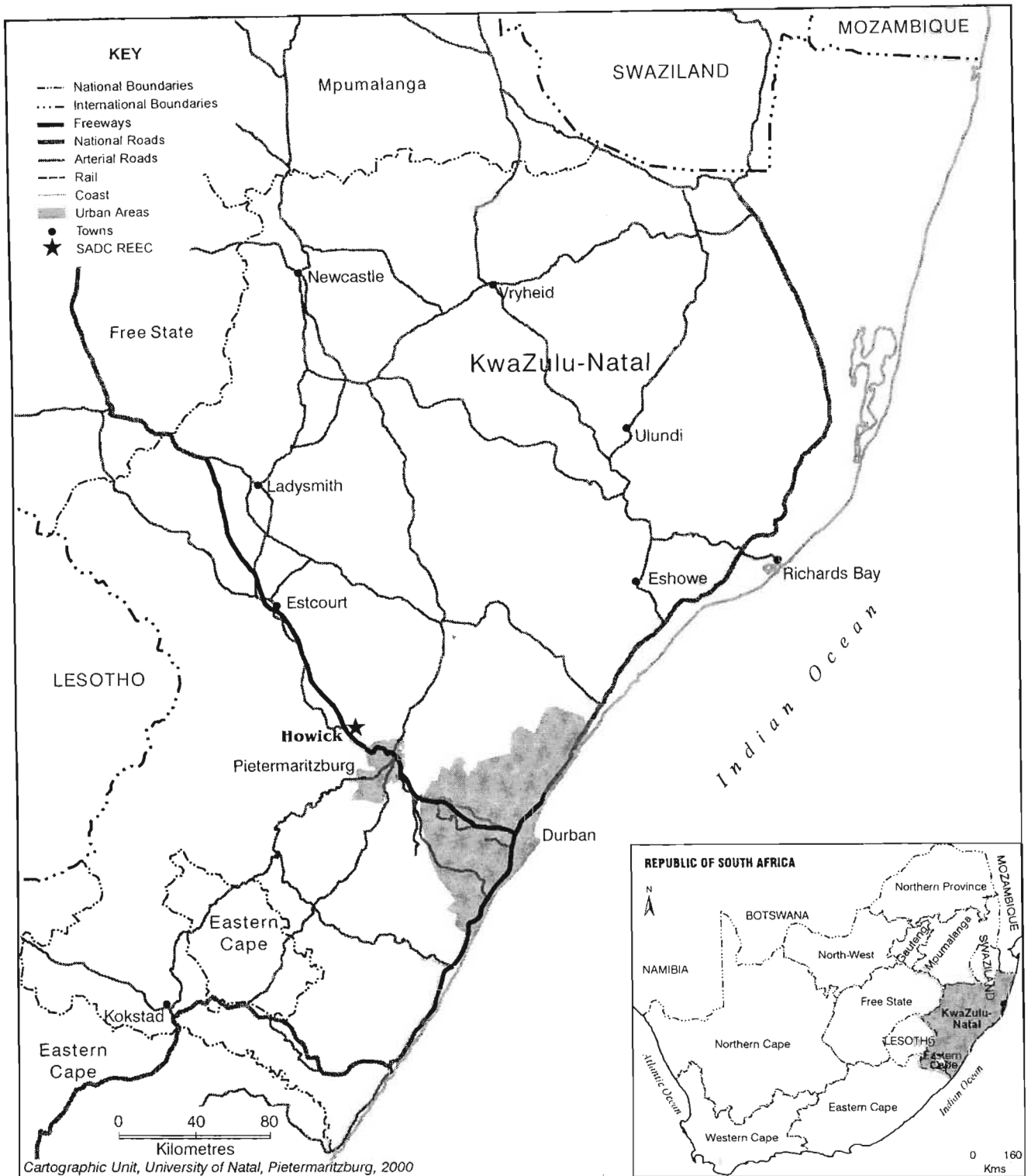
Howick, in KwaZulu-Natal, South Africa (Figure Two, page twelve, shows a map of the location of the SADC-REEC). Although the responsibility of the SADC-REEP is that of SADC-ELMS, the SADC council of ministers decided that WESSA would be responsible for the implementation of the project on behalf of SADC-ELMS (Sida 1997: 3).

The SADC-REEC was established in July 1997 and was tasked with the implementation of the SADC Regional Environmental Education Programme. This programme states its primary objective as: "To enable interaction among SADC environmental education agencies by optimising information sharing and building capacity for environmental problem solving and effective environmental management to achieve sustainable living" (Sida 1997: 5).

The objectives of the training component of the SADC-REEP are to develop curriculum and training programmes to enhance training capacity (Grönwall 1997: 6).

The programme planning document laid out the following objectives:

- Develop, produce and distribute a curriculum framework for environmental education practitioners.
  
- Organise and support workshops to enhance training capacity in the region through:
  - ❖ The Rhodes University/SADC International Certificate in Environmental Education;
  - ❖ National workshops in the member states and
  - ❖ The Attachments Programme (*EE Mail* 1998: 2).



**FIGURE 2 LOCATION OF THE SADC - REEC**

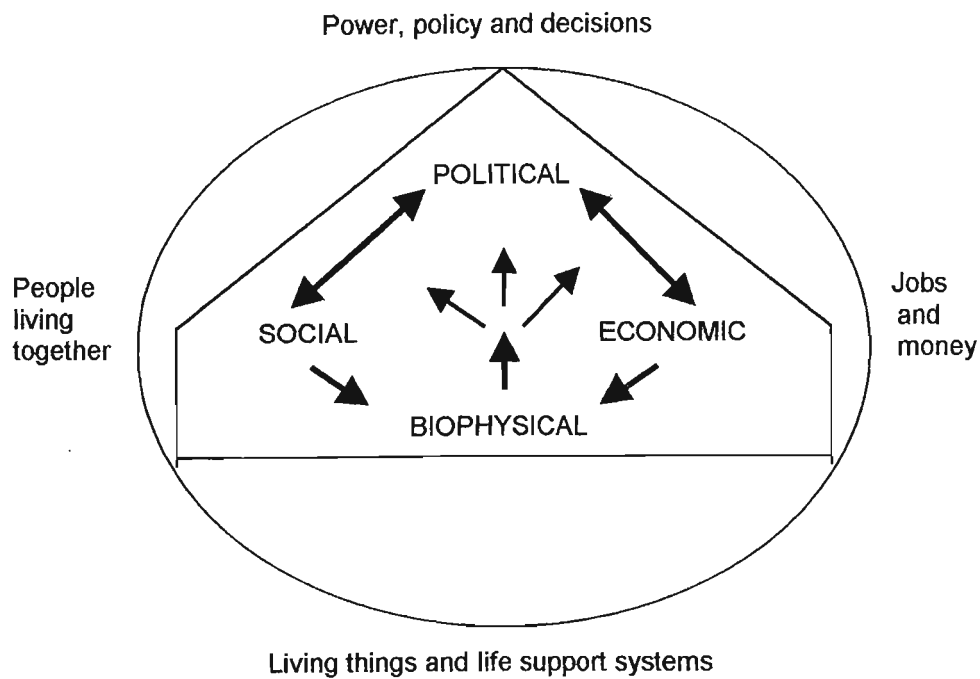
These training objectives have been put into practice and the Rhodes/SADC Certificate Course and the Attachment Programme are up and running. For these training courses to continue to be effective, the needs of applicants to these programmes must be evaluated on an ongoing basis. This research attempts to contribute to the body of literature on SADC-REEP with its evaluation of the needs articulated by applicants to, and participants in, these training programmes.

### **1.3.2 Perspectives on: The Environment**

The environment itself cannot be considered as an “object”, to be outlined and responded to in a prescribed way. Rather, the environment is an individual interpretation of one's surroundings and oneself, according to one's lifelong experiences. The complexity of the environment has only recently been acknowledged. The traditional view of the environment as simply the biophysical elements is being replaced by an understanding of the environment that includes social, political and economic dimensions of the environment (Taylor and Paxton 1994: 7).

One way of defining the environment is “a social construct referring to the interactions between social and biophysical systems” (Fien in Taylor and Paxton 1994: 7). O'Donoghue has developed a four-dimensional model of the environment showing the interaction among the social, political, economic and biophysical arenas. (A diagram of this model is found on page fourteen, Figure Three.)

**FIGURE THREE: FOUR-DIMENSIONAL CONCEPT OF THE ENVIRONMENT**



(O'Donoghue *et al.* 1992: 18)

The biophysical dimension of the environment is evidently in crisis, but modern society reflects inconsistencies and problems in the other three dimensions as well. These problems are particularly evident in southern Africa (Rhode/SADC Certificate Course Core Text One 1999: 6). Bakobi has the following to say about southern Africa: "With the advent of demands for 'better' living and the gross erosion of codes, norms and attitudinal behaviours, the SADC faces serious environmental problems. The concerns in each country may be different but the problems are similar" (Bakobi 1996: 1).

The environmental crisis can be seen as an integration of four global issues, which are:

- **Conservation:** This includes a response to the biophysical environmental problems, such as pollution, and the extinction of species and habitats as a result of the unsustainable use of natural resources on which human beings rely for their existence.
- **Development:** This includes economic problems of world consumption and poverty. As economic growth advances, the gap between the poor and the wealthy grows, with the number of those living in absolute poverty increasing. The use of resources by the poor contrasts radically with the over-utilisation of resources by the rich.
- **World Peace:** This includes the social problems of conflict and violence as a threat to world peace. The stockpiling of nuclear weapons that threaten life on earth compounds this problem. The necessity for countries to protect themselves leads to military budgets that often undermine the economies of developing countries.
- **Democracy:** This includes political problems of human rights and social justice. Many governments are repressive and exploitative for the sake of their own political and economic gain (Taylor and Paxton 1994: 7).

None of these four dimensions of the environmental crisis can be seen in isolation, as each one contributes towards the others. Although environmental problems may have been with us throughout history, their significance is only now being recognised as the problems intensify. This is predominantly due to increased world pollution and the upsurge in technology and industrialisation. Olembo summed up the situation with the following statement as he addressed a regional workshop on environmental education in southern and eastern Africa.



“The growth required to fulfil the basic needs of the world’s population will put a tremendous burden on this planet’s critical life supporting systems. Thus, the rich and poor countries alike face unparalleled problems. Neither can the problems be separated from one another, nor solutions devised in isolation from one another” (Olembo in Lotz 1999: 48).

The environmental crisis can, in many ways, be attributed to modern living. This is not to say that pre-modern society was without problems or that modernisation is all negative. Modernisation, however, has changed the way in which people think and live. This new orientation is something termed modernism. The following four aspects are common to the modernist belief:

- **Materialism:** This involves a pursuing of material wealth.
- **Individualism:** This involves the value of the individual over society.
- **Scientism:** This involves a belief in science as the only answer to humanity’s problems.
- **Technicism:** This involves an unquestioning belief in technical solutions.

In southern Africa, some societies are regarded as "underdeveloped" and not modern. The lack of modernisation in parts of Africa is often given as the reason for the environmental crisis and modernism is frequently sought as a solution to the crisis and as an ideal way of living, that is aspired to (Yeld 1993: 42). However, the resolution of the environmental crisis cannot be approached using the modernistic paradigm that contributed to the problem in the first place. It is for this reason that alternative solutions to the problem are, and must be, sought.

### 1.3.3 Environmental Education

Environmental education has been one of the major responses to the environmental crisis. Education, however, is not a straightforward activity. "Giving people experience in nature, or information, in order to change their behaviour according to a predefined code, is based on the modernist ideal of engineering society through education" (Rhodes/SADC Certificate Course Core Text Three 1999: 7). The solutions offered by environmental education have, however, changed over time, in accordance with a greater understanding of the problem (Taylor and Paxton 1994: 9). Environmental education has taken on a more interactive, responsive approach to education. Previous approaches to environmental education are being seen as "solutions imposed by an informed and benevolent elite" (Taylor 1994a: 22).

One of the initial responses to the environmental crisis was to preserve wild areas by fencing them off. The realisation that this was, in fact, not an adequate process led to the practice of conservation and management of natural resources. As understanding of the environmental crisis grew, it was realised that conservation of natural resources had to take place in conjunction with people. A 1987 report by the World Commission on Environment and Development (WCED), appointed by the United Nations, introduced the notion of sustainable development as a response to the environmental crisis. Sustainable development is the idea that development and conservation can work together. It is defined as development that fulfils the needs of present generations without jeopardising the ability of future generations to fulfil their needs.

One of the problems with this initial view of sustainable development was that development was often interpreted as economic growth. A 1990 follow-up to the 1987 WCED report, mentioned above, introduced a broader view, that is, one of sustainable living. Sustainable living can be defined as "living in such a way as not to undermine the resource base and biotic stocks on which society's future

prosperity depends” (Orr 1992: 23). This view moved away from a ‘one answer solution’ to the problem, to an integrated process of community-based problem-solving. Sustainable living is a global response to the environmental crisis (Janse van Rensburg and Shongwe 1994: 10).

Agenda 21 of the Rio Earth Summit states that: “Education is critical for promoting sustainable development and improving the capacity of people to address environmental and developmental issues” (Lotz *et al.* 1994: 7). As was stated earlier, environmental education has been one of the major responses to the environmental crisis. Environmental education has, however, not been without its weaknesses. Wentworth, the deputy director of Education in Namibia, noted that: “after twenty odd years of environmental education the world still faces the same problems! Has environmental education really failed or does it have inherent weaknesses that have escaped us in our charismatic fervor to ‘get the message across’?” (Wentworth in Taylor 1994b). As an understanding of the environmental crisis has developed, so has the response offered by environmental education changed.

O’Donoghue establishes the following trends in environmental education, which is not to say that the trends are mutually exclusive. Furthermore, although there has been some progression in environmental approaches, later approaches have not necessarily replaced previous approaches. Instead, elements of earlier orientations are evident within developing ideas and perspectives.

- 1970s      **Conservation Education:** Teaching about nature and conservation problems.  
**Show and Tell:** Expert-led fieldwork.  
**Experiential Field Work in Nature:** Free exploration.  
**Environmental Education Centres:** Nature experiences.  
**Values Education:** Experience and clarification.

- 1990s      **Action Research and Community Problem-Solving:** Learner solving problems.
- Empowerment, Sustainability and Social Justice:** Capacity-building, problem-solving and taking action (O'Donoghue *et al.* 1992: 10).

Environmental education can no longer be seen as a subject in isolation, but must be seen as a process of building capacity among people who can then respond to, and act upon, the problems of the environment. "The scope of environmental education thus expands to include subjects from conservation to development of peace and democracy within a developing historical context" (Lotz 1999: 49).

"Environmental problems are not problems of our surroundings, but - in their origins and through their consequences - are thoroughly social problems, problems of people, their history, their living conditions, their relation to the world and reality, their social, cultural and living conditions ... At the end of the twentieth century, nature is society and society is also 'nature' " (as quoted by Lotz 1999: 48). The resolution to the environmental crisis is thus one of social transformation. As education is a response to the environmental crisis it must address the issue of social transformation and must thus be seen as "a range of environmental processes through which we respond to environmental issues in order to foster change in the direction of sustainable community life in a healthy environment" (Lotz 1999: 51).

The unfolding of environmental education is articulated by Yeld: "Previous 'top down' attempts at environmental education based on simplistic attitude change and behaviour modification, have largely failed, alienating the public and causing the so-called 'educators' to be thought of as arrogant. It has therefore become critical that environmental education is conducted in a participatory way, enabling everyone to be active participants in the learning experience" (Yeld

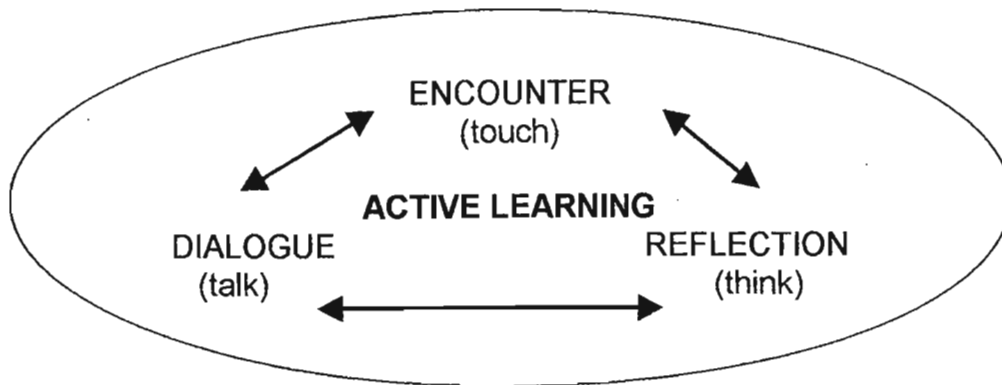
1993: 43). The South African Environmental Education Policy Initiative defined environmental education within the SADC context as follows:

Environmental education seeks to develop the necessary knowledge, understanding, values, skills and commitment to allow people to be proactive in securing a healthy and properly functioning environment that is sustainable (it will still be good for our children). This is as true for people's local environment as it is for regional and global environments (IUCN 1999: 6).

As mentioned above, various orientations to education have been used in environmental education. These orientations reflect different views on the learning process. Current thought on education is for the 'educator' and 'learner' (if one can distinguish between the two) to work together in an interactive process.

In an "open-process" model of learning, O'Donoghue and Janse van Rensburg articulate Dialogue, Encounter and Reflection as an orientation to Active learning (A diagram of this model is found on page twenty-one, Figure Four). This learning process, O'Donoghue and Janse van Rensburg argue, involves the three components of Dialogue (discussion), Encounter (hands-on experience) and Reflection (thinking), so as to "foster greater awareness and meaningful change" (O'Donoghue and Janse van Rensburg: 1995: 7).

## FIGURE FOUR: AN EMERGING PICTURE OF ACTIVE LEARNING



(O'Donoghue and Janse van Rensburg 1995: 7)

Environmental education must be “an ongoing process leading to the development of a southern African population that is aware of, and concerned about, the total human environment and its associated problems, and which has the knowledge, attitudes, motivations, commitment and skills to work both individually and together towards the solution of current problems and the prevention of new ones” (Department of Environmental Affairs, in O'Donoghue 1993: 29). The fact that environmental education is an ongoing process means that the needs within environmental education must be assessed on an ongoing basis. The success of environmental education in the future depends on “the consistency of the ideas behind what is done, the quality of the support, and the development of curriculum which are relevant to teachers, learners, and the community” (Lotz *et al.* 1994: 7). In an endeavour to provide ‘quality support’ within the training component of SADC-REEP, it is important that the training needs of participants be researched and articulated.

## 1.4 CHAPTER OUTLINES: A BRIEF OVERVIEW OF THIS STUDY

**Chapter One** has given the background to the research, the reasons for undertaking this research and the environmental context in which it was undertaken. The literature review gives an overview of the SADC-REEP and some trends in environmental education processes in southern Africa. Chapter One thus addresses the first objective of the research and that is to establish what the SADC-REEP was set up for and what current trends in environmental education are affecting this research.

**Chapter Two** considers the methodology that was used for this research. It gives an account of the 'journey' that was undertaken during the research, documenting the research process, along with its limitations.

**Chapter Three** introduces the two-month Rhodes/SADC International Certificate Course in Environmental Education and the Attachment Programme. It looks at the processes involved during the two-month course, with regards to participants' training needs and the subsequent objectives and curriculum developed for the course. The chapter then goes on to give an overview of the core texts used for the course, giving an indication of the course curriculum.

**Chapter Four** documents the results of the questionnaires and the interviews undertaken for this research. The results of the content analysis of the application forms to the Rhodes/SADC Certificate Course are then considered.

**Chapter Five** discusses the results of the research in the light of the literature review on the SADC-REEP and the training it offers.

**Chapter Six** presents concluding comments of the research and offers recommendations as to possible training needs that the SADC-REEP could consider as it seeks to enhance the training opportunities it offers.

## **CHAPTER TWO**

### **METHODOLOGY**

*One doesn't discover new lands without consenting to lose sight of the shore for a very long time (Gide in Rawlins 1997: 9).*

Chapter Two gives an account of the methodological process used for this research.

#### **2.1 RESEARCH PROCEDURE**

As discussed in Chapter One, the focus of this research is the environmental education training needs within the Southern African Development Community (SADC). These needs are evaluated in the context of the training already offered by the SADC Regional Environmental Education Programme. Chapter One documented the aims and objectives of the research, which determined the methodology for the research. The research process is discussed in Chapter Two.

##### **2.1.1 Research Topic**

The topic of research was developed through conversations with key personnel at the SADC-REEC and through reading literature related to the SADC-REEP, as well as other important commentaries on environmental education processes. It was through these conversations and readings that the need for research into environmental education training needs became evident.



### **2.1.2 Deciding on the Study Group**

A study of the environmental education training needs within the SADC region has the potential to be an enormous task. Such a broad study would clearly be beyond the brief for this research project. It was thus decided to focus on the training needs as they relate to the SADC-REEP. It was felt that the benefit of research into this local project would not only benefit the SADC-REEP itself but also possibly set an example for other environmental education projects in the region. Time and budget resources would not allow for each of the applicants to, and participants in, the SADC-REEP training courses to be contacted individually. It was thus decided that their needs would be assessed as they are articulated within their application forms (refer to section 2.5, page thirty-four) and through interviews, where possible (refer to section 2.4, page thirty-one).

The opportunity to attend the Environmental Education Association of Southern Africa (EEASA) conference was also used to further this research. This conference was held at Rhodes University in Grahamstown, South Africa, from the seventh to the tenth of September 1999. It was evident from the applications to the conference that several of the previous course participants in the Rhodes/SADC Certificate Course, as well as key people to the SADC-REEP, would be attending the conference. Because many of these people came from countries outside South Africa, and could thus not be contacted with the limited resources available, it was decided that the conference presented the opportunity for as many of these people as possible to be interviewed.

During the EEASA conference, a workshop detailing the SADC-REEP was also planned. A questionnaire (refer to section 2.3, page twenty-nine) was developed to solicit advice and training needs from participants at the workshop.

During the time of the research exploration, a number of people were attending the Attachment Programme at the SADC-REEC. This, therefore, provided an

opportunity for further interviews and these people were identified for research purposes.

This research, therefore, draws on five sources of data, which are:

- literature on the SADC-REEP and associated environmental education processes;
- questionnaires administered at the SADC-REEP workshop held during EEASA conference;
- interviews with past course participants and key SADC-REEP personnel;
- interviews with participants attending the Attachment Programme; and
- the completed application forms from prospective applicants to the Rhodes/SADC Certificate Course.

### **2.1.3 Limitations to the Research**

Several limitations to the research were identified prior to the research, while others were identified as the research progressed. The following two limitations were initially recognised as possible constraints to the research, but neither proved to be a serious impediment to the research.

- One limitation was that of resource constraints, especially time and budget. Although this meant a limitation on accessibility to respondents, it was felt that the restriction of accessibility did not have any profound effect on the research, as key individuals were successfully identified and interviewed (refer to section 2.4, page thirty-one).

- Another limitation was that of language, as English was not the home language of many of the applicants and participants. This meant that those being interviewed did not always comprehend the questions. Serious language difficulties were found with only two of the participants interviewed, in spite of the fact that the language of the questions had been adapted to facilitate understanding. The content of the application forms sometimes required an interpretation by the researcher, to establish the meaning implied.

#### **2.1.4 The Research Process**

Literature on the SADC-REEP and environmental education processes was extensively examined and it was from this that the research process began to unfold. The Parker and Murray review of the SADC-REEP had just been published and this document expressed a favourable impression of the SADC-REEP (Parker and Murray 1999). In this report, ten recommendations were made for the continued success of the SADC-REEP. Although not all these recommendations related directly to training, they were used as a starting point for the research. A questionnaire was developed based on these ten recommendations. Out of these recommendations, conversations with SADC-REEP personnel and the literature review, an interview schedule was drawn up. The results of the questionnaire and interviews provided the basis for the categories of analysis for the application forms. The use of different research methods allowed for a more in-depth measurement and interpretation of the results.

“It could be said that social research (in fact all science) is organized around two activities: *measurement* and *interpretation*” (Babbie 1992: 2). The research process of this report attempted to do exactly that. The research attempts to measure the most evident environmental training needs, as articulated by the

study group, and then to interpret these findings with a view to making some recommendations to the SADC-REEP on the environmental training needs within the SADC region.

This means that it is not only important to take note of what is being evaluated or researched but how the research is undertaken. For example, the questions asked in an interview would indicate what was being evaluated. However, the attitude of the researcher, amongst other things, would affect how the research is undertaken and thus could affect the outcome of the research (Babbie 1992: 3). The following discussion on methodology and the analysis of the data in later chapters thus reflects not only what the data is showing but also attempts to evaluate the context in which the data was generated and reported.

A research technique often used in the social sciences is triangulation. Triangulation involves “the application and combination of several research methodologies in the study of the same phenomenon” (Keeves 1988: 511). The advantages of the use of triangulation as a technique of research is that it offers a greater degree of confidence in results to the researcher and it does not rely on one particular research technique (Cohen and Manion 1989: 269). In this research four intersecting sources of data were used, namely:

- a literature review;
- questionnaires administered at the EEASA conference which were based on the Parker and Murray recommendations;
- interviews with both past participants in the Rhodes/SADC Certificate Course and the Attachment Programme; and
- a content analysis of the Rhodes/SADC Certificate Course application forms.

Although it appears here as though a linear process was followed, the reality of the research process was rather cyclical, as issues and strategies were considered and then examined again. This research was therefore a process of cyclical interpretation of the questionnaires, interviews and application forms. This provided a progressive clarification and deeper inquiry into the issues as they were identified through the research process.

## **2.2 THE LITERATURE REVIEW**

A literature review on the establishment of the SADC-REEP and current orientations to environmental education processes has been documented in Chapter One, as a background to the research. This was done through an evaluation of SADC-REEP documents and southern African literature on environmental education.

The literature review on the two SADC-REEP training courses used for evaluation in this research is presented in Chapter Three, page forty. Again, SADC-REEP documents were the primary source of this literature review. The focus of this review was developed out of discussions with the SADC-REEP training co-ordinator, Mike Ward (Ward 1999). The literature provided information on the background to the training courses. The review concentrates on the curriculum used during the courses and this literature reflects some of the needs that the training courses address.

The literature review led to the Parker and Murray 1999 report. Not only did the Parker and Murray report provide valuable background information, but the recommendations of the report were used to develop the questionnaire for this research (refer to section 2.3, page twenty-nine).

## 2.3 THE QUESTIONNAIRE

As was mentioned earlier (section 2.1.2, page twenty-four), the opportunity was taken to administer a questionnaire at the SADC-REEP workshop run at the EEASA conference at Grahamstown in September 1999.

A mid-term review of the SADC-REEP had just been completed by Parker and Murray. In their report to the SADC-REEP, Parker and Murray made ten recommendations for the future of the programme. This report was sent to Sweden, to the Swedish International Development Co-operation Agency (Sida), who is a major sponsor of the SADC-REEP. One of the primary objectives of Sida is to alleviate poverty and the agency sees education as one of the cornerstones of this objective (Sida 1999). Sida responded with a report of their comments on the recommendations made by Parker and Murray. In their report, Sida highlighted the points within each recommendation that they thought were important. The recommendations were also evaluated, and important points highlighted, by SADC-REEP personnel. These highlighted areas from both Sida and the SADC-REEP personnel were used for the questionnaire.

The questionnaire contained the full recommendations made by Parker and Murray and a statement on the important points of each recommendation. The respondents were asked for comments and suggestions in response to these statements. Only two of the recommendations are directly related to training needs, but it was felt that information from the other recommendations may prove useful for the research process. One of the problems found with this style of questioning was that some of the respondents simply agreed with the recommendations rather than making suggestions of their own. A copy of the questionnaire is reproduced in Appendix B.

Questionnaires are self-report instruments whereby respondents are given the questions on paper and asked for written replies (Keeves 1988: 478). The questionnaire was handed out at the end of the SADC-REEP workshop. Those who attended the workshop were told about the SADC-REEP and the training it offered and then asked to give any comments for the SADC-REEP, in line with the recommendations made, that is, according to the questionnaire.

Thirty participants at the EEASA conference attended the workshop, and thirteen responses to the questionnaire were received. The fact that only thirteen questionnaires were returned may have been influenced by the fact that participants were encouraged to answer the questions in pairs, discussing their answers and only submitting one response between them.

Respondents had about half an hour of workshop time left to work on the questionnaire and therefore very few answered all ten questions. The results of the questionnaire provided a basis to formulate criteria to be addressed in both the interviews and the content analysis.

The responses to the questionnaires were typed, using the exact wording of the respondents as they had answered each question. The answers to each question were then grouped together according to similar themes that were evident in the answers. These are documented in Chapter Four and discussed in Chapter Five, as they relate to the findings of the rest of the research.

## **2.4 THE INTERVIEWS**

Interviews were carried out with key people to the SADC-REEP, past participants in the Rhodes/SADC Certificate Course and with participants in the Attachment Program. In all, fifteen interviews were undertaken. This information was used to complement the information given in the questionnaire (refer to section 2.3, page twenty-nine) and the content analysis of the application forms (refer to section 2.5, page thirty-four), and so the interview questions were developed with these two sources in mind. Three past participants in the Rhodes/SADC Certificate Course were interviewed. An interview was conducted with the senior education officer of SADC-ELMS, Charles Obol, who is directly responsible for the SADC-REEP (Obol 1999) and with Teresa Squazzin, a key participant in the development of the SADC-ELMS environmental education policy document (Squazzin 1999). Ten participants in the Attachment Programme were also interviewed. A list of those interviewed is given in Appendix C.

### **2.4.1 Sampling**

When referring to sampling issues, Cohen and Manion state: "Because questions to do with sampling arise directly from the second of our preliminary considerations, that is, defining the population upon which the survey is to focus, the researcher must take sampling decisions early in the overall planning of a survey" (1989: 101). Cohen and Manion continue, "due to factors of expense, time and accessibility, it is not always possible or practical to obtain measures from a population. The researcher endeavors therefore to collect information from a similar group or subset of the population in such a way that the knowledge gained is representative of the total population under study" (Cohen and Manion 1989: 101).



One of the sampling techniques cited by Cohen and Manion is that of Convenience Sampling. This is where the nearest individuals are chosen as the sample group. In the case of this research, time, expense and accessibility to the target group were all constraints. It was for this reason that a sample of respondents was chosen. This was done by means of the Convenience Sampling technique, which allowed for interviews to be carried out only on participants at the EEASA conference or available at the SADC-REEC during the research period, that is, June to December 1999.

#### **2.4.2 The Interview Questions**

Prior to the interview process, an interview schedule was developed. A pilot test, that is a test of the questionnaire's appropriateness, was carried out. The questionnaire was shown to and evaluated by key personnel at the SADC-REEC. A copy of the interview schedule used in the interviews is reproduced in Appendix D. The questions used for the Rhodes/SADC Certificate Course participants, and those of the participants in the Attachment Programme differed slightly. Six questions were used to limit the time needed for the interviews, and to remain focused on the topic at hand. It was, however, decided that these questions should be open-ended. This was to prevent the prescription of answers to participants as the choice of questions can, in itself, be leading and a more "open" response to the questions was desired.

One of the real advantages evident when doing interviews was the ability to be able to explain to the participants the exact meaning of the questions. This was particularly important, due to the language difficulties experienced by some participants. It was evident when those being interviewed clearly did not understand the questions because of language. This was rare, however, as most of those interviewed had a fairly good command of the English language.

### **2.4.3 The Interview Process**

Interviewing past participants in the Rhodes/SADC Certificate Course was as easy as anticipated. Although twelve past participants who would be attending the EEASA conference were identified, only three could be interviewed. This was due to the fact that many of these people had heavy lecture commitments at the conference and time did not allow them to be interviewed. In the case of the participants in the Attachment Programme, however, only one participant could not be interviewed, as he was ill at the scheduled time of the interview and returned to his own country the next day.

Interviews were conducted in an informal 'conversational' manner. This was done with the intention of engaging in a meaningful way with those being interviewed. It was explained to those being interviewed that this was not a test of their knowledge, but rather a sharing of ideas related to the training needs for environmental education within their own countries. Every attempt was made to put those being interviewed at ease. Although an interview schedule was used, this was done in a semi-structured way, which allowed for the questions to be asked in varied language and order, and for deviations according to the agenda of those being interviewed (Cohen and Manion 1989: 309).

The interviews done at EEASA proved to be more formal, as time did not allow for much rapport to develop. However, in the case of those people attending the Attachment Programme, time was spent working alongside many of them as they sought to develop resources at the centre and the interviews were thus less formal. This did not mean that the interview schedule was not adhered to, but it was administered in a semi-structured way to allow dialogue to occur so as to obtain richer data (Cohen and Manion 1989: 309).

The recording of the interviews was done in an informal manner. As the respondents were all second language speakers, the interviews were not

documented verbatim, but rather reported in correct English. However, to avoid misinterpretation of the answers, an overview of the interview was typed up and returned to each of the respondents. The respondents then had the opportunity to correct any misinterpretations made or to add any subsequent thoughts to the interview. This worked very well but could only be done with the ten Attachment Participants. Unfortunately, due to time commitments, it could not be done with those interviewed at EEASA.

#### **2.4.4 Evaluation**

The evaluation of these interviews is given in the form of a summary of the common themes that were expressed during the interviews. Again, evident themes emerged from the recording of the interviews, as was the case with the questionnaires. The report of these findings is found in Chapter Four and discussed in conjunction with the other research findings in Chapter Five.

## **2.5 ANALYSIS OF THE APPLICATION FORMS**

The application forms to the Rhodes/SADC Certificate Course were the primary target of this research. The application forms for the past two years were used, that is, the applications to the 1998 and 1999 courses. In all, 166 application forms were examined.

### **2.5.1 Information Provided by the Application Form**

A copy of the application form for the Rhodes/SADC Certificate Course can be found in Appendix E. The application form provides applicants with an overview of the background to the course and explains the aims and orientation of the

course. The form then continues to provide more specific details, such as the course outline, venues for the course, assessment of the course, applicant requirements and costs involved.

The information provided on the application form proved to be of great significance to the results of this research. An example of this was that many of the applicants described a broad understanding of the word "environment" (that is, the interaction of social, political, economic and biophysical dimensions) as something they are familiar with. However, when past participants of the SADC/Rhodes Certificate Course, and participants in, the Attachment Programme, were interviewed, they expressed the fact that this was one of the key issues they had learnt on their respective courses. It then became evident that the O'Donoghue model (refer to Figure Three, page fourteen) of the environment, showing this broader understanding of the environment is exemplified in the application form. It thus seemed that applicants were merely articulating information the application form gave them. The implications of this are discussed further in the analysis of the results.

### **2.5.2 Application Requirements**

The following documents are requirements for application to the Rhodes/SADC Certificate Course:

- A full curriculum vitae;
- Copies of academic qualifications;
- A two-page description of work the applicant is currently involve in; and

- A two-page motivation for being considered for the course, including how information learnt on the course would be shared with others on completion of the course (Rhodes University/SADC Course Flyer 1999).

In this study, all four application contributions were considered, but it was the latter two requirements that were predominantly concentrated on. These are, the two-page outline of work currently being done by the applicant and their motivation for being considered for the course. One of the major limitations of this research lay within the replies to these two requests. It became evident that some of the applicants had misunderstood the expectations of the application form. When giving a motivation for acceptance on the course, rather than stating their own needs, they emphasised the general environmental needs of their countries. This issue is discussed in Chapter Five.

### **2.5.3 The Evaluation of the Application Forms**

Content analysis is "particularly well suited to the study of communications" (Babbie 1992: 314). As the application forms are a type of communication, the research technique decided upon for their evaluation was that of a content analysis. Babbie says, "Content analysis can be applied to virtually any form of communication" (Babbie 1992: 313). Cohen and Manion describe the basic goal of content analysis as taking "a verbal, non-quantitative document and transform [ing] it into quantitative data" (Cohen and Manion 1989 : 60).

The most basic form of content analysis is a word count. That is, a word or a number of words is counted, to determine their frequency of occurrence within the text. More complex forms of content analysis can be used however, such as the identification of categories, with frequency of ideas within categories being analysed (Cohen and Manion 1989: 61). This word or ideas count is referred to as "coding" and Babbie states that "content analysis is essentially a coding

operation" (Babbie 1992: 317). Cohen and Manion and Babbie state that, in the case of coding, the words or categories used can only be established once the data has had a preliminary assessment. These authors also state that it is important for the researcher to clarify the definition they have chosen for the words or categories they used (Babbie 1992: Cohen and Manion 1989).

In the case of this research, an initial tabulation of the application forms was done. The table consisted of the following subjects:

- Age
- Gender
- Country of origin
- Year of application
- Occupation
- Descriptions of the work applicants are currently involved in.
- Motivations as to why applicants felt they needed this course.

The first four categories above were simple to classify, that is, age, gender, country of origin and year of application. However, the next three categories needed to be clearly defined for analysis. From the initial tabulation of the results, a preliminary review was done to establish words or categories for the content analysis. Having identified a few key words, a preliminary word search was undertaken. The search of these words revealed very little commonality. It was evident that, due to the different backgrounds, and particularly language groups, from which applicants came, the chance of a common usage of words

was unlikely. The word search orientation was therefore discontinued and it was decided to divide the categories into themes.

The 'Occupations' category was divided as follows: Those with an academic orientation, those with an administrative/government orientation and those with a practical or applied orientation. Once the occupations had been divided into these categories, it was evident that the categories were too broad and thus they were further divided. The further division and definition of these categories is found in Section 4.3.4, page ninety-one.

The subject of training needs also needed categorisation. Following a discussion with Professor Tessa Marcus of the University of Natal, it was decided to divide this subject into the following three categories: Social, Communicative and Technical needs (Marcus 1999). During the process of the research, it was discovered that these three categories were too general and a preliminary evaluation of the themes presenting themselves in the application forms revealed the following nine categories as the predominant themes: These categories are defined in Section 4.3.5, page ninety-four.

- An enhanced understanding of environmental education
- Improved ability to disseminate information
- Capacity Building and professional growth
- Enhanced Networking
- Practical ways to set objectives and to develop programmes and strategies
- Development of curriculum
- Development of resource material
- Collecting and interpreting Data
- Learning writing skills
- Learning computer skills
- Learning photographic and video skills
- Learning to do Environmental Impact Assessments.

Babbie states that the end product of coding must be numerical (Babbie, 1992: 317). Once the information had been re-tabulated into these categories, numerical values for the frequency of results in each category could be established.

## **2.6 CONCLUSION**

A triangulation was undertaken, whereby results from the four different research methods were evaluated in relation to each other. This allows for the determination of common themes, and thus renders it possible to make some recommendations as to the environmental education training needs that the SADC-REEP could be addressing. Chapter Four documents the results of the four research methods and the integration of these results is discussed in Chapter Five.



## CHAPTER THREE

### TRAINING COURSES OFFERED BY THE SADC-REEP

*We are all learners and educators*  
(Rhodes/SADC Certificate Course Video 1998)

Chapter Three gives an overview of the training opportunities offered by the SADC-REEP. These are the Rhodes/SADC Certificate Course and the Attachment Programme. The themes and core texts that are used for the training course are then considered in order to provide some insight into the training needs presently addressed by the SADC-REEP.

#### 3.1 AN OVERVIEW OF THE RHODES/SADC CERTIFICATE COURSE

The information in this section is taken from the Parker and Murray mid-term review of the SADC-REEP (Parker and Murray 1999).

The World Wildlife Fund (WWF)<sup>5</sup>, in conjunction with Rhodes University, the Wildlife and Environment Society of Southern Africa (WESSA) and the KwaZulu-Natal Nature Conservation Service (KZNNCS) had, for two years (1995 and 1997<sup>6</sup>), run an international certificate course in environmental education. When further funding from the WWF for this course was not forthcoming, the ideal opportunity arose for the SADC-REEP to take over the course. Since the course

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5 The World Wildlife Fund is now known as the WorldWide Fund for Nature.

6 No course was run in 1996.

was held in high regard in the region, it appeared a good option. The Rhodes/SADC Certificate Course<sup>7</sup> thus models itself on this original course.

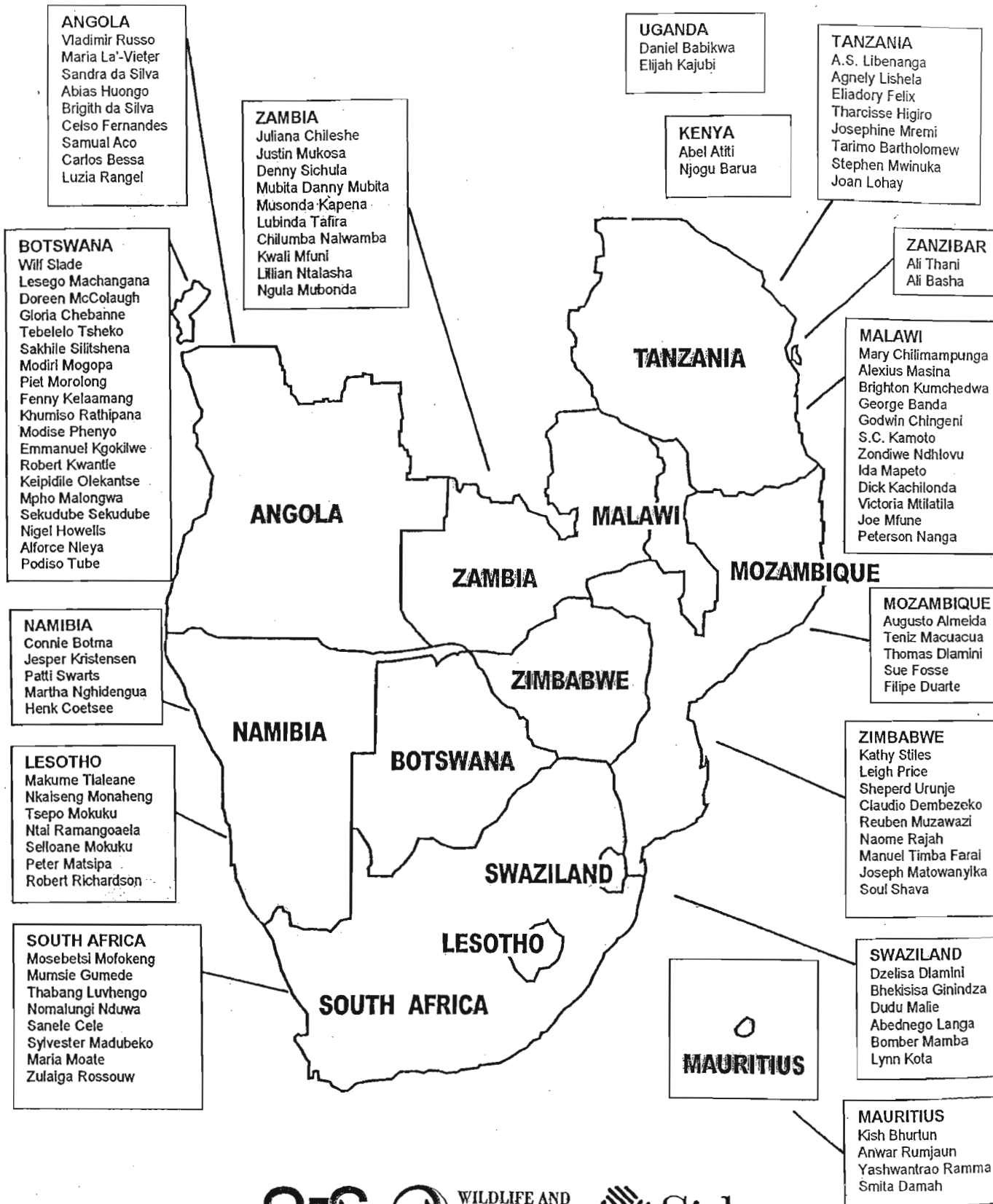
During the four years that this course has been run (two as the Rhodes/WWF course and two as the Rhodes/SADC course) fifty-five students from fourteen countries have graduated. Thirty of these students were participants in the Rhodes/SADC Certificate Course run during 1998 and 1999. Funding for the Rhodes/SADC Certificate Course is provided by the Swedish International Development Co-operation Agency (Sida). Twelve places are funded each year, thus accounting for twenty-four of the thirty graduates. The other six graduates have been funded by other means, thus allowing for students outside the SADC region to attend the course. A map documenting the names and countries of all the participants of SADC-REEP training programmes for 1998 and 1999 is found on page forty-two, Figure Five.

The Rhodes/SADC Certificate Course aims to build capacity among environmental educators in the region. The applicants to the course come from the SADC region and further afield. A graph of the number of applicants from each country is found in section 4.3.1, page eighty-eight, Figure Eight. Applicants come from a diverse array of occupations, all with some environmental component. The occupations of applicants are tabulated in section 4.3.4, page ninety-one. Although the diversity of backgrounds presents intrinsic problems when offering a course, one of the fundamental aims of the course is to share experiences from different perspectives and to promote wide co-operation and networking.

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<sup>7</sup> The name commonly used by the SADC-REEP to refer to this course is the Rhodes/SADC Certificate Course, although the full title of the course is the Rhodes University/SADC International Certificate in Environmental Education .

**FIGURE FIVE: NAMES AND COUNTRIES OF SADC-REEP TRAINING PROGRAMME PARTICIPANTS: 1998 - 1999**



**WILDLIFE AND ENVIRONMENT SOCIETY OF SA**  
*People saving for the Earth*



**Sida**

Regional Environmental Education Programme

Selection to the course is undertaken by a panel, consisting of people from SADC-ELMS, SADC-REEP, Rhodes University and other key people in environmental education. A short list of thirty applicants is drawn up and evaluated for final selection. The criteria on which selection is based are:

- tertiary qualifications;
- experience in education;
- multiplier potential;
- affiliation to training institutions and the training institutions' ongoing ability to provide and support environmental education; and
- gender (SADC-REEP 1999: 4).

A copy of the application form can be found in Appendix E. Other than the usual curriculum vitae provided by applicants to a course, applicants are required to write a two-page motivation for acceptance on the course. This includes how they envisage passing on experiences acquired on the course. Applicants must also write a two-page description of the work they are currently involved in.

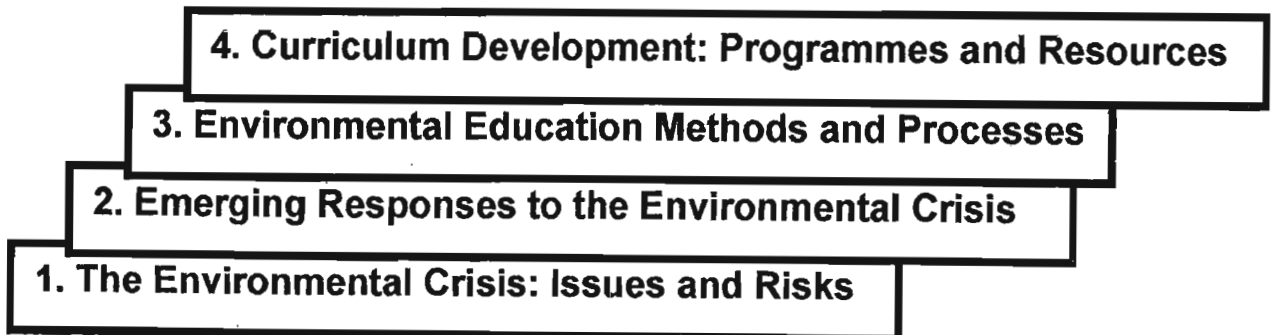
The Rhodes/SADC Certificate Course is co-ordinated by Dr Heila Lotz from Rhodes University and Mr Mike Ward from the SADC-REEC. Other staff on the course include past participants in the course. One of the motivations for including past participants is to encourage networking between participants from each course (SADC-REEP 1999: 5). Guest lecturers on the course are all experts in their fields.

During the first two days of the course staff, and participants, discuss expectations of the course. This is also a time to hear participants' "stories", that

is, such things as their background in environmental education, expectations of the course and what they feel they have to offer to the course, thus clarifying the expertise on the course. During this time an evaluation is made of the direction the course should take to meet the needs of the participants. This flexible approach means that the basic content or core-texts of the course can be further adapted to address the specific needs of participants. The course, however, does have a framework around which the course is conducted. This framework consists of four themes, which are addressed during the two-month period (*EE Mail* 1998: 3).

The four themes around which the course is developed are shown in Figure Six:

**FIGURE SIX: THE FOUR THEMES USED IN THE RHODES/SADC CERTIFICATE COURSE**



(*EE Mail* August 1999: 1)

The course itself is based at Rhodes University for a month and then at the SADC-REEC at the Umgeni Valley Project for the second month. The course involves a number of different approaches to learning, from lectures to “hands-on” field excursions. A high level of participation by participants is key to the

course, in ensuring the full benefit of interaction and experience sharing that is inherent to the course.

During the first month, at Rhodes University, participants have the opportunity to use the environmental education resources and library available at the university. One of the main assignments in this month is the production of an Enviro-Fact Sheet by each participant. Enviro-Fact Sheets are two-page sheets of information on some environmental issue of concern to the participant. During the second month, at the SADC-REEC, participants have the opportunity to make use of the resources available at the centre, especially the Share-Net resources. Share-Net is a collaboration of organisations producing low cost environmental education resources. Over the two months, excursions are used to ground the theoretical ideal explored in the course in practical activities. The integration of theory and practice is a guiding principle of the course. This is evident in the production of resources, the running of workshops and the home assignment mentioned below. Another essential aspect of the course is the networking that begins to take place between environmental educators from different countries in the SADC region (Lotz in *Environmental Education Bulletin* no. 16 1998: 31).

On returning home, course participants are required to develop a programme or resources for environmental education for their home countries. This enables participants not only to cement their learning experience in their own minds but to be able to further develop their learning experience with others in their own countries (Ward 1999).

Out of the participants in the first Rhodes/SADC Certificate Course of 1998 and the two Rhodes/WWF Certificate Courses of 1995 and 1997, some thirty-three percent of participants had gone on to enroll in masters courses in some area of environmental education or environment and development. Lotz reports that this

is a clear indication that the course is "nurturing the potential growth of leadership in this field in Africa" (Lotz in *Environmental Education Bulletin* no. 16 1998: 31). It was noted that several of the key-note speakers at the EEASA conference were past participants in this course. Autman Tembo, Daniel Babikwa and Lynette Masuku-van Damme were all speakers at the conference and past participants of the course.

### **3.2 AN OVERVIEW OF THE ATTACHMENT PROGRAMME**

The Attachment Programme provides an opportunity for environmental educators to develop their professional capacity in environmental education processes. It is a chance for participants to spend time at the SADC-REEC, contributing to, and benefiting from, the expertise and resource material available at the centre.

Applicants can apply directly to the centre or to their National Network Representatives. Each of the SADC member states has a National Network Representative. This person is usually a government employee and is responsible for the co-ordination of SADC-REEP activities within their own country. Funding is provided by Sida for one participant from each country to attend the Attachment Programme. Further participants may, however, fund themselves.

This professional development programme is in high demand and has recently been more formally structured to allow for a diverse professional development opportunity for participants. The first four days of the programme are spent on the Environmental Educators' Course, run at Umgeni Valley Project and Treasure Beach<sup>8</sup>.

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<sup>8</sup> Treasure Beach Project (Durban) and Umgeni Valley Project (Howick) are two of the Wildlife and Environment Society of Southern Africa's environmental education centres.

These four-day courses focus on activities and resources that support fieldwork. These 'hands-on' courses require a high level of involvement from all participants. Brief lectures, extensive fieldwork, group discussions and small projects ensure an enriching experience (Shell / Wessa Environmental Educators Course' flyer 2000). The course flyer can be found in Appendix F. Participants then have the option of spending a further three days at the SADC-REEC, concentrating on curriculum and resource development and environmental education theory. Should participants wish to stay for the full ten days of the Attachment Programme, they have a further three days to utilise the expertise and literature resources available at the REEC to develop resources or work on curriculum projects to take back to their respective countries (*EE Mail* May 1999: 10). A copy of the application form to this programme can be found in Appendix G.

### **3.3 RHODES/SADC CERTIFICATE COURSE CURRICULUM**

To make an evaluation of the training needs in the SADC region, within the context of the training already offered by the SADC-REEP, it is necessary to look at the curriculum of the training courses. This will provide some understanding of the various needs that are currently being addressed by the SADC-REEP in their training programmes.

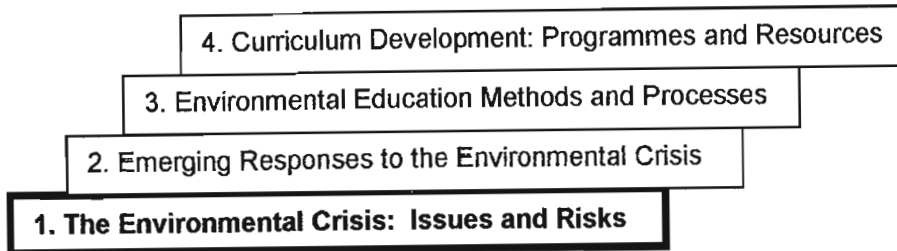
The Rhodes/SADC Certificate Course revolves around four themes. It is within these themes that flexibility is allowed in attempting to meet the specific needs of the participants. The remainder of this chapter documents an evaluation of these themes through a literature review of the core texts associated with each theme. Each theme has a text for the participants to read. These are referred to as the core texts, as they give an overview of the ideas in each theme and a list of further readings on the topic.



Although the four themes for the 1998 and 1999 courses remained the same, the core texts were changed and adapted. The core texts for the 1998 course were the same core texts as those of the Rhodes/Gold Fields Certificate Course. The Rhodes/Gold Fields Certificate Course is a one-year correspondence course in environmental education. The 1999 core texts, however, built upon these texts, to include developing trends related to the environment. These changes have been clarified in the following sections of this chapter. The changes show the SADC-REEP's willingness to adapt their training courses to the current needs and trends in environmental education (Ward 1999).

The following four sections review the four themes presented in the core texts. Information for these sections has been taken from the core texts of the 1998 and 1999 Rhodes/SADC Certificate Course.

### 3.3.1 Theme One



Theme One examines *The Environmental Crisis: Issues and Risks*. This section of the course introduces participants to the idea that the concept environment is socially constructed.

The core text for Theme One begins with the following quote by Di Chiro:

We define [the environment] as such by use of our own individual and culturally imposed interpretive categories, and it exists as the environment the moment we name it and imbue it with meaning. Therefore, the environment is not something that has reality outside or separate from ourselves and our social milieu. Rather, it should be understood as the conceptual interactions between our physical surroundings and the social, political and economic forces that organise us in the context of these surroundings. It is in this sense that we can say that the concept 'environment' is socially constructed (Di Chiro in Rhodes/SADC Certificate Course Core Text One 1999: 2).

This leads to a discussion on the broader view of the environment, that is, the environment as an interaction of social, economic, political and biophysical

dimensions. The O'Donoghue diagram, discussed in the literature review of this report (Figure Three, page fourteen), is used as the model for discussion.

Although this view of the environment was considered in both the 1998 and 1999 core texts, the 1999 text has been added to, to address some of the more evident environmental debates and trends in southern Africa.

The issues discussed in the 1999 core texts include:

- Land degradation
- Population and urbanisation
- Poverty
- The HIV/AIDS issue
- Water resources
- Wildlife and threats to biodiversity
- Traditional resource management, access to resources, land tenure and rights.

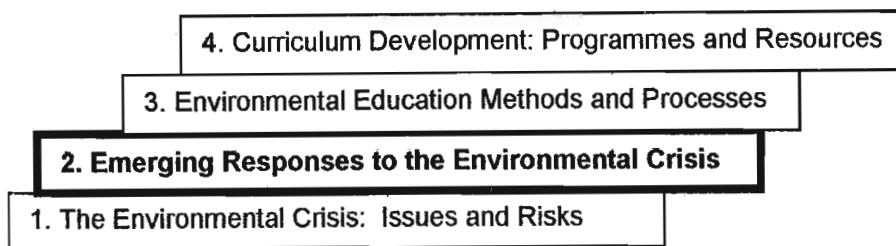
The core text acknowledges that these are not the only environmental issues in southern Africa. There are other issues of equal importance, such as pollution and armed conflict, to name just two.

Both the 1998 and 1999 core texts critique Modernism and its embedded effect on the environment. Whereas the 1998 core text looks more deeply at an

historical overview of the environmental crisis, the 1999 core text concentrates more on the sustainability and quality of life.

It is out of Theme One that the participants develop their Enviro-Fact Sheet. This task allows participants to reflect on an aspect of the environmental crisis that is particularly relevant in their own country. An example of an Enviro-Fact Sheet can be found in Appendix H.

### 3.3.2 Theme Two



Theme Two examines *Emerging Responses to the Environmental Crisis*. The 1998 core text simply focuses on environmental education as a response to the environmental crisis. The text looks at some of the definitions of environmental education and the idea of environmental education as a process. The text also reviews such things as the aims and objectives of environmental education and some proposed principles for environmental education processes.

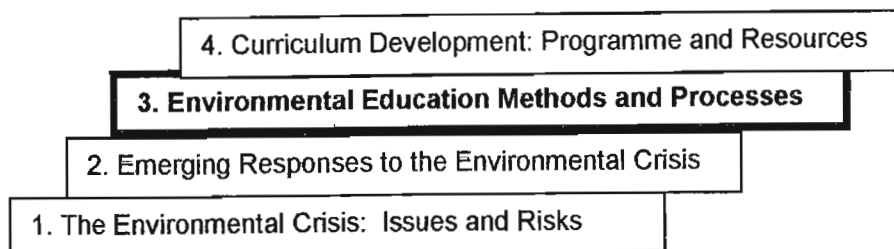
Although the 1999 core text for Theme Two also covers the topic of environmental education, a much broader perspective is explored. The text begins by looking at the history of international responses to the environmental crisis. This area was covered in Theme One in the 1998 course. The text then goes on to a much more in-depth critique of sustainable development and

policy-making for sustainable development. This is reviewed within the context of southern Africa with participants looking at environmental conventions ratified within their own countries.

In the 1999 core text, Theme Two introduces the concept of Integrated Environmental Management. This involves management strategies for the environment that include both technical and social resolutions to the environmental crisis. The 1999 core text begins to explore the recent developments of Community Based Natural Resource Management. This term, refers to "development activities that are selected, planned and implemented by the people of a community through its leadership structures, on a decentralized basis" (Rhodes/SADC Certificate Course Core Text Two 1999: 14). The text goes on to critique such things as Community Conservation projects, Eco-tourism, sustainable agriculture, changes in business concepts/management and Environmental Management Systems Standards, as responses to the environmental crisis.

These new additions to the core text of Theme Three show the SADC-REEP's identification of alternative emerging responses to the environmental crisis.

### 3.3.3 Theme Three



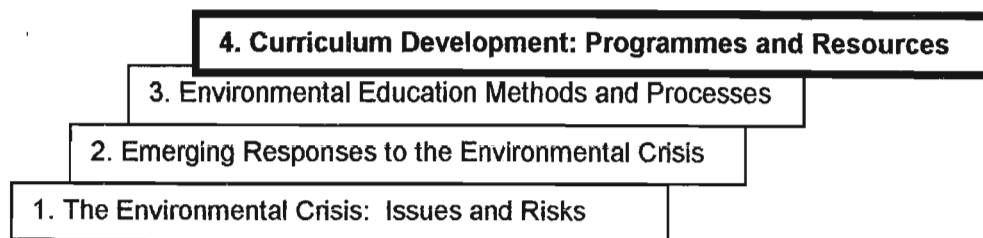
Theme Three addresses the issue of *Environmental Education Processes and Changing Theories within Education: Trends and Patterns*. The core text for this theme shows little change between the 1998 and 1999 texts. This theme concentrates more on educational processes or, simply put, how people learn. The trends in orientation towards peoples' learning processes affect the way in which people teach and thus the way in which environmental education is carried out.

This theme takes a more philosophical look at education and the way in which past philosophies have affected the way environmental education has been carried out. The literature review briefly explains an overview of O'Donoghue's ideas on the trends in environmental education (section 1.3.3, page eighteen). Such philosophies as Behaviourism, Experiential learning and Liberal Humanism, Constructivism and socially critical orientations to environmental education and the paradigm debate are explored. These philosophies have produced some observable trends in environmental education.

The text then goes on to explore more recent orientations to formal education. These include Outcomes-Based Education. Finally, the core text for Theme Three looks at parallel trends to environmental education in Conservation and Development contexts and in the evaluation process.

Theme Three thus challenges participants to explore and clarify their philosophies on the learning process. This affects the way in which participants support environmental education processes in their own countries. If environmental education is to affect positive change towards the environment, these basic philosophies and the effect they have must be explored.

### 3.3.4 Theme Four



Theme Four examines *Curriculum Development: Resources and Programmes*. Again, the core texts for this theme for 1998 and 1999 are very similar. The theme is introduced with a short overview of what curriculum is, curriculum frameworks and curriculum development. The core text then goes on to give an overview of the development of curriculum for schools, the development of resources and developing projects or programmes for environmental education.

Theme Four looks at trends in curriculum and resource development. The following three orientations are discussed:

- The Research - Develop - Disseminate - Adopt approach to resource and curriculum development.
- Action research as a strategy to engineer change.
- Action research as a socially critical process of change.

The theme ends by looking at what it means to participate in environmental education processes and the role of evaluation within environmental education. This theme is of particular value as it supports participants in their home-based projects where participants must develop a resource or programme for their own countries within the six months following the course.

### **3.3.5 The Development of Outcomes**

The above four themes form the framework of the course. It is within this framework that flexibility is allowed. Participants thus have the chance to adapt this framework to concentrate on issues that are of particular relevance to them and their respective countries. For example, the 1998 course had a particular emphasis on industry, as many of the participants were involved in that field.

The following figure (Figure Seven, page fifty-six) is an example of possible outcomes for the two-month course.



**FIGURE SEVEN: POSSIBLE RHODES/SADC CERTIFICATE COURSE OUTCOMES**

On this course you will have the opportunity to develop the ability to .....

**UNDERSTAND ENVIRONMENTAL ISSUES AND RISKS**

- Understand and interpret a range of environmental issues and risks from a range of perspectives.
- Identify, recognise and respond appropriately to complex environmental issues and risks.

**EXPLORE DIFFERENT RESPONSES TO THE ENVIRONMENTAL CRISIS**

- Recognise the value (strengths and weaknesses) of a broad range of responses to the environmental crisis.

**UNDERSTAND ENVIRONMENTAL EDUCATION AS A RESPONSE TO THE ENVIRONMENTAL CRISIS**

- Develop a broad understanding of changing trends and patterns in environmental education.
- Clarify the meaning of environmental education in practice and context.

**APPLY AND CRITIQUE ENVIRONMENTAL EDUCATION METHODS AND PROCESSES**

- Explore a range of different environmental education methods and processes.
- Select and apply appropriate methods to evaluate EE programmes and processes.
- Explore different ways of learning (for example, learning from others, critical reflection on own work, etc.)
- Explore participatory processes in EE (for example, PRA)
- Explore a range of extension methods and approaches.
- Explore EE methods and processes of relevance to school-based EE.
- Explore a range of EE methods and processes that can be applied in preset and inset programmes.

**DEVELOP CURRICULA, PROGRAMMES AND RESOURCES**

- Develop curricula and programmes for different contexts
- Explore different ways of integrating environmental education processes into formal school curricula.
- Explore links between EE programmes in schools and colleges and schools and communities.
- Explore and develop a range of resource materials for use in different EE programmes / processes.

**ACQUIRE PROFESSIONAL DEVELOPMENT SKILLS**

- Work with schools, communities and decision-makers in better ways.
- Improve programme co-ordination and management skills (e.g. develop funding proposals).
- Develop DTP / Writing / Reporting skills.

(Rhodes/SADC Certificate Course 1999)

## CHAPTER FOUR

### PRESENTATION OF OUTCOMES

*Environmental education should empower all peoples and promote opportunities for grassroots democratic change and participation*  
(UNCED in IUCN 1999: 3)

Chapter Four presents the results of the research. The literature research was presented in Chapters One and Three. The research presented here is the results of the questionnaire and interviews and the content analysis of the application forms.

#### 4.1 RESULTS OF THE QUESTIONNAIRE

The questionnaire was administered to those people who attended the SADC-REEP workshop at the EEASA conference. They were all people who had an interest in what the SADC-REEP was doing in environmental education. The questionnaire was distributed to thirty people, with thirteen responses, as some participants worked in pairs. The questionnaire was based on the recommendations of the Parker Murray report (refer to section 2.3, page twenty-nine). In the results below, a brief summary of each recommendation is given, as it was presented in the questionnaire. This is followed by the results for each question. (The full recommendations made by Parker and Murray can be found in the questionnaire, reproduced in Appendix B.)

#### 4.1.1 Recommendation One

Brief summary: *Informal partnerships and a more flexible approach to networking should be encouraged.*

Ten out of the thirteen respondents answered this question. Of the ten respondents, three simply agreed with the statement, with no further comments. Five respondents expressed the positive aspect of networking, one in particular saying they thought that networking was the most effective way to strengthen environmental education in SADC. Of these five respondents, four expressed the need for SADC-REEP's networking to be expanded to other institutions and organisations. Examples given of others that should be networked with are other government departments, universities/ colleges, Community Based Natural Resource Management programmes, and other environmental organisations. A respondent expressed the concern that just working through the SADC-REEP National Network Representatives in each country was too limiting.

The last two respondents, although agreeing that networking was very important, expressed some concern. One felt that caution must be taken to ensure networking is not done in too informal a manner. The other respondent expressed the opinion that networking was valuable, but that it relied "on everyone to do it" (quoted from the questionnaire responses 1999).

#### **4.1.2 Recommendation Two**

Brief summary: *The EE Mail newsletter should continue in its present format but a web-site should be explored. (More input for EE Mail from other countries.)*

Nine of the thirteen respondents answered this question. Two of the respondents simply agreed with the statement, with no further comment. Two of the respondents expressed concern at the cost of producing and posting the *EE Mail*. The *EE Mail* is the official newsletter of the SADC-REEP and costs about R20 a copy to produce. (A copy of an *EE Mail* can be found in Appendix I.) Both these respondents suggested a linkage with EEASA on the bulletin. One felt that by linking with EEASA, bulletin costs could be kept down, while the other felt that the *EE Mail* was inaccessible to EEASA members and more funding was needed to allow members the benefit of this newsletter.

Four of the respondents agreed with exploring the idea of a web-site, but two of the four expressed concern that access to the web is not open to all people. One of the respondents who agreed with a web-site, however, said it should be in addition to the *EE Mail*. The final respondent expressed outright concern that a web-site was exclusive to organisations with Internet facilities.

#### **4.1.3 Recommendation Three**

Brief summary: *National workshops (at a country level) are too restrictive. Broader training processes at a country level should be encouraged, i.e. the workshops should be broadened to include in-country programmes of support, training, networking and resource development. Enhanced partnerships with local (country) institutions/organisations should be developed.*

Twelve of the thirteen respondents answered this question. Only one of the twelve respondents simply agreed with the statement, whilst all of the other eleven made some comment. The suggestions included the following (these have been paraphrased):

- Networking of institutions and organisations that are involved in environmental education within the southern African region.
- Identification of other training institutions to facilitate training. Linkage to other ongoing programmes already in countries.
- Inclusion of environmental education into the curriculum of tertiary institutions, especially teacher training colleges.
- Contact sessions of two weeks from SADC-REEP held in different countries.
- SADC-REEP to be more aware of language problems with resource material.
- Workshops held in rural areas so as to bring more awareness of environmental issues.
- Local Governments should be encouraged to contribute to the costs.
- Need for more staff for SADC-REEP to be able to better facilitate workshops, etc.

#### **4.1.4 Recommendation Four**

Brief summary: *Greater 'in-put' from more countries would be valuable.*

Seven of the thirteen respondents answered this question. Of these seven, three simply agreed with the statement. Two of the respondents suggested that expanding partnerships with other organisations and institutions would enhance greater participation from other countries. Another participant suggested that rotating the training course from country to country might enhance more participation from other countries.

#### **4.1.5 Recommendation Five**

Brief summary: *A strong environmental education element in the school curriculum should be encouraged.*

Ten of the thirteen respondents answered this question. Three of these respondents simply agreed with the statement. Four other respondents agreed with the statement, substantiating their agreement with comments such as including environmental education into all curriculum, not just at school level and getting education departments involved in such programmes as the SADC-REEP. The comment was also made that the School's Environmental Policy and Management Plan Resource Pack<sup>9</sup> should be adapted for other countries.

Two of the respondents expressed the concern that curriculum should be developed at a local, or regional level. Another participant expressed the frustration that they had experienced in trying to do this (it is not known which country is being referred to). This respondent suggested that one needed to

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<sup>9</sup> The School's Environmental Policy and Management Plan Resource Pack is a resource developed by Share-Net to assist schools in developing environmental policy for their school.

"identify an individual in curriculum development within the ministry to champion this" (quoted from the questionnaire responses 1999).

#### **4.1.6 Recommendation Six**

Brief summary: *Emphasis should be placed on the development of capacity to produce materials and training courses in all SADC countries.*

Nine of the thirteen respondents replied to this question. All nine respondents commented favourably on this recommendation, with the following comments and advice being expressed. (These have been paraphrased for clarity.)

- The need to involve other training institutions to provide basic skills, such as media, editing, etc.
- This will develop out of the training and networking, but will take time.
- This is a priority
- Zimbabwe has the expertise but not the money
- The Attachment Programme should be extended to fourteen days, to include more resource development.
- The Attachment Programme should be extended to other centres and institutions, with SADC-REEP as overseer.
- If funds are available, regions should be subdivided for capacity-building.

#### **4.1.7 Recommendation Seven**

*Brief summary: To overcome the 'bureaucratic protocols' the REEC should have greater flexibility and more autonomy. More rigorous and effective reporting and accounting procedures should be developed.*

Seven respondents answered this question. Three merely agreed with the statement. The other four respondents agreed, but added comments. It was felt that as long as the REEC reported in a clear and regular way, it should have more autonomy. The comment was made that the REEC needed to remain transparent, but that too much reporting took up valuable time. Two respondents commented that this would allow the REEC to be more effective, but one respondent expressed the concern that the REEC must not compete with other NGOs, but promote unity.

#### **4.1.8 Recommendation Eight**

*Brief Summary: A consultant should be appointed to develop a "plan of monitoring" REEP.*

Seven of the thirteen respondents answered this question. Five of the respondents agreed with the statement, four of these giving further comment. One comment was that "monitoring and evaluation should be an integral part of the programme" (quoted from the questionnaire responses 1999). One respondent suggested that this should be done by one consultant.

The other two respondents expressed reservation. One suggested that if it did come to a need for this, careful selection of the evaluation process should be made. The other respondent questioned if a consultant was the best way and



felt that perhaps it should be done at a national co-ordinator network meeting, to ensure practical developments.

#### **4.1.9 Recommendation Nine**

*Brief summary: Urgent attention must be given to the staffing and resourcing of REEP.*

This recommendation was answered by only three of the thirteen respondents. All three agreed emphatically with this suggestion to ensure that the SADC-REEP could move forward and for “the programme to reach every corner of the SADC” (quoted from the questionnaire responses 1999).

#### **4.1.10 Recommendation Ten**

*Brief summary: A clear process of planning for another three-year phase is required.*

Six of the thirteen respondents answered this question. All six respondents were in favour of another three-year plan. The initial three-year plan of operation for the SADC-REEP is almost over. One suggestion was to create a “rolling plan”. Two of the respondents expressed the desire that all stakeholders be involved in this process.

#### **4.1.11 Summary of Responses to the Questionnaire**

One of the concerns of the questionnaire was that respondents simply agreed with the recommendations. Many of the comments raised, however, were valuable not only in providing direction for the interviews and content analysis, but also in substantiating the recommendations to the SADC-REEP.

The following chapter of this report looks at the integration of the above questionnaire with other findings of this research. Some of the clear indicators that the questionnaire raised were: networking, the involvement of more countries, training in own countries, resource development, technical training such as the Internet, and environmental education in school curriculum. These indicators were especially looked at when doing the content analysis of the application forms.

The following section documents the results of the interviews. Although the recommendations of the Parker and Murray report had bearing on the interview questions, some of the interviews had already been completed before the results of this questionnaire were tabulated.

## **4.2 RESULTS OF THE INTERVIEWS**

The results of the interviews are presented in the following section. These interviews were done with past participants in the two-month Rhodes/SADC Certificate Course and with those who attended the Attachment Programme, as well as with key personnel to the SADC-REEP. A list of those interviewed is given in Appendix C.

The key personnel interviewed had not done any of the training courses themselves, but were known to have had a relationship with the SADC-REEP as

a whole, and were considered to have had an understanding of the courses and environmental education needs in southern Africa. Interviews with key personnel at the SADC-REEC, that is Dr Jim Taylor and Mr Mike Ward, are not reported here, as these represented ongoing interviews and are thus cited throughout the report.

The ten participants in the Attachment Programme interviewed all attended the programme during the research period, that is September and October 1999.

#### **4.2.1 Interviews with Key Personnel**

##### **A. Charles Obol**

Charles Obol is from Lesotho, where he heads the SADC-ELMS environmental education programme. Although he has not been a student of the SADC-REEP, it is his sector of SADC that oversees the programme and thus, he travels through Africa and is in contact with environmental educators within the region. In Charles' view, there is a lack of environmental education in the region, especially in the areas of curriculum development, capacity, networking and policy. These are thus the four sectors that SADC ELMS concentrates on.

Charles says that it is not the policy of SADC-ELMS to prescribe to countries what their needs are, but to allow countries to approach such programmes as the SADC programme with their own expressed needs and orientation.

##### **B. Teresa Squazzin**

Teresa Squazzin was one of the people involved in the initial SADC workshop in Namibia in 1994 and the workshop held in Howick in 1996. She has thus been

involved with the SADC-REEP from its inception. Teresa has not, however, done any of the courses herself. She has also been instrumental in the development of environmental education policy (Enabling environmental education ... Guidelines for Environmental Education Policy and Strategy Processes in the SADC States 1999) for the SADC states. Teresa feels it is important for capacity-building of environmental educators to take place in the SADC region. That is, the region needs to build up a core of people in environmental education who "can understand each other". Any training courses, she feels, should be adaptable to individual countries and there must be more follow-up and continued networking after courses. Other than the two-month Rhodes/SADC certificate course, she feels that such things as the one-year Rhodes/Gold Fields distance course could be expanded into other countries.

Teresa also felt that before such things as resource development are addressed, environmental educationists in southern Africa need to understand the key concepts of environmental education. This includes such issues as a broader understanding of the environment and educational processes.

#### **4.2.2 Interviews with Past Participants in the Rhodes/SADC Certificate Course**

##### **A. Vladimir Russo**

Vladimir is from Angola, where he is the president of an environmental non-governmental organisation (NGO); he works predominantly through mass media such as radio and television. Vladimir is also the SADC National Network Representative for Angola. He attended the Rhodes/SADC Certificate Course in 1999, expecting to learn resource development and curriculum development to take back to Angola to run courses there in Portuguese.

The significance of the course to Vladimir is that it gave him the opportunity to share experiences with those from other countries and to gain new ideas through talking to people and sharing with them. He particularly appreciated this opportunity to share.

Vladimir says that his perception of environmental education changed during the course, in that he realised that educating is not just filling others with your own ideas, but rather a sharing of appropriate information. He says that the course rendered him more open-minded to environmental education processes. His idea of the concepts of environmental education changed, as he realised that environmental education is not just a tool but a process and that the educator is the learner as well.

Vladimir has put the knowledge he gained to good use back in Angola. He has adapted several of the resources to Portuguese and devised a game, which he has produced in English and Portuguese. He has also had the opportunity to present two talks on the programme and in January 2000 will be running a training course in environmental education in Angola.

Vladimir distributes the *EE Mail* in Angola and gives talks, thus promoting the work of the SADC-REEP. He is involved in the translation of the *EE Mail* into Portuguese. One of the needs he sees in the SADC region is that of networking, so as to be aware of what other countries are doing. One of the biggest problems Vladimir saw with the course was the language barrier. He feels that the fact that English is used makes it difficult for a country like Angola to send people and he would love to see courses like this run in Portuguese. Vladimir says that environmental education is difficult in Angola, as the war has made many areas inaccessible, but he does feel that environmental educators need training in resource development. He says that many environmental educators do not understand the basic concepts about the environment, for example a

concept like desertification, and they need to be taught about these themselves, as they often pass on incorrect information.

Vladimir reported that people need to be trained in how to run an environmental education course and produce and use the resources. His main concern though, as was mentioned, is the language problem. He says that having one of the course leaders as a Portuguese speaker will be valuable, so that time can be spent with the Portuguese participants, to ensure that they understand the proceedings. He says that it would also be helpful if the first two assignments, an Enviro-Fact Sheet and an article, could be written in Portuguese. However, as the number of participants from Portuguese-speaking countries grows he hopes to run these courses in Angola itself. He feels that the use of translators alone will not work, due to the diversity of languages needing to be translated within the SADC region.

#### B. Autman Tembo

Autman is from Malawi, where he is a Deputy Director in the Department of Labour and Vocational Training. Autman attended the Rhodes/SADC Certificate Course in 1997, with the expectation of developing methods of imparting knowledge about the environment to people. Autman was the first person with an interest in industry to attend the course and he brought a different perspective to the course. He says that during the course his perception of environmental education changed, as he realised he had had a very narrow-minded view of environmental education as purely conservation. He feels his view changed to incorporate the broader spectrum of economics, politics and social issues.

Autman is of the opinion that the environmental education training needs of the SADC region are those of developing action competency. He says that

awareness-building must come first, but feels that many people are aware of environmental problems, but do not know what to do about them. Autman says the need for action-orientated training is more significant. He advises that more practical sessions should be included in the curriculum and that more excursions should be undertaken, to see various projects in action. He feels that the assignments of the course should be more action-orientated.

Autman appreciates a course with a diversity of people. He feels that more diversity builds strength as participants share experiences.

### C. Ingrid Schudel

Ingrid is involved in environmental education at the Thomas Baines Nature Reserve. Having heard about the Rhodes/SADC Certificate Course through the Environmental Education Department at Rhodes University, she was a participant in 1995.

Ingrid says that the course gave her a valuable theoretical background to what she was doing in environmental education. She feels that the course forced her to become more involved in environmental education as a whole, as the contact left her less isolated. Ingrid said the course made her feel that what she was doing was valuable, as it allowed her to make the connection of the relevance of her work within a broader context of environmental education. The course gave her more confidence to challenge old views on how environmental education should be undertaken at the centre where she works.

Ingrid feels that the course changed her perceptions of environmental education to a broader perspective, incorporating such things as the social, political and economic dimension, rather than just nature. Although she had been aware of these dimensions of the environment prior to the course, she had not really

thought of them as something that should be addressed in environmental education. Ingrid contributes to the SADC programme through articles in the *EE Mail*.

Ingrid feels that people should be trained in being able to respond to environmental problems contextually. Clear-cut packages cannot be offered in a programme but instead creativity should be encouraged. She says that follow-up to these courses is often impractical and it is thus important to maintain contact with colleagues through networking.

### **4.2.3 Interviews with Attachment Programme Participants**

#### **A. Lillian Ntalasha**

Lillian comes from Zambia, where she is the Deputy Director for the Curriculum Development Centre with the Ministry of Education in Lusaka. In this capacity, her prime duty is to write curriculum. Her expectation of the Attachment Programme was for assistance in improving a document she has written: *An Environmental Education Teacher's Manual for Schools*.

Having attended the EEASA conference, just prior to the Attachment Programme, Lillian says her time in South Africa has enhanced her ideas on curriculum development. This was primarily facilitated through discussions with other curriculum developers at the EEASA conference. She looks forward to taking this information back to Zambia where, in her position in the Ministry of Education, she has the opportunity to influence teachers, teacher trainers, curriculum developers, policy-makers and community members in the area where she lives.



Lillian expressed concern for environmental education in Zambia, in that there is very little formal training in environmental education in that country. She feels that there is a need for certificate and degree training, right up to doctoral level, in environmental education, to enable the sustainability of the environment in Zambia. The focus of training, she believes, should be of a more practical nature, such as training in computers, rather than of a theoretical nature. Other practical training needs Lillian identifies is the development of skills in the dissemination of environmental information through the media, both print and electronic. Because the majority of the population in Zambia is rural, she feels that a high priority should be given to the informal dissemination of information to communities. In other words, communities need to be facilitated to recognise their own particular environmental problems.

Practical training requirements that Lillian feels SADC-REEP should address include the making of posters, newsletters and brochures. She would also like to see training in such practical skills as the use of e-mail in the networking process, to maintain communication and network with others in the region. She sees a place for distance learning until programmes can be established within Zambia itself. The establishment of training programmes within Zambia by the SADC-REEP could be done on a cost-sharing basis with the Zambian government. Local programmes would allow the translation of resources and education programmes into the seven local languages.

#### B. Chilumba Nalwamba

Chilumba is from Zambia and is an environmental education and public awareness co-ordinator for a contract programme executed by the Zambian Ministry of Environment and Natural Resources.

Chilumba is interested in the development of materials for environmental education and it was through a brochure provided by the Zambian SADC National Network Representative that she became aware of the SADC-REEP Attachment Programme. Joining the programme, she anticipated help in the enhanced production of environmental education materials for Zambia as well as various materials used for public awareness. In South Africa, the level of involvement by different groups in environmental education has impressed her. Chilumba believes that every person should have access to environmental education resources. What has particularly interested her at the SADC-REEP is that materials need not be of such a high printing quality, but should be simple and understandable and accessible to all stakeholders.

Chilumba will share her experiences with her fellow Zambians and hopes that this will stimulate better and increased production of environmental education resources within her country. She says that the practical knowledge of resource development is what should be promoted. In fact, Chilumba believes that environmental education training should have a practical orientation, including the use of computers for resource development and networking.

Back home, Chilumba believes that the SADC-REEP should pay more attention to NGOs, as at present much of the training in environmental education within Zambia is not extended beyond the government, and the NGOs need more support. She suggests that national governments should contribute towards cost sharing for the SADC-REEP training courses, to allow more people to be trained. Courses could be run in Zambia itself, with the help of such institutions as the University of Zambia, located in Lusaka.

Chilumba says that the SADC-REEP is a good programme, but should be expanded more within the SADC countries to reflect the actual environmental issues in different countries. She says that National Network Representatives for the programme should be encouraged to network more with other

organisations within their own countries. These representatives should be held accountable for ensuring that they implement the programme in a practical way in their respective countries.

### C. Ngula Mubonda

Ngula is from Zambia and is an Environmental Education Officer with the Environmental Council of Zambia. In this capacity, Ngula co-ordinates and facilitates environmental education activities for this Council. Part of her portfolio in this position is to be Zambia's National Network Representative for the SADC-REEP, thus, it is her responsibility to facilitate the SADC-REEP activities in her country.

Ngula came as part of a group of four women to the Attachment Programme at the SADC-REEC. These four women network in Zambia in environmental education. One of their primary objectives is the production of material for environmental education in Zambia. In the past, Ngula, says, they have had to rely on printers to produce the materials. This is costly and material is not always delivered on time or produced as they had anticipated. It is for this reason that the four came to the SADC-REEC, in the hope of being taught how to go about making their own environmental education materials. Ngula also anticipated, on attending the programme, getting to know more of what networking activities are going on in the region and how to improve her skills in networking and sharing experiences with others. There was an opportunity for all four of the group to attend a course in Zambia on the development of materials. All felt, however, that they would be distracted by other work commitments close to home and wanted the opportunity to be able to concentrate on their learning experience without these distractions. They also wanted to be exposed to another country's experiences and expertise, hence the reason for coming to South Africa.

Ngula has been struck by the amount of material that are available at the SADC-REEC. Although the centre is small, she is impressed by the amount of material housed there and the variety of sources it has come from. The Centre has shown her that you do not have to be big to be effective. She says that the SADC-REEC really is a 'centre', with people coming and going from all spheres of environmental education and much involvement and activity and linkages between organisations.

Ngula was impressed by how simple the materials often were and this showed her that they do not have to be elaborate to be effective. She says it has shown her that resources should be: "simple, easy to use and accessible to everyone." Ngula says that Zambia has very few resources, so if they can produce just a few more resources from their Attachment Programme experience, it will go a long way to achieving their objectives.

Other than the assistance in the development of resource material, Ngula sees the assistance in training people in environmental education activities as another great training need in Zambia. Having identified the field trips offered to schools by WESSA at their four centres in KwaZulu-Natal, she feels that this expertise on how to run field trips with various groups needs be used in Zambia. She would thus like to see SADC-REEP addressing the training needs of such practical things as running these field trips. Another training need that Ngula identified is in the ability to conduct workshops, meetings and conferences. Having just attended the EEASA conference, she was concerned with the capacity of her own country to host such a conference. She suggested that in future, participants of the Attachment Programme could perhaps be placed with the host country of such an event, during the organisational phase, to learn how to host conferences should the need occur.

Ngula further identified the lack of research abilities as a need within Zambia. She says that the development of resources hinges on research and many

people, once they have left university, lose the skill to conduct research and need refresher courses on research skills. She says that many people in Zambia have great knowledge of their own to write books, but not the skills to research other material to produce a resource.

Ngula feels that the SADC-REEP is a very good programme. It should continue to run, because countries such as Zambia are currently unable to be self-sufficient in addressing their training requirements for environmental education and need the support of a programme like this.

#### D. Kwali Mfuni

Kwali is from Zambia and is the Education and Communication Officer for the Environmental Council of Zambia. Her job involves public relations and it is she who is the link between the public and institutions concerned with the environment, promoting the various institutions' environmental activities. This involves promoting environmental awareness among community groups, schools, NGOs and youth groups and clubs.

Kwali attended the Attachment Programme with the expectation of being exposed to the production of environmental education material, so as to be able to help educate the Zambian public and inform them on environmental issues and activities. She expected to produce brochures, posters and a calendar, and to learn type setting for newsletters and how to compile leaflets. She confesses, however, that her expectations were unrealistic in terms of time. Although Kwali came with her own ideas of the resources that she wished to develop, she feels that prior to attending the programme, less experienced people should be given an outline or framework by the SADC-REEP, of the facilities available and the sort of work produced, so that they can fit more easily into the programme.

Kwali was very impressed by how hard people work at the centre and the wealth of material that is available at the centre. Her concern is that, due to the time constraint, the material cannot be fully explored. With the Attachment Programme experience, Kwali hopes to enhance her skills in material production so that she can take these skills back to her work environment in Zambia and that, as a consequence, they will be able to produce their own materials without having to rely entirely on outside publishers.

Kwali identifies one of the environmental education training needs in Zambia as being that of community mobilisation. She believes that people need specialist training in working with community groups. Kwali believes that the production of resource material for schools and clubs is a step towards working with communities. There are NGOs in Zambia who are engaged in work with communities as their objectives, but they are too few in number and more training is needed in this area. Kwali also sees a need for the training in the development of curriculum and the development of curriculum material so that the onus does not fall on just a few people.

Kwali feels that SADC-REEP has wide experience in the training of people for environmental education and that there needs to be opportunity for more people to be trained.

#### E. Robert Richardson

Robert is from the United States of America and is with the Peace Corps in Lesotho. His job is as an environmental education advisor. Robert heard about the Attachment Programme through his superior, who is the SADC National Network Representative in Lesotho. He has been impressed by the fact that there are so many resources available to the participants in the Attachment Programme at the SADC-REEC, both in terms of people and resources such as

computers. Having come expecting lectures only, he was glad that participants were given the opportunity of actually producing a resource for themselves.

The lecture phase of the programme helped Robert clarify for himself concepts about environmental education that he had previously thought about. It helped him underline and distinguish different ideas, thus making them more defined and easier to understand. An example of this was his clarification on the understanding of different teaching methods such as experiential, guided tours, interpretative, etc. He feels that he can use these techniques better now that he has a clearer understanding of them. The course also provided Robert with a good history of environmental education, and thus a foundation on what it is all about and good understanding of why things are done in a certain way.

The training need that Robert has identified in Lesotho for environmental education workers is one of a broadening of horizons. Teaching methods are restricted predominantly to lecture form and other teaching methods need to be encouraged. Environmental education practitioners need to have a clearer understanding of the concept of environment being one of political, economic and other aspects and not just the natural environment. He identified the need for creativity among Basotho educators, who tended to express their creativity through drama and music, but should be encouraged to use other teaching techniques in general. There would seem to be very little exploration and questioning on progress and new developments in the area of environmental education.

One observation about the SADC-REEC that Robert identified was the reliance on Share-Net resources. Coming from the USA, he has had exposure to many good resources for environmental education and feels that the SADC-REEP should explore the possibility of accessing and acquiring some of these resources.

## F. Lynn Kota

Lynn is from Swaziland, where she works for an environmental NGO doing teacher training in environmental education. This involves the establishment of school environmental clubs and ensuring their sustainability. She is also involved in the production of two newsletters, one for adults and one for schools. She is the SADC National Network Representative in Swaziland. Lynn heard about the course from Lynette Masuku – the EEASA Chairperson and past participant of the Rhodes/SADC Certificate Course.

Lynn has been impressed by the SADC-REEP because it has given her the opportunity to meet with many different people from different countries, with varied experiences in environmental education. She feels that she has had the opportunity afforded her to share her experiences and thus make her own contribution. It has also been an ideal opportunity to develop a booklet and she is impressed by the help everyone at the project has been willing to give her in this process.

The four-day Environmental Educators' Course was particularly useful to Lynn, in that she says that she is often required to take school-children on trails and in the past was limited in what activities to organise. She says that the course has taught her specific skills and activities for trails. She feels that it gave her skills to motivate students who expect to just see animals on their trips and are often disappointed when this does not occur. She now feels that she can motivate them by turning their attention to other things such as spoor and dung signs of animals. The fact that they were shown how to make different environmental education resources out of very little gave Lynn many ideas that she can adapt to her own situation. Besides the skills learnt, the experience of the course was invaluable to her. The beach and rocky shore activities particularly impressed her, coming as she does, from a landlocked country.



Lynn stated that in Swaziland environmental education is at “a very low level and very few people actually understand what it is”. She identifies the training needs to be very elementary, as she feels that they are still discussing issues in Swaziland that other countries were discussing twenty years ago. She revealed the fact that simple things such as environmental education vocabulary are very simple in Swaziland. For instance, she says they still talk about “target groups”, while other countries have moved onto words like “partnerships”. The environment is seen as just the natural environment and a broader understanding of this word is needed. Lynn commented that people want to learn something for a reason and if they cannot see the direct value of new information to them in their everyday life, they are not willing to learn about it.

Lynn feels that computer literacy and skills in the development of environmental education activities are needed in Swaziland, as well as basic facilitation skills such as how to run workshops, etc. The production of resources is another need, as these are done on a random basis and need co-ordination. “Another area where Swaziland is facing some difficulties, is the infusion of environmental education into the formal school curriculum” says Lynn.

#### G. Joan Lohay

Joan is from Tanzania, where she is an environmental education officer. She works with the National Environmental Management Council, which has a relationship with the SADC-REEP. The head of her department is the SADC National Network Representative for Tanzania and it was through her superior that Joan found out about the Attachment Programme.

Joan has been interested in investigating new ways of considering adult learning, as she specifically deals with adults. The fact that attitudes towards adult teaching and learning have changed meant that the practical application of

these new attitudes to learning, gained through her time as a participant in the Attachment Programme, was of use to her. She was impressed by the practical application of the four-day Environmental Educators Course, where the participants undertook the activities themselves, thus promoting experiential learning. She would like to take the knowledge gained at the SADC-REEC to develop a training programme in environmental education for adults in her own country.

The training needs identified by Joan in Tanzania are those of new teaching techniques for environmental education. More training is needed on how to incorporate environmental education into the curriculum and to involve students in the learning process. Joan identified the lack of resources available in environmental education in Tanzania. This, she predominantly attributes to financial restraints and feels that training is needed in the development of resources from a limited budget. She would like to see a training course such as the Environmental Educators Course more tailored for adults as many of the resources and activities learnt on this course, were aimed at children.

Joan felt that participants in the Attachment Programme should know more about the facilities available at the centre and know beforehand what resources they wish to develop and produce. She said that a programme such as this should "increase ways of networking, even with the difficulties of communication, for capacity-building and sharing of information on environmental education within the SADC region."

During her time on the Attachment Programme, Joan developed a booklet, along with Njogu Barua (interview J, page eighty-four), titled *A Training Programme Guide for School and Community Environmental Educators in East Africa*.

## H. Filipe Duarte

Filipe is from Mozambique, where he works in the training department of the Ministry for Co-ordination of Environmental Affairs. He has had a link with the SADC-REEP, in that he has, in the past, received the *EE Mail*. The Mozambique SADC National Network Representative felt that the Attachment Programme would be a good experience for him.

Filipe has been grateful for the opportunity to exchange experiences with people of different countries. He has found the experience of new methods to use in environmental education valuable. He appreciated the fact that he participated in the activities, thus facilitating learning in action as to different methods of teaching, such as experiential, practical and participatory learning methods. He was also impressed by the need to involve people in the learning process, thus moving from a top-down to a bottom-up approach. The fact that communities should be approached from a learning perspective and not a teaching perspective is important to him, as he realises that the communities themselves have invaluable knowledge and experiences that can be learnt from. The idea, Filipe says, is to share ideas.

The skills he learnt in resource material development will help Filipe in the production of a newsletter, and perhaps a booklet, back home in Mozambique. The idea of developing resources was a difficult one for Filipe before attending the course, but he has come to understand that it need not be a difficult process and wishes to share the processes with colleagues back home.

Training in environmental education occurs in two ways in Mozambique, that is, formal and informal ways. Environmental education is very new in Mozambique, with the ministry only beginning in 1994. Courses have been organised for environmental education practitioners and Filipe feels that experience is being gained. In Mozambique, environmental education is done predominantly by

NGOs, as well as through activities co-ordinated by the Ministry of Education. The Ministry of Education in Mozambique is trying to initiate a project of environmental education within the school curriculum.

Filipe feels that one of the real training needs of environmental educators in Mozambique is to improve their knowledge of the theory of environmental education. As a high proportion of environmental education is done through foreign investment, Filipe feels that environmental educators in Mozambique should be able to demonstrate a deeper level of understanding and knowledge about environmental education for the sake of these foreign investors. Training is needed in the improvement of resource development. Filipe says that many in Mozambique have the perception resources must be developed by professionals in other countries, and thus Mozambicans need the training to be able to produce their own resources locally.

Filipe was very impressed by the SADC-REEC and the helpfulness and friendliness of its people. He says that, in many cases in the past, he has found people unwilling to share information, whereas, at the SADC-REEC everyone was willing to share their knowledge. He feels that the atmosphere is such that one is learning without even realising it. Filipe is of the opinion that information gains value only when it is shared.

#### I. Luzia Rangel

Luzia is from Angola, where she is a project co-ordinator for an environmental NGO. She says that the course has helped increase her background to environmental education. She has learnt research methods that she can utilise in Angola. One of the things that has most impressed Luzia is the fact that one does not need to use sophisticated materials for environmental education, but one can use simple resources.

Luzia says the practical activities of the course were really beneficial to her as tools to use back home. She says that at present environmental education is mainly carried out in Angola by NGOs. The government is trying to introduce environmental education, but need training themselves. The benefits of this course for Luzia were shared experiences and the use of resources. The disadvantage for her was the language barrier, as she comes from a Portuguese country and is not fluent English. Her biggest desire is to have training such as this in Portuguese, so that more Angolans can be involved.

#### J. Njogu Barua

Njogu is from Kenya, where he works for EcoNews Africa. Although Kenya is not one of the SADC countries, Njogu had been invited by Jim Taylor to attend the Attachment Programme.

Most "spectacular" to Njogu about the SADC-REEP is the different type of training that is promoted. Njogu appreciated the participatory approach to learning epitomised by the motto that "educators are also learners". He said that the trend in his own country is for workshops to be held, at which people are lectured and then go away and forget about what they had been told. He feels that a programme like the one-year semi-distant Rhodes/Gold Field Course, which involves evaluation, practical application and theory, is an appropriate and affordable programme for Kenya. Njogu spent his time at SADC-REEC developing a training programme booklet (in conjunction with Joan Lohay, interview G, page eighty) adapted from the above-mentioned course for East Africa. This booklet details guidelines for a training programme aimed at environmental educators in East Africa.

Although Kenya is not part of SADC, Njogu feels that it is of utmost importance to collaborate and network with the SADC countries. He feels that East Africa

and southern Africa need to co-operate with each other to solve the whole region's environmental problems "in the spirit of regional integration". In this regard, Njogu feels that the Attachment Programme should be more widely advertised outside the SADC countries, to allow other African delegates to attend. He says that attendance by these people could be sponsored by their own organisations.

Njogu identified the need for training to produce action within his country. He says that in Kenya people know the "what", and have put the emphasis here for many years, but it is now time to move onto the "how". He says that they have the information, but they now need to know how to communicate it. Training is thus needed in communication skills in relation to environmental education. He feels that it is important to build the capacity of a few environmental educators, rather than have many environmental educators operating at half capacity.

Another need that Njogu identified in Kenya is the integration of community and school training. He feels that schools and communities should not be viewed as different components with different needs, but rather that school-pupils are part of the community and the two should thus be viewed in a holistic manner. Njogu feels that the compartmentalisation of learning, needs to be removed.

Njogu says that training in resource material development also needs to be done. He realised after his experience at the SADC-REEC that resources can be simple and effective. Njogu was quite surprised by the centre, expecting a modern complex and facilities, but he realised that a simple, appropriate set-up can be very effective. He feels that there is still a need for teaching about environmental issues and especially the implications of unsustainable living on the environment in the future. These environmental issues, he says, must be addressed, firstly at a local level, then extended to a broader context. The fact that very few people view the environment in its broad spectrum, but rather as just the natural environment, also needs to be addressed.

Njogu believes that poverty is one of the biggest hindrances to environmental education, as where people may want to sustain their resources, their immediate needs may prevent them from adopting the practice of sustainable living. At the moment, environmentalists in Kenya are working towards incorporating environmental rights into the constitution, in an attempt to promote sustainable living and development.

#### **4.2.4 A Summary of the Key Issues Raised by the Interviews**

Some of the key issues raised by the interviews are as follows:

- The development of resources is important to environmental education. There needs to be training on how to go about this. A number of the participants in the Attachment Programme, in particular, articulated how they were impressed at how simple resources can be effective. Skills are also needed in computers and printing, as well as in the actual information research process itself.
- The opportunity to be able to interact with environmental educators from other countries is important. These comments highlighted the desire for networking in the region. Interviews revealed more need for networking between countries and organisations. The use of e-mail as a networking tool should be explored; people need to know how to use this tool.
- Many of those interviewed expressed their greater understanding of a broader view of education and the environment after the courses. This is something they feel needs to be addressed among other environmental educators in their countries, that is the theory of environment and education.

- Some of those interviewed expressed the need for training courses such as those offered by the SADC-REEP to be more widely advertised, so that more people know about them. There was also concern about the availability of courses to people outside of South Africa. Respondents from non-English speaking countries desired training in their own languages.
- Media could be used as a tool to promote environmental education. Training skills in media can be addressed by the training programmes of the SADC-REEP

#### **4.3 RESULTS OF THE CONTENT ANALYSIS OF THE APPLICATION FORMS**

The application forms that were analysed were those of applicants to the two-month Rhodes/SADC Certificate course for 1998 and 1999. One hundred and sixty-six application forms were looked at and tabulated to produce the following results. Of the 166 application forms, 58 were from 1998, 106 were from 1999 and two were undated. For the sake of this research, however, the application forms have been considered together and not divided into the two years.

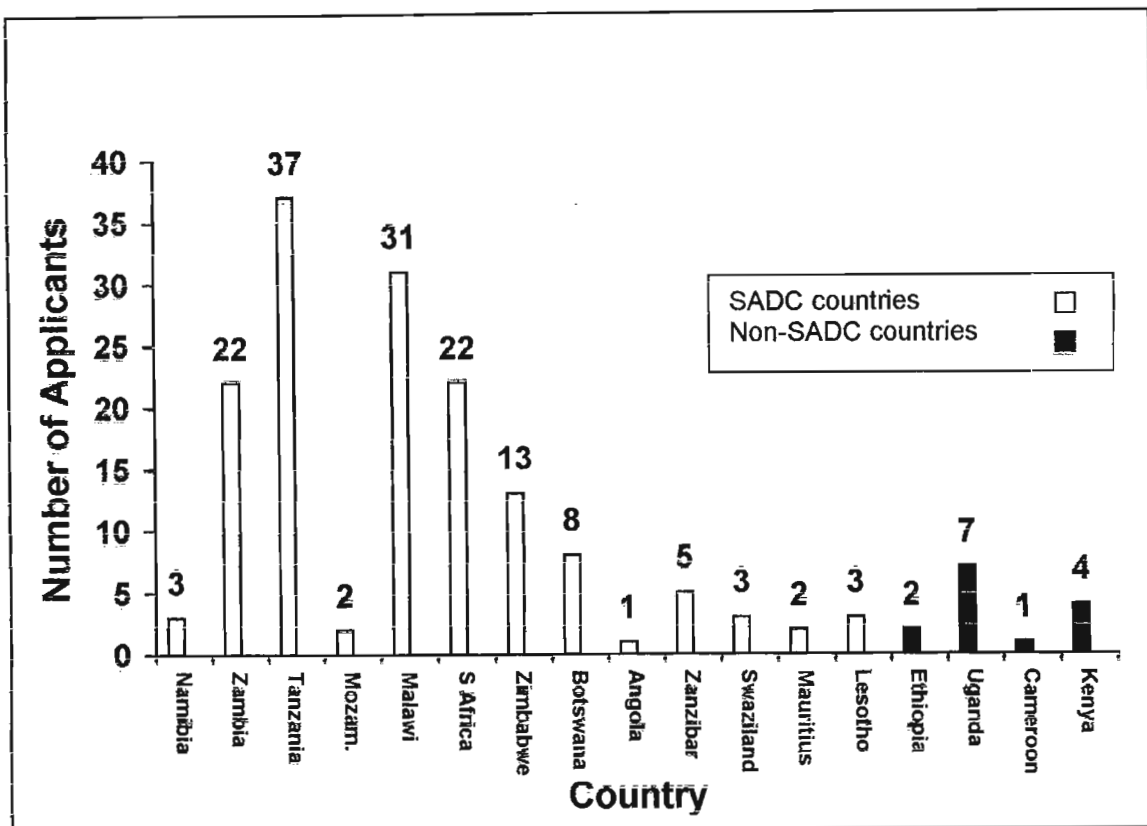
Statistics and graphs will be presented to give an overview and statistical account of the application forms. The perceived implications of these statistics are discussed in the following chapter, that is Chapter Five, page 100.



### 4.3.1 Country Distribution of Applicants

The following graph (Figure Eight) shows the countries from which the applicants to the Rhodes/SADC Certificate Course come from for 1998 and 1999.

**FIGURE EIGHT: APPLICANTS COUNTRY OF ORIGIN**



The graph shows that the majority of applicants are from Tanzania (22%) and Malawi (18.7%). South Africa and Zambia account for thirteen percent of the applicants each, with all the other countries having five percent or fewer of the applicants. The island of Zanzibar has been represented separately from Tanzania on the graph even though the two constitute one country, as Zanzibar,

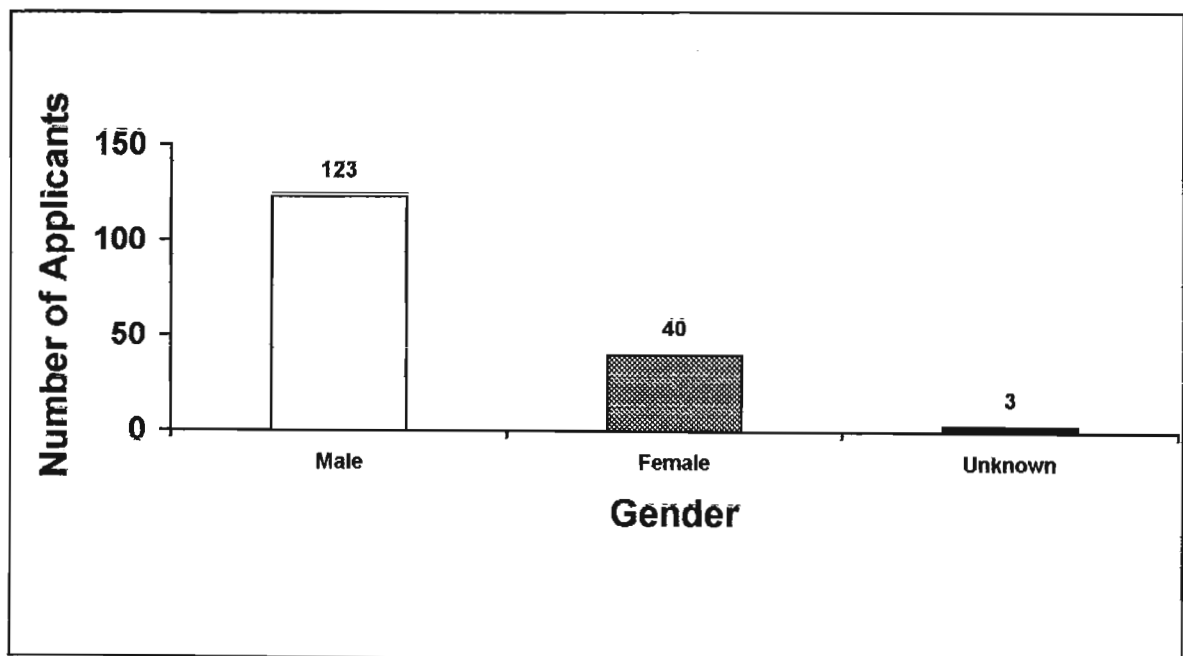
being an island, would appear to have its own unique environmental needs. Adding Tanzania's and Zanzibar's figures together means that twenty-five percent of the applicants are from Tanzania.

The graph shows that all the twelve SADC countries that are part of the SADC-REEP have applicants to the course (white). The graph also shows that four countries outside the SADC region have applicants to the course (black).

### 4.3.2 Gender Distribution of Applicants

The following graph (Figure Nine) shows the gender distribution of applicants to the Rhodes/SADC Certificate Course for 1998 and 1999.

**FIGURE NINE: GENDER DISTRIBUTION OF APPLICANTS**

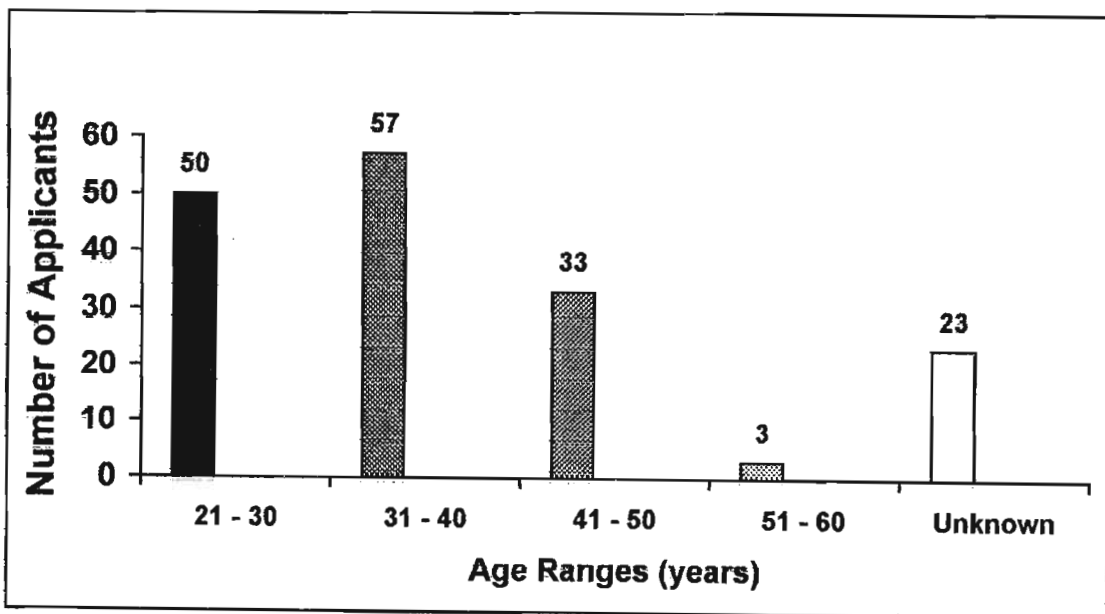


The graph shows that the majority of applicants are male. The percentage of male applicants is 74.1%, which is almost three-quarters of the applicants. A small percentage (1.8%) of the gender was unknown. This was because they did not state their gender on the application form and due to unfamiliar names, it was difficult to ascertain their gender.

### 4.3.3 Age Ranges of Applicants

The following graph (Figure Ten) shows the age ranges of applicants to the Rhodes/SADC Certificate Course for 1998 and 1999.

**FIGURE TEN: AGE RANGE OF APPLICANTS**



The graph shows that the majority of applicants come from the age range thirty-one to forty (34.3%). This is followed by applicants in the twenty-one to thirty age range (30.1%). Applicants of age forty-one to fifty are the third

category (19.9%). The number of unknown ages is relatively high (13.9%). These were applicants that made no mention of their age on the application forms.

#### **4.3.4 Occupation of Applicants**

Applicants were initially divided into the following three categories, in terms of occupation: those with a more academic, a more administrative and a more applied background.

The definition given to each of these categories was as follows:

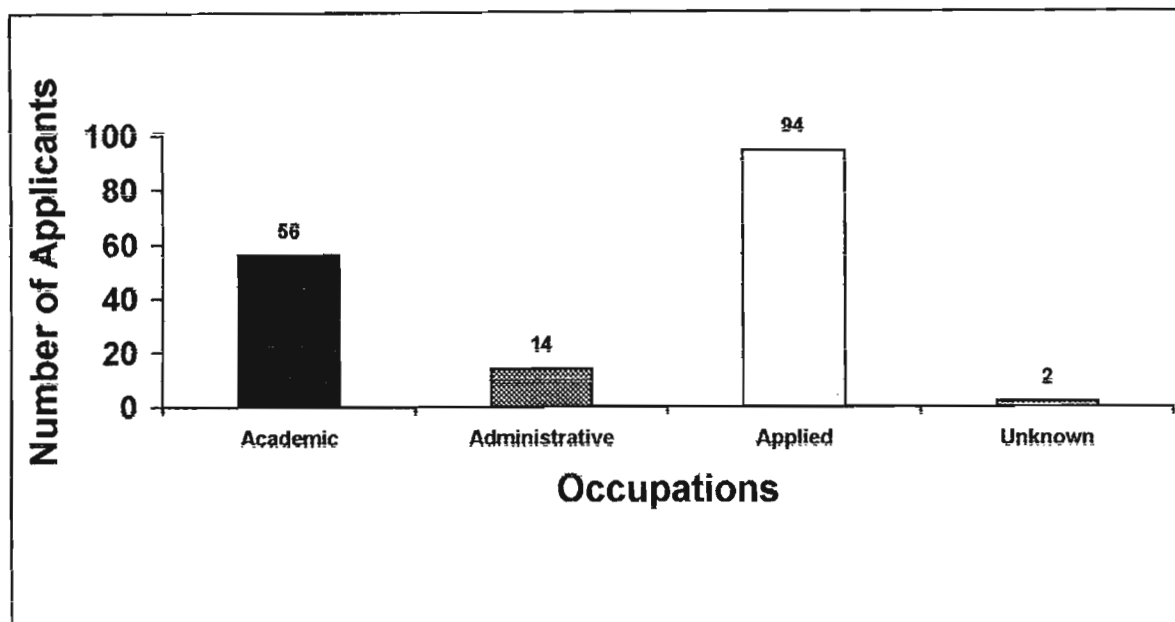
**ACADEMIC:** These were applicants whose primary occupation is that of teaching (schools), lecturing or tutoring (university, college or other tertiary institutions).

**ADMINISTRATIVE:** These were applicants whose occupation is primarily administrative. The majority of applicants in this category work for government departments or some form of advisory or specialist occupation.

**APPLIED:** This is the biggest of the three categories and consists of occupations such as environmental education officers, community workers, forest officers and fisheries officers.

The following graph (Figure Eleven, page ninety-two) shows the breakdown of applicants into the above three categories, with regards to occupation. The tables following the graph give a more detailed breakdown of occupations within each of these three categories.

**FIGURE ELEVEN: OCCUPATION DISTRIBUTION OF APPLICANTS**



The graph shows that the majority of applicants come from occupations with a more practical or applied focus. The occupations were broken down further within these categories and the breakdown revealed the following:

**TABLE ONE: ACADEMIC OCCUPATIONS**

Occupation	Number of Applicants
Student	2
Tertiary facility - lecturer or tutor	21
School teacher	33
<b>TOTAL</b>	<b>56</b>

The above table (Table One, page ninety-two) shows that those applicants from the academically orientated occupations are more predominantly school teachers.

**TABLE TWO: ADMINISTRATIVE OCCUPATIONS**

Occupation	Number of Applicants
Education positions: e.g. education inspector, curriculum development	6
Director/project co-ordinators	5
Specialists, e.g. ecologist, geologist	3
<b>TOTAL</b>	<b>14</b>

The number of people in administrative positions as defined by this research is low. The above table, Table Two, shows nearly half of this category come from an education field.

**TABLE THREE: APPLIED OCCUPATIONS**

Occupation	Number of Applicants
Forest officer/ tree planting/horticulture	8
Environmental education officer	35
Fisheries/marine officer	17
Curator	1
Parks/wildlife/farming officer	13
Research officer	7
Health officer	1

<b>Occupation</b>	<b>Number of Applicants</b>
Community development officer/field extension officers	6
Media/journalism	4
Vetenary receptionist	1
Librarian	1
<b>TOTAL</b>	<b>94</b>

The category of applied occupations has been further divided into the sub-categories in the table above (Table Three, page ninety-three and ninety-four). Although applicants have been divided into a specific category, it does not mean that their job descriptions do not overlap with those in another category. The focus of the job, or their job title, has been used to categorise them. This categorisation was not easy, as applicants doing the same job may have a different title, according to which country they come from.

The category of environmental education officers is the largest, but could be seen to cover the other categories, as, in a sense, all these respondents are education officers. Where, however, their occupation is in a particular area, such as forestry, fisheries or community development, they have been categorised separately.

#### **4.3.5 Articulated Needs of Applicants**

A content analysis was done on the application forms to the two-month Rhodes/SADC Certificate Course. Applicants to this course had to give a two-page motivation for being accepted to the course. These motivations were tabulated according to the expectations of the applicants.

Since a word count did not appear practical, a category count was done. It was therefore important to define these categories as they applied to this research. A preliminary evaluation of the tabulations helped to establish categories of needs. These categories were derived in the light of needs revealed by the questionnaire and the interviews. A cursory analysis of all the needs revealed fifteen categories that were used for the content analysis. Only eight of these categories consisted of at least five or more applicants expressing the need. It is thus these eight needs that have been concentrated on. Definitions of the needs are as follows:

- **An Enhanced Understanding of Environmental Education:** Applicants who were classified in this category are those who expressed a desire to learn more about the environment or education, or both. An example of an applicant's response who was classified in this category is: "Need to know more about environmental education in relation to educational patterns, theories and trends" (quoted from the application forms). Many of the applicants in this category, however, simply expressed the desire to have more "knowledge" of environmental education.
- **Improved Ability to Disseminate Information:** The applicants in this category are those who expressed a desire to gain skills in communicating information to others. This varied from those who wished to be able to communicate better with rural communities to those who wished to be better teachers, to those who wished to be able to be more effective communicators with policy-makers. Some of the concerns expressed in this category are that of appropriate communication skills, being able to influence others through communication and the ability to create awareness. An example of an applicant's comments included in this category is "To have the knowledge is one thing but to pass on the knowledge to other people is a different thing" (quoted from the application forms).



- **Practical ways to set objectives and to develop strategies and programmes:** The applicants in this category are those who expressed a need to be able to write project proposals, set objectives, develop strategies and run programmes. An example of an applicant's comment in this category is: 'It will give me the ability to design projects and programmes that are not only better, but also suitable, viable and sustainable' (quoted from the application forms).
- **Collect and Interpret Data:** The applicants in this category were those who desired to improve their research techniques. An example is: "By participating in environmental education programmes such as this, ...I can then have good skills in educational research on environmental issues" (quoted from the application forms).
- **Build Capacity/Personal Growth:** This category consisted of applicants who were concerned with building their own capacity or with personal growth. Another theme included in this category was the desire to be empowered. Although capacity-building was considered as a separate category, many of the other needs expressed by applicants reflect an intrinsic desire for capacity-building. Reasons for wanting to develop capacity ranged from the ability to be able to influence others in favour of the environment, to the ability to be able to get a better job. An example of comments included in this category is: "I will acquire high capacity-building which will help me to work with people at high level" (quoted from the application forms).
- **The Opportunity to share experiences and network:** The applicants included in this category are those who expressed the desire to be able to share experiences and knowledge with others in the same field or similar fields to themselves. The opportunity to share was not that of passing on information as environmental educators, but rather the desire to network with colleagues from different regions. An example of a comment included in this

category is: "Through sharing expertise, I intend to strengthen our capacity and network in order to encourage and enhance education initiatives in our botanical gardens" (quoted from the application forms).

- **Develop Curriculum:** Applicants included in this category were those who expressed the desire to be able to develop and contribute towards environmental education curriculum in schools or elsewhere. An example of a comment is: "Fill in knowledge gap in environmental issues so can develop a curriculum for field staff to use in communities. Knowledge and skills to develop curriculum that is practical" (quoted from the application forms).
- **Development of Resource Material:** These were applicants who expressed a need to be able to know how to develop resource material. An example is: "Enhancement of my knowledge and skills in development of cost effective environmental education and awareness materials on one hand, in the dissemination of the materials on the other hand" (quoted from the application forms).

Having defined the categories in which the needs were to be assessed, a numerical count was done on how many times a respondent expressed that need. Table Four, page ninety-eight, shows the results of the frequency of the eight most articulated needs (as defined above). These needs are ranked in order, from the most frequently expressed need to the least frequently expressed need.

**TABLE FOUR: FREQUENCY OF ARTICULATED NEEDS**

<b>Need</b>	<b>Number of Applicants</b>
An Enhanced Understanding of Environmental Education	68
Improved ability to disseminate information	52
Build Capacity/Personal Growth	46
The Opportunity to Share Experiences/Network	44
Practical ways to set objectives and to develop strategies and programmes	38
Develop Curriculum	14
Development of Resource Material	11
Collect and Interpret Data	8

The other seven needs that were expressed by individual applicants were (all of these needs were articulated by less than five applicants):

- Learn writing skills
- Learn computer skills
- Learn photography and video skills
- Learn to do Environmental Impact Assessments (EIAs)
- Learn conflict resolution
- Learn an interdisciplinary approach to environmental education
- Learn to conduct field trips.

The content analysis thus gives some indication as to the needs that applicants to a training course such as the Rhodes/SADC Certificate Course are expressing.

#### **4.4 SUMMARY**

The above chapter has reported the results of the questionnaires, the interviews and the content analysis of the application forms. Each method of research has produced its own results, but has also contributed towards a combined synthesis of the results. This was due to the fact that results in one area influenced the focus of research in the other. As was stated in the methodology, this was a cyclic process, with constant re-evaluation of focus as results were tabulated. These results were then triangulated, that is they were evaluated in the light of one another to produce common themes for discussion. The following chapter, Chapter Five considers the discussion of the results.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

*The world's teachers ... have a crucial role to play in helping bring about the extensive social changes needed for sustainable development*  
(Brundtland Report in Ferreira 1998: 9).

In Chapter Five, the findings of the research are considered. These relate to the four research methods applied in the research, that is, the literature review, the interviews, the questionnaire and the content analysis. These are discussed in relation to one another and with reference to the initial objectives of the research.

#### **5.1 REVISITING THE OBJECTIVES**

The initial aim of this research was to consider the environmental training needs within southern Africa, as articulated by applicants to, and participants in, the SADC-REEP training courses. The objectives include a consideration of the development of the SADC-REEP within the context of current environmental education processes; an exploration of the training programmes currently offered by the SADC-REEP; and an examination into the environmental education training needs articulated by applicants to, and participants in, these training courses.

The following key questions were established early on in the research process:

- Why was the SADC-REEP established?
- What recent trends in environmental education processes are influencing this programme?
- What training in environmental education does the SADC-REEP currently offer?
- What are the training needs articulated 'by SADC-REEP training programmes' applicants and participants?
- How are these articulated needs being addressed by the SADC-REEP?

During this study, triangulation was used as a method for integrating and comparing data. This involves considering a number of different research methods to address a research issue or question. Chapter Five now attempts to integrate the results of the four research methods used, that is, the literature review, the questionnaire, the interviews and the content analysis. This integration enabled and supported the following discussion, which endeavours to address the research questions.

## **5.2 THE ESTABLISHMENT OF THE SADC-REEP**

The magnitude of environmental issues and problems is evident in the literature. Although many people interpret this environmental crisis as one of biophysical factors, it is rather the interaction of social, economic, biophysical and political dimensions that contribute to and enhance the magnitude of the problem. One

of the internationally recognised responses to the crisis is that of environmental education. The SADC-REEP was thus established as an important initiative, in response to the environmental crisis in the southern African region. Consideration of the application forms, responses to the questionnaire and responses to the interviews, reveal comments of encouragement and a desire for environmental education training such as the SADC-REEP offers. The fact that so many applications are received for the two-month Rhodes/SADC Certificate Course would seem to be further evidence of the demand for such programmes. From this, it can be established that environmental education training courses are needed and in great demand to address environmental problems in southern Africa.

Before discussing the results of the environmental education training needs articulated by research respondents, a brief profile is given of the applicants to the Rhodes/SADC Certificate Course, as extrapolated from the 166 application forms reviewed. This profile gives an indication of the kind of people seeking training in the region

### **5.3 A PROFILE OF APPLICANTS TO THE RHODES/SADC CERTIFICATE COURSE**

#### **5.3.1 Country of Origin**

Most of the applicants to the course are from Tanzania and Malawi. One of the reasons why Malawi may have so many applicants, is that the SADC-REEP recently held a workshop there, thus exposing more people in that country to the availability of such a course. The issue of awareness of training courses such as those offered by the SADC-REEP was revealed in responses to both the questionnaire and the interview. There would seem to be a need for more awareness of the SADC-REEP in the region in general. This appears to be

particularly true for those countries with few applicants, although a lack of respondents from one country may not necessarily indicate a direct link with lack of awareness of the programme. A country such as Tanzania has not had a regional workshop, but has the largest number of applicants. This would seem to indicate that the project is well promoted there. It may also be an indication that Tanzanians have a desire to seek out training opportunities for themselves.

### **5.3.2 Gender Distribution**

The application forms clearly showed that far more men are applying to the course than women are. This probably indicates that more men are working in the field of environmental education. It may also be a reflection of the employment structures in southern African, with men traditionally in professional careers. One of the criteria for being accepted on the course is gender and course co-ordinators try to ensure an equal representation of gender. This is a difficult policy to adopt due to the limited number of women who apply to attend courses.

### **5.3.3 Age**

The predominant age range of applicants, is thirty-one to forty years old, followed by the age range, twenty-one to thirty years old. This would seem to indicate that applicants are predominantly from the age group that is young enough to be inclined to study further, whilst having some working experience behind them.



### **5.3.4 Occupations**

The majority of those applying for the course are actively involved in the applied implementation of environmental education in some form or another. This high number of applicants may indicate the need for more formal environmental education training for those in this particular field. A large percentage of the applicants, however, come from academic institutions such as schools and colleges. This would seem to indicate that 'formal' educators are moving towards incorporating environmental education into the school and college curriculum.

## **5.4 THE ARTICULATED ENVIRONMENTAL EDUCATION TRAINING NEEDS**

To investigate the articulated needs of applicants to these courses, the eight most articulated needs revealed through the content analysis are now discussed (Defined and documented in section 4.3.5, page ninety-four). Each of these will be discussed in the light of the review of the training currently offered by the SADC-REEP (Chapter Three, page forty) as well as the findings of the questionnaire (section 4.1, page fifty-seven) and interviews (section 4.2, page sixty-five).

### **5.4.1 An Enhanced Understanding of Environmental Education**

The content analysis of the application forms revealed the most commonly articulated need of applicants was "a better understanding of environmental education". This, however, may simply indicate a high response, as it is the focus of the training course and is articulated within the application form.

The interviews with participants provided evidence that the environmental training they had received from the SADC-REEP appeared to broaden their view of the environment. The interaction of the social, political, economic and biophysical environments was clearly an added dimension to most of the participants interviewed.

A number of applicants expressed some understanding of this interaction, but this was probably because the four-dimensional model of the environment (O'Donoghue's model shown on page fourteen) was provided on the application form (Appendix E). It was evident from the context in which this was articulated by applicants that there was not a clear understanding of these dimensions of the environment, nor of education as a process. Many of the participants still referred to the environmental crisis in terms of "conservation", which would seem to indicate that the major focus and understanding of environmental educators in southern Africa is often limited to the biophysical environment.

The understanding of education as a process would also not seem to be clearly understood by many of the applicants. Applicants invariably spoke of the ability to take information about environmental education and pass it on to others so as to change their behaviour. This reflects an understanding of the environment as an 'object', and the understanding that information can simply be passed on to change behaviour. This reflects the theory of behaviourism and this idea is addressed on SADC-REEP training courses (section 3.3.3, page fifty-three). The understanding people have of interactive environmental and educational processes, although being articulated, would appear not to be clearly understood.

It seems evident from the application forms that many of the applicants saw a training course such as that offered by the SADC-REEP as "the answer" to their various perceived problems and felt that this would give them the ability to "solve the environmental crisis". This is a reflection of modernist thinking. Another

possible reason why applicants so clearly articulated this course as “the answer” could be the fact that they wanted to be accepted on the course. Because the content analysis was carried out on the application forms, it was necessary to keep in mind that applicants were likely to communicate information that would count in favour of their being accepted on the course.

From the content analysis and the comments of those interviewed, it seems that there is a need for environmental educators in southern Africa to be exposed to a broader understanding of the environment and environmental education. A broader view of the environment and educational processes is addressed by the core texts around which the Rhodes/SADC Certificate Course is built.

#### **5.4.2 Improved Ability to Disseminate Information**

The improved ability to disseminate information relates back to the articulated need of applicants to understand environmental processes and trends in environmental education. Those participants interviewed who had received training expressed the understanding that the training they had received from the SADC-REEP had led them to a clearer understanding of educational processes. Understanding appeared to have shifted from the idea of an expert imparting information, to partnerships with relevant stakeholders engaging in learning processes that are more interactive.

Although themes were categorised for the content analysis, many of these themes overlap. An example is the dissemination of information, which has been separated from the development of resources. These two themes, however, clearly overlap, in that, ideas about the way information is disseminated would affect the way in which resources are developed as a tool for the dissemination of information.

### **5.4.3 Capacity-Building and Personal Growth**

Capacity-building is a word that is often used by applicants. This may once again, simply be a reflection of information given on the application form, which talks about professional development as a means of Capacity-building. It also seems to be a fashionable term used by people in Africa. It is difficult to say how many applicants are reflecting their own needs or just expressing the needs they think that the courses will address. Any good education will inevitably build capacity and personal growth, and this may not necessarily translate to effectiveness within the environmental education process. As was articulated by several of those interviewed, the education processes should lead to appropriate action.

### **5.4.4 Networking**

One of the objectives of the SADC-REEP is the development of enhanced networking and this is very clearly an important part of training. The desire to network more widely was clearly articulated by applicants to the course. The Parker and Murray mid-term review of the SADC-REEP recommended continued networking as one of their recommendations. This was thus included in this research's questionnaire, which was based on the Parker and Murray recommendations (refer to section 2.3 page twenty-nine). Respondents to the questionnaire confirmed the positive benefits of networking and expressed the need for this networking to extend to institutions other than the SADC-REEP. This, however, may once again reflect a fashionable trend in Africa to articulate networking as a need.

Those interviewed, who had participated in either the Attachment Programme or the Rhodes/SADC Certificate Course, said that the training courses were excellent opportunities to begin to network within the field of environmental

education in southern Africa. The sharing of experiences and knowledge in both the formal and informal learning spheres of the course appeared to be highly valued. It thus appeared that those who have participated in the training courses have experienced the value of networking.

#### **5.4.5 Practical Ways to Set Objectives and to Develop Strategies Programmes**

Theme Four of the core texts for the Rhodes/SADC Certificate Course deals with the issue of the development of environmental education programmes. This was a need articulated by many applicants to the course. It was interesting to note that some of the Attachment Programme participants interviewed especially raised the issue of being able to run a workshop as a need they wished to attain. Many of them had just attended the EEASA conference, and the fact that a conference of such magnitude was organised efficiently appeared to impress them. The idea was expressed that perhaps an Attachment Programme to learn workshop skills could be useful to learn the skills of organising such an event.

#### **5.4.6 Development of Curriculum**

This theme is addressed in Theme Four of the Rhodes/SADC Certificate Course. The development of course curriculum relates to other needs such as a better understanding of environmental education processes and the dissemination of information. The need for curriculum development was raised for both school and tertiary education programmes.

A question relating to environmental education curriculum was included in the questionnaire. Responses to this question revealed that, although people were

in favour of curriculum development, they felt that the process would be difficult and that curriculum issues should be developed on an individual country basis, to suit the specific needs of each country.

#### **5.4.7 Resource Development**

The Rhodes/SADC two-month course and the Attachment Programme cover resource materials development. As both training programmes include time at the SADC-REEC, located at the Umgeni Valley Project, they have access to the range of Share-Net resources produced there. Those interviewed expressed a very favourable response to these resources. Respondents commented on the fact that the resources did not have to be of a complex nature, or to be in full colour and developed with sophisticated printing equipment. They appeared to realise that resources can be simple yet effective.

Both the Rhodes/SADC Certificate Course and the Attachment Programme offer participants the opportunity to develop or adapt resources for their own countries or work situations. This was particularly helpful to many participants, who also appreciated the access to personnel who were willing to assist them and the access to computers and printers, which allowed them to do the actual production of resources.

The needs expressed in the development of resources were not only for expertise on how to research and write a resource but for the technical aspects of the development of a resource as well. Lack of finances was often a deterrent and the use of the simple, inexpensive resources developed by Share-Net was an encouraging factor. Another of the concerns of some of those interviewed was the fact that the resources were predominantly English and many people in the SADC region do not speak English as their first language. They thus articulated a desire to be able to adapt resources into their own languages. This

adaptation of resources is encouraged by the SADC-REEP, to reflect the needs of the individual countries and the purpose of the resource.

The questionnaire included the recommendation of the development of a website as a resource. There was concern for those who did not have access to computers. This could be seen to be a predictable response because of the current trend in Africa of empathy for “unmodernised communities”.

#### **5.4.8 Collection and Interpretation of Data**

One of the training needs that became apparent when analysing the application forms was a need to be able to collect and interpret data. This was also a point raised by one of the Attachment Programme participants interviewed. She raised the concern that her country did not have the expertise to research information on the environment.

The Rhodes/SADC Certificate Course offers participants the opportunity to research topics and present the findings in a verbal and written form. As was mentioned in Chapter Three, participants in this course have several assignments during the course. These include the production of an Enviro-Fact Sheet and a workshop conducted by participants with their fellow students thus enhancing participants’ skills in the collection and interpretation of data.

The Attachment Programme allows participants to develop a resource or programme for their own purposes. Once again, this allows for the development of skills in the collection and interpretation of data.

## **5.5 THE CURRENT ORIENTATION OF THE SADC-REEP TRAINING**

It would seem that the needs expressed by applicants to, and participants in, the SADC-REEP training courses are in line with many of the needs currently addressed by the SADC-REEP training courses.

The eight most common themes revealed through the content analysis are all currently addressed in one way or another by one of the four themes of the Rhodes/SADC Certificate Course. The focus of the Attachment Programme differs from that of the Certificate Course and is of much shorter duration than the Certificate Course. This may not allow for as in-depth addressing of participants needs as the Certificate Course, but would seem to be achieving its own objectives of allowing participants the opportunity to network and develop resources.

## **5.6 CONCLUSION**

Common themes may be drawn out from the training needs expressed by environmental educators in the SADC region as revealed in this research. The above discussion has attempted to integrate the results of the four different research methods employed. The following chapter includes a summary of the research process thus far and offers a conclusion to the research. It makes some recommendations for environmental education training programmes within southern Africa, as extrapolated from the findings of this research.



## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

*There is a sense of humility that must come to those who seek to guide the outcomes of people and institutions (Popkewitz in Taylor 1997: 156)*

Chapter Six offers a brief overview of the research. Drawing on the findings of the research, the chapter then offers several recommendations to the SADC-REEP for the enhancement of their current training courses. The chapter ends with concluding comments on the research.

#### **6.1 RESEARCH OVERVIEW**

The world is facing an environmental crisis, which threatens not only the biological environment but the social, economic and political dimensions of the environment as well. Many governmental and non-governmental organisations have assembled in both regional and international conferences to seek “solutions” to the crisis. Environmental education is often proclaimed to be, one of the key responses to the environmental crisis.

The SADC-REEP, initiated by SADC-ELMS, was established in response to a regional concern for the environment. This programme was forged as a means of addressing the needs of environmental education within southern Africa. One of the objectives of the SADC-REEP is the establishment of training programmes for environmental educators in the region. Several training programmes have thus been initiated, however, for these training programmes

to be effective, it is necessary for the SADC-REEP to remain abreast of current training needs in environmental education.

A current orientation of environmental education emphasises a more interactive approach between “learners” and “educators”. The process of this interaction allows not only for more active learning but also for greater flexibility, so that learners can reflexively respond to their own particular needs. Not only has an understanding of education processes taken on a broader perspective, but the definition of the environment has, as well. This is reflected in a greater understanding of the environment as an interaction of social, political, economic and biophysical dimensions

This broader understanding of the environment and education processes, is evident in the curriculum of the training programmes offered by the SADC-REEP. The results of this research, however, would seem to indicate that this broader understanding of the environment and education processes is not understood by environmental educators in southern Africa. For this to happen, it is evident that training programmes, such as the SADC-REEP offers, are necessary to address the needs of the region. This research sought to ascertain the environmental education training needs within the SADC region.

The environmental education training needs of the region were evaluated through a triangulation of different sources of data, that is, a number of different research methodologies were used and then compared to establish common themes. The four methods used for this research were literature review, questionnaires, interviews and a content analysis of the application forms to the Rhodes/SADC Certificate Course.

The four research methods revealed a number of common themes relating to the training requirements of environmental educators in the SADC region. The most apparent needs are for:

- An enhanced understanding of environmental education
- An improved ability to disseminate information
- Capacity-building and professional growth
- Enhanced networking
- Practical ways to set objectives and to develop programmes and strategies
- Learning to develop curriculum processes
- Developing resource material
- Collecting and interpreting data
- Learning writing skills
- Learning computer skills
- Learning photographic and video skills

These themes are used as a basis to develop recommendations to the SADC-REEP.

## **6.2 RECOMMENDATIONS**

### **6.2.1 Recommendation One**

From the feedback received during the research process, it would seem evident that courses that the SADC-REEP offer, are of value in the enhancement of understanding of environmental education in the region. The duplication of such courses would thus seem to be critical for the region. Not only should the present courses be more widely promoted within the region but also new courses in other countries should be investigated. This seems to be a particular need in countries, where a language other than English, is the official language.

Funding of such courses is evidently a problem and the SADC-REEP could look to co-operating with other institutions and organisations offering training in the region. Government support for the programme may also be a possible source of funding.

### **6.2.2 Recommendation Two**

The ability to be able to disseminate information in an appropriate manner could be promoted through a clearer understanding of education. The model developed by O'Donoghue and Janse van Rensburg (section 1.3.3, page twenty-one), which develops education as an integrated approach of Encounter, Dialogue and Reflection, should be emphasised and used as a point of departure on training courses.

### **6.2.3 Recommendation Three**

The ability of the SADC-REEP to adapt their training programmes to meet the personal needs of participants in the courses, allows for participants to build capacity according to their needs. The SADC-REEP should therefore, continue to be responsive in the training offered. Addressing the apparent needs that have presented themselves through such research as this is one way of ensuring SADC-REEP training programmes are appropriate for the southern African region it serves. SADC-REEP should also continue to 'challenge' fashionable trends in articulated needs within the region. Training courses could help participants develop an understanding of their 'actual' needs.

#### **6.2.4 Recommendation Four**

The need for networking is articulated by applicants to the course, as well as, past participants of the courses. Networking among environmental educators from different backgrounds and countries should therefore continue to be actively promoted. Such tools as the *EE Mail* and the Internet could be utilised to promote wider networking.

#### **6.2.5 Recommendation Five**

Although participants on the Rhodes/SADC Certificate Course have the opportunity to develop programmes, and run workshops of their own, the need for more practical experience is evident. The “home based” assignment of the Certificate Course does allow for a practical dimension to the course, however, this could perhaps be introduced as part of the Attachment Programme. As the SADC-REEP seeks to expand its training options, a training course focusing solely on programme and workshop development may be considered.

#### **6.2.6 Recommendation Six**

The ability to develop curriculum for environmental education is needed. This is addressed in Theme Four of the of the Rhodes/SADC Certificate Course, but it would appear that it needs more attention. The need for environmental education curriculum, especially in schools and tertiary institutions, should receive further attention. South Africa is engaged in curriculum development with the government support, through the introduction of Curriculum 2005 (Outcome Based Education), but the ability to develop curriculum for environmental education, needs to be extended to other southern African countries. The development of curriculum would have to be country based, to

address the specific environmental needs and education systems of each country. This could be facilitated through the SADC-REEP's training programmes and include collaboration with governments, NGOs and other institutions already existing in the SADC countries.

### **6.2.7 Recommendation Seven**

There is clearly a need for the continued support of resource material development in the region. This involves not only the availability of expertise in data collection and writing skills, but in technical support. The availability of computers and printing facilities at the Umgeni Valley Project may, in the long run, be duplicated in other countries in the region, so that more appropriate resources can be produced locally.

### **6.2.8 Recommendation Eight**

On both the Attachment Programme and the Rhodes/SADC Certificate Course, participants have the opportunity to collect and interpret data for their assignments. More practical activities would seem to be needed to allow participants to develop this skill.

### **6.2.9 Recommendation Nine**

The need for practical skills such as writing, photographic, video and computer skills has been addressed by the SADC-REEP training programmes, but it would seem that these skills could be further developed. Once again, an option is for SADC-REEP to collaborate with institutions specialising in teaching these skills.

### **6.2.10 Recommendation Ten**

There is clearly a requirement for more training in the SADC region to meet the needs of environmental educators, but time is needed to develop the expertise to run these training courses. The practice of including past participants to assist staff on subsequent courses promotes the development of expertise throughout the region. More training will also need financial resources and this could be facilitated through collaboration with other governmental and non-governmental institutions that can contribute to the resources of the SADC-REEP. This will enhance the accessibility of training opportunities for more environmental educators in southern Africa.

## **6.3 CONCLUDING COMMENTS**

Although only two and a half years old, the SADC-REEP has achieved a great deal in terms of supporting environmental education processes in the southern African region. This research revealed little incongruity in the training needs addressed by the SADC-REEP and the articulated needs of applicants to, and participants in, its training courses. The recommendations are thus, offered for the ongoing enhancement of the current training carried out by the SADC-REEP. Although the research does not reveal any profoundly different insights into environmental education training requirements, it offers the SADC-REEP additional support for the need of environmental education training courses within the SADC region.



## IN YOUR HANDS

*Let us learn from the past, yes,  
but leave behind those things  
we hate and despise.  
Take the good, the laughs and the joy  
for these are wings for our souls  
and healing for our hearts.*

*So release the past  
and move on into the future.  
It is the past that we cannot change  
but the future that we hold in our hands.  
The future is ours  
to form and to shape and to build  
together  
as one.*

*Do we need to carry the burdens,  
the weights and the hurts of the past,  
and blame them for all our inadequacies?  
No, let us leave them behind and look,  
look at what we have now.  
Look at who we are  
and how we can move into the future.  
Look at where we are now  
and which way to go from here.*

*Look at today,  
and tomorrow,  
and remember.  
It is the future we hold in our hands  
and no one can take it from us.*

(Sue Fossé- 1999 Rhodes/SADC Certificate Course Participant from Mozambique,  
as quoted in the *EE Mail* August 1999)



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(Further information on the people interviewed is given in Appendix C.)

## **APPLICATION FORMS**

The application forms used are those of 1998 and 1999 applicants to the *Rhodes University/SADC International Certificate in Environmental Education*. These application forms are kept at Rhodes University: Grahamstown.

## **QUESTIONNAIRE RESPONSES**

These are the responses to the questionnaire handed out at the SADC-REEP workshop run at the EEASA conference – 10<sup>th</sup> September 1999.



## **LIST OF APPENDICES**

- APPENDIX A: List of SADC-REEP Publications**
- APPENDIX B: The Questionnaire**
- APPENDIX C: List of People Interviewed**
- APPENDIX D: Interview Schedule**
- APPENDIX E: Rhodes/SADC Certificate Course Application Form**
- APPENDIX F: Environmental Education Course Flyer**
- APPENDIX G: The Attachment Programme Application Form**
- APPENDIX H: Example of an Enviro-Fact Sheet**
- APPENDIX I: Example of an *EE Mail***



## **APPENDIX A**

### **LIST OF SADC-REEP PUBLICATIONS**

#### **Formative Documents Prior to the Establishment of the SADC-REEP**

*Splash* Newsletter January-April 1994 Workshop on Environmental Education for Youth. SADC, Maseru.

Draft Proceedings 2<sup>nd</sup> SADC Workshop on Environmental Education February, 1996. Umgeni Valley, Howick.

The SADC ELMS Programme on Environmental Education: A Proposal. December, 1996.

Review of Proposal: The SADC ELMS Programme on Environmental Education. March 1997, Marie Grönval.

#### **Documents Subsequent to the Establishment of the SADC-REEP**

The SADC Environmental Education Programme (Project AAA.7.12). Sida Three Year Plan of Operation and Budget. 1<sup>st</sup> July 1997 to 30<sup>th</sup> June 2000.

*EEMail* Four issues of this newsletter have been produced in both English and Portugese. These have been widely circulated and outline the activities of the programme including forthcoming events and courses. Increasingly the articles are being submitted by SADC course participants.

SADC Environmental Education Programme. Third Quarter Narrative, Financial Report and Year Two Plan of Operation. Maseru, April 1998.

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University - SADC-REEP.

**APPENDIX B:**  
**THE QUESTIONNAIRE**





**APPENDIX C:**  
**LIST OF PEOPLE INTERVIEWED**

## APPENDIX C

### LIST OF PEOPLE INTERVIEWED

NAME	COUNTRY	ORGANISATION	INTERVIEW DATE
<b>MANAGEMENT</b>			
Charles Obol	Lesotho	SADC-ELMS	9 <sup>th</sup> September
Teresa Squazzin	Zimbabwe	Learning for Sustainability	9 <sup>th</sup> September
Mike Ward	South Africa	SADC-REEP	Ongoing
Jim Taylor	South Africa	SADC-REEP	Ongoing
<b>PAST PARTICIPANTS</b>			
Ingrid Schudel	South Africa	Thomas Baines Nature Reserve	9 <sup>th</sup> September
Vladimir Russo	Angola	Ecological Youth of Angola	9 <sup>th</sup> September
Autman Tembo	Malawi	Department of Labour and Vocational Training	9 <sup>th</sup> September
<b>ATTACHMENT PROGRAMME</b>			
Lillian Ntalasha	Zambia	Ministry of Education	16 <sup>th</sup> September
Kwali Mfuni	Zambia	Environmental Council of Zambia	16 <sup>th</sup> September
Ngula Mubonda	Zambia	Environmental Council of Zambia	16 <sup>th</sup> September
Chilumba Nalwamba	Zambia	Ministry of Environment and Natural Resources	16 <sup>th</sup> September
Luzia Rangel	Angola	Ecological Youth of Angola	30 <sup>th</sup> September
Robert Richardson	American working in Lesotho	American Peace Corps	30 <sup>th</sup> September
Lynn Kota	Swaziland	Yonge Nawe Environmental NGO	30 <sup>th</sup> September
Joan Lohay	Tanzania	Environmental Management Council of Tanzania	30 <sup>th</sup> September
Filipe Duarte	Mozambique	Ministry for Coordination of Environmental Affairs	1 <sup>st</sup> October
Njogu Barua	Kenya	EcoNews Africa	4 <sup>th</sup> October



**APPENDIX D:  
INTERVIEW SCHEDULE**

## APPENDIX D

### INTERVIEW SCHEDULE FOR RHODES/SADC CERTIFICATE COURSE PARTICIPANTS

Name

Country

Year you did the course

Job/Role

How did you hear about the course?

- 1 What was the most significant aspect/orientation of the course for you?  
(What struck you most about the course you did?)
- 2 How did your perceptions of environmental education change during the course, if at all?
- 3 How have you been able to use what you learnt on the course back in your own country and job?
- 4 Have you been able to contribute to the development of the SADC-REEP in any way, if so how?
- 5 What other training needs do you feel the SADC-REEP could try to respond to?
- 6 Do you have any other comments or suggestions for the SADC-REEP?



## APPENDIX D

### INTERVIEW SCHEDULE FOR ATTACHMENT PROGRAMME PARTICIPANTS

Name

Country

Year you did the course

Job/Role

How did you hear about the course?

- 1 What was the most significant aspect/orientation of the course for you?  
(What struck you most about the course you did?)
- 2 How did your perceptions of environmental education change during the course, if at all?
- 3 How do you think you will be able to use what you learnt on the course back in your own country and job?
- 4 How do you think you can contribute to the development of the SADC-REEP?
- 5 What other training needs do you feel the SADC-REEP could try to respond to?
- 6 Do you have any other comments or suggestions for the SADC-REEP?

**APPENDIX E:**  
**RHODES/SADC CERTIFICATE COURSE APPLICATION FORM**



# Rhodes University SADC

## INTERNATIONAL CERTIFICATE in ENVIRONMENTAL EDUCATION

Professional development  
through participation in  
environmental education processes

SOUTH AFRICA  
1 August - 30 September 2000



WILDLIFE AND  
ENVIRONMENT  
SOCIETY OF SA  
*People caring for the World*



MacArthur  
Foundation



### BACKGROUND

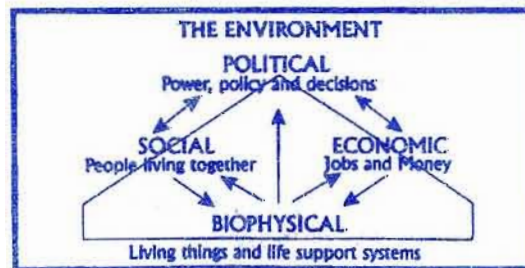
Rhodes University and the SADC Regional Environmental Education Programme are again offering a course leading to an international certificate in environmental education. This course builds on the success of the Rhodes University/WWF International Certificate in Environmental Education (1995 and 1997). In 1998 and 1999 the course was funded by the Swedish International Development Cooperation Agency through the SADC Regional EE Programme. The course in 2000 is offered by Rhodes University and the Regional EE Programme with funding from the MacArthur Foundation. To date 55 participants from 14 countries in Southern & East Africa have graduated from this course.

### AIMS & ORIENTATION

The course is for professional development in environmental education. It provides a structured framework and resources around which participants can enhance their skills to support, initiate and improve environmental education in their own contexts.

This adult education course embraces a view of knowledge as open-ended and socially constructed. In keeping with this approach we aim to provide diverse learning opportunities that encourage dialogue, encounter and reflection within a context of action-taking.

On this course 'environment' is understood as a concept referring to the interaction between the biophysical and the economic, political and social dimensions of our life worlds. Environmental education (EE) is viewed as a process of social change in response to the environment crisis rather than simply a subject or field of study.



Acknowledgement: Rob O'Donoghue

### COURSE OUTLINE

The course is *participatory* and requires a high level of involvement from all participants. The course will be *negotiated* around four themes:

- The Environmental Crisis: Issues and Risks
- Emerging Responses to the Environmental Crisis
- Environmental Education Methods and Processes
- Curriculum, Project and Resource Development

During the first two months of the course, participants will work with the course coordinators, guest presenters and each other to develop a better understanding of their work and environmental education. A variety of learning opportunities including lectures, group work, discussions, field trips and seminars enable participants to develop their skills in a rich and supportive learning environment.

Participants will also design a curriculum project to be implemented in their own professional situation. This project must be completed within six months of finishing the course.

### THE COURSE VENUES

The first month of the course is spent at the Department of Education at Rhodes University in Grahamstown. A renowned educational centre, this small town was once the frontier between the British and the AmaXhosa. Many environmental issues familiar to a wider African context are evident in this region.

For the second month of the course we move to the Umgeni Valley Project in KwaZulu-Natal. Here we have access to a number of important initiatives including the national office of the Wildlife and Environment Society of South Africa, the SADC Regional EE Centre, an education centre that runs hands-on courses for children and adults, and Share-Net where low-cost educational resource materials are produced. Like Grahamstown, this beautiful valley is surrounded by a variety of environmental problems, development projects and community learning opportunities.



## WHAT TO EXPECT

During the course participants will be introduced to environmental issues and developmental projects which elicit various educational responses. Participants are expected to critically examine these diverse responses with a view to improving their own work. The four excursions undertaken during the course provide an opportunity to contextualise the ideas which are explored on the course. The facilities of Rhodes University, the SADC Regional EE Centre and Umgeni Valley Project will be at the disposal of course participants. These include an excellent library, electronic mail, computers and resource production technologies. Accommodation in University residences and dormitory style EE centres is comfortable but not luxurious. Weather at this time of year is expected to be very cold. The course is run on low-cost budget principles.

## ASSESSMENT & CERTIFICATION

Assessment of participants' progress will be aimed at enhancing understanding and professional skills. Three assignments are completed during the course, and one assignment is completed after the course. Upon successful completion of the course, which includes the workplace-based curriculum project, participants will receive the Rhodes University/SADC International Certificate in Environmental Education.

## WHO SHOULD APPLY

The course is open to participants from Southern, Eastern and Central Africa with an appropriate tertiary qualification and sufficient experience in education. Multiplier potential, affiliation to training institutions and gender are considered during the selection process.

This course is suitable for those with a professional interest in working in environmental education. It should be noted that employment agencies will have different policies on accepting this qualification for promotion purposes.

Those with an interest in environmental science or nature conservation would be advised to consider courses focussing specifically on these concerns.

## COSTS INVOLVED

Rhodes University and SADC Regional EE Programme, will provide full bursaries to the 12 students selected to attend the course. The bursaries cover the costs of travel from your nearest airport plus accommodation, transport and meals in South Africa. Applications will also be accepted from participants who are able to pay the full course fee (US \$4 200). This includes travel, stipend, accommodation and other costs.

These bursaries do not cover medical expenses, travel insurance, visas, local travel to your nearest airport, excess baggage fees or other indirect costs that students may incur (eg. telephone calls). There are no *per diems*, only a small stipend of R50 per day to cover basic costs related to the course.

## APPLICATION

If you have the relevant qualifications and experience and would like to apply to participate in the Rhodes University/SADC International certificate in Environmental Education please complete the adjacent application form. Please ensure that the application form and supporting documents reach the course coordinator before the 31 January 2000. Applicants will be notified of the outcome of the selection procedure during the last week of April 2000.

Send your application to:

Dr Heila Lotz  
Rhodes University/SADC Course  
Gold Fields EE Service Centre  
Department of Education  
Rhodes University  
P O Box 94  
Grahamstown, 6140  
SOUTH AFRICA

Tel: +27 46 6038389  
Fax: +27 46 6223432  
e-mail: edhl@warthog.ru.ac.za

## APPLICATION FORM

I am interested in being considered for selection to participate in the Rhodes University / SADC International Certificate Course in Environmental Education. Please review my application and send details about the outcome and preparations of the course, to the following address where I can be contacted between January and July 2000.

Name .....

Address .....

.....

.....

.....

Telephone .....

Fax .....

E-mail (if available) .....

I include with my application the following documents essential for the selection process.

- A full *curriculum vitae* of my qualifications, professional background, other relevant skills and experiences.
- Validated photocopies of my most recent and relevant academic qualifications.
- A description of the work I am currently doing (two pages maximum)
- A two-page motivation outlining why I think I should be considered for this course. I include here details on how I can share my experience of the course with others in my work context.

These documents should be clear and concise as they are used in the selection process and in the development of the course curriculum. Incomplete applications will not be considered for selection.



**APPENDIX F:**  
**ENVIRONMENTAL EDUCATION COURSE FLYER**





**WILDLIFE AND ENVIRONMENT SOCIETY OF SA**  
*People caring for the Earth*

Founder member of  
**IUCN**  
The World Conservation Union

# SHELL / WESSA Environmental Educators Courses

## 2000

*Locating theory and resources within practical activities*

21 to 24 February  
3 to 6 July  
16 to 19 October



## BACKGROUND

The development of environmental education as a response to the environment crisis is an exciting process, a process which is resulting in a broadening understanding of the concepts 'environment' and 'environmental education'. Emerging out of this understanding are theoretical models, principles, resource materials and practical methodologies.

## COURSE AIMS

This course is designed to give participants practical experience of a wide range of environmental education methods. A variety of resource materials are used to support this objective, enabling participants to develop their skills in a rich, supportive learning environment. The course also examines models and theories which help inform the work that we do.

## COURSE CONTENT

The content of the course focuses on methods, techniques and skills developing within EE. These are explored through fieldwork in different ecosystems. The programme includes:

- research using urban or natural systems
- guided investigation of a grassland
- discovery on a rocky shore and
- interpretation in a nature reserve

Participants are required to return a completed questionnaire to enable presenters to take other needs into account when finalising the programme.

An important aspect of environmental education processes, namely resources and their production, often forms the highlight for participants as they leave with draft copies developed individually or in groups during the course.

## LANGUAGE MEDIUM

The language of instruction is English for all courses.

## THE LEARNING EXPERIENCE

This is a "hands-on" course requiring a high level of involvement and active participation from all participants. Brief lectures, extensive fieldwork in inland and coastal ecosystems, group discussions and small projects ensure an enriching experience. Networking with other participants, both during and after the course, is encouraged. The principles of Outcomes Based Education are integral to the course.

## WHO SHOULD ATTEND

The course has been developed to support practising environmental educators and those about to start work in this field. The course has also been found to be of immense benefit to teachers who wish to extend the learning opportunities available in the classroom. Participants who successfully complete the course are awarded a certificate. The course is recognised by the Hospitality and Leisure Industry (formerly HITB).

## COURSE LOGISTICS

- Course participants spend two days at both the Treasure Beach Project in Durban and the Umgeni Valley Project in Howick.
- Participants are required to provide their own transport to and from the Treasure Beach Project. If accommodation is required the night before or after the course, this must be paid for separately at each venue. Food for the extra nights is for your own account. Please confirm extra nights with the booking office before the course starts.
- The courses start at 08h30 on the first day and end at 13h30 on the last day. The intensive programme concludes at around 10pm each evening.
- For group/organisational bookings, please ensure that EACH participant obtains a copy of this brochure.

## COST

R510-00 per person.

## BOOKING SLIP

Send this booking slip together with the consent and indemnity form to us as soon as possible. Please include a R50-00 non-refundable deposit to secure your booking.

Post to: Umgeni Valley Project  
 PO Box 394, HOWICK, 3290  
 Tel: (033) 330 39 31  
 Fax: (033) 330 45 76  
 International: +27 33 330 39 31  
 E-mail: [umgenivalley@futurenet.co.za](mailto:umgenivalley@futurenet.co.za)

NAME .....

ADDRESS .....

TEL: (WORK) .....  
 (HOME) .....

NAME OF COMPANY/ORGANISATION: .....

JOB TITLE & DESCRIPTION .....

VEGETARIAN (circle) YES / NO  
 Specify what is NOT EATEN: .....

DO YOU REQUIRE EXTRA ACCOMMODATION?  
 Please telephone to confirm a week before the course.

THE NIGHT BEFORE: YES / NO  
 THE NIGHT AFTER: YES / NO

Please fill in the required indemnity and return. ⇨

## CONSENT AND INDEMNITY FORM

I, .....  
 (date of birth) ..... make application to participate in the Environmental Educators Course to be held from the ..... to the .....

I fully understand and accept that this course shall be undertaken at my own risk and I undertake to indemnify, hold blameless and absolve the Wildlife and Environment Society of South Africa and all persons and organisations associated with the course against any loss, damage to property, or injury to myself during the course.

- I accept the following conditions:
- 1) I shall abide by the instructions of those in charge of the course,
  - 2) I am physically fit to undertake fairly strenuous exercise,
  - 3) That I shall fully inform the above organisation of any allergies or recent illness in the space below.

Contact person in case of emergencies: .....  
 Telephone number: .....

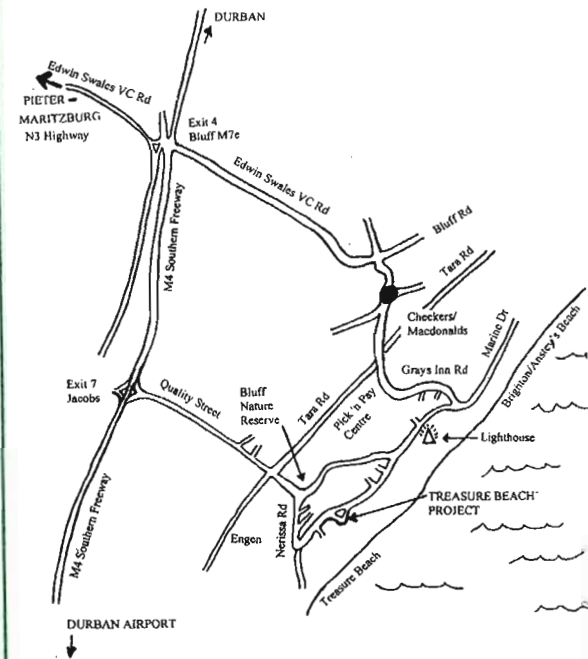
Signature .....

## TO BRING

All participants are required to bring the following:

- ✓ One sleeping bag/blanket roll/sheets & pillow
- ✓ any medication required
- ✓ clothes for all weather conditions
- ✓ 1 waterproof garment
- ✓ towel
- ✓ 1 pair very comfortable walking shoes
- ✓ 1 pair takkies/strops for walking in sea water on the rocky shores)
- ✓ 1 hat
- ✓ swimming costume and towel
- ✓ 1 small notebook and pencil
- ✓ Torch and spare batteries
- ✓ toiletries
- ✓ 1 water bottle
- ✓ suntan lotion.

How to find the Treasure Beach Project



If you are using public transport, check with the drivers first if they know the 'Bluff', which is a suburb of Durban, south of the harbour and near the Engen oil refinery.



**APPENDIX G:**

**THE ATTACHMENT PROGRAMME APPLICATION FORM**





Regional Environmental  
Education Programme



**WILDLIFE AND  
ENVIRONMENT  
SOCIETY OF SA**  
*People caring for the Earth*

## ENVIRONMENTAL EDUCATION

## TRAINING OPTIONS

2000



### Locating theory and resources within practical activities

The development of environmental education as a response to the environment crisis is an exciting process which is resulting in a broadening understanding of the concepts environment and environmental education. Emerging from this understanding are theoretical models, principles, resource materials and practical methodologies.

In response to a number of recent inquiries, the Southern African Development Community (SADC) Regional Environmental Education Centre, in collaboration with the Umgeni Valley Project and Share-Net, have decided to offer training options for Environmental Education Practitioners in the SADC region.

#### Collaborating Partners

**SADC REEC:** The Regional EE Centre was established by SADC to support environmental education the region.

**Umgeni Valley Project:** This is one of the projects of the Wildlife and Environment Society of South Africa which has been involved in EE for school children and Environmental Educators since 1972.

**Share-Net:** This is an informal collaboration of individuals and organizations working together to produce resource materials for Environmental Education.

The following training opportunities will be offered in 2000:

### 1. Four-day environmental Educator's courses.

Sponsored by Shell SA we are able to offer these subsidized courses at very reasonable rates. These four-day courses focus on activities and resources that support fieldwork. All activities and resources are adaptable to local conditions. Courses begin at the coastal environment in and around Durban and end at the inland environment in Howick and the surrounding areas. These are "hands-on" courses requiring a high level of involvement from all participants. Brief lectures, extensive fieldwork, group discussions and small projects ensure an enriching experience.

**Dates for 2000: 21-24 February**

**3-6 July**

**16-19 October**

*In addition, the following opportunities for professional development are offered:*

### 2. Environmental Education in/as Praxis

This longer programme will include the Environmental Educators course, described above, with an additional three days devoted to:

- # Environmental Education Theory and readings.
- # Resource/ curriculum development
- # An optional day devoted to the specific needs of participants.

Individual support and particular attention to theoretical concerns will be available during these three days.

**Dates for 2000: 21-27 Feb**

**3-9 July**

**16-19 October**



### 3. Visitorship / Attachment Programme

This is an opportunity for professionals to share the work with which they are involved and, in a one on one situation, to further develop resources or programmes that they are working on.

This programme will include the Environmental Educator's course, the environmental education in/as praxis plus three days to be spent visiting people, places and publications specifically designed around the individual needs of participants.

This forms part of the SADC Regional EE Programme where EE practitioners from the SADC member states visit the REEC for two weeks to share their experiences with and learn from the EE Centre staff.

**Dates for 2000: 21 Feb - 2 March**  
**3 -12 July**  
**16 - 25 October**

A specific function of this training option will be to equip participants to offer similar training in their respective countries.

#### Language Medium

The language of instruction for all three courses is English

#### Cost (fully inclusive)

- Four day Environmental Educators Course R510.00
- Environmental Education in/as Praxis R1400.00
- Visitorship programme: R3000.00

### Booking Slip

Please send this booking form to us two weeks before the course.

Post it to:

Umgeni Valley Project  
P.O.Box 394, Howick, 3290, South Africa

T: (033) 3303931 International 2733 303931  
F: 033 3304576 International 2733 330 4576  
E- mail: umgenivalley@futurenet.co.za

NAME.....

ADDRESS.....

TEL: (WORK).....  
(HOME).....

JOB DESCRIPTION.....

VEGETERIAN (circle) YES NO

Further details are available from:

Tim Wright  
Georg Friedel  
Sanele Cele  
Telephone : 033 3303931  
Fax: 033 3304576  
E- mail: umgenivalley@futurenet.co.za

### Consent and indemnity form

I, ..... (name and surname)  
(date of birth).....make application to participate in the ..... course(s)  
to be held from the .....  
to the .....

I fully understand and accept that this course shall be undertaken at my own risk and I undertake to indemnify, hold blameless and absolve the Wildlife and Environment Society and organizations associated with the course against any loss, damage to property, or injury to myself during the course.

I accept the following conditions:

- 1) I shall abide to the instructions of those in charge of the course,
- 2) I am fit enough to undertake fairly strenuous exercise,
- 3) That I shall fully inform the above organizations of any allergies or recent illness in the space below.

Signature.....  
Date.....



**APPENDIX H:  
EXAMPLE OF AN ENVIRO-FACT SHEET**



Unlike other international environmental treaties, it includes a concrete national commitment for practical action, particularly at the local level where desertification must primarily be fought.

The Convention on Desertification is very unique because it calls for close collaboration between non-governmental and community-based organisations, and governments.

The convention gives particular attention to the local communities and also focuses on women's participation.

### WHAT WE CAN DO?

Desertification often occurs over many generations, on a very large scale, and so it is difficult for individuals to take action. Some ideas for combating this problem include:

- ? Take part in the activities of conservation groups, present talks, and participate in tree planting programmes or capacity building through awareness campaigns.

### TOPICS FOR DEBATE

- ⊗ Does war contribute to desertification?
- ⊗ What is the relationship between land degradation and exploitation of natural resources, and war?

#### References:

- CEP, SARDC. 1996. *FACTSHEET # 18 - Convention to Combat Desertification*, CEP.
- Kemp, David. 1990. *Global Environmental Issues - Climatological Approach*.
- SARDC, IUCN, SADC. 1994. *State of the Environment in Southern Africa*, SARDC.
- Share-Net. 1999. *Enviro Facts # 8 - Desertification*, Share-Net.

#### Further Reading:

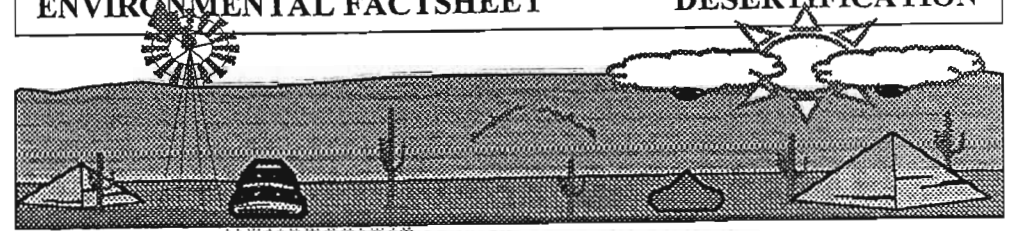
- State of the Environment in Southern Africa. 1994. SARDC.

#### Useful Address:

- Ecological Youth of Angola, P. O. Box 542, Luanda - Angola;
- E-mail: [jea@netangola.com](mailto:jea@netangola.com); <http://www.info-net.net/jea>

## ENVIRONMENTAL FACTSHEET

## DESERTIFICATION



**DESERTIFICATION** is a process that converts non-desert and productive land into non-productive land, usually as a result of poor land management, as well as other factors, including climatic variations and human activities.

Angola has been affected seriously by the Namib Desert and the increase in fuelwood demand in Benguela province, due to the growing number of people running away from the war. The demand for fuelwood in Angola has become unsustainable.

### WHAT IS CAUSING THIS PROBLEM?

Although scientists believe that desertification is a result of climatic variations, it is known that human activities are the primary cause of desertification, according to the following facts:

- ❖ **OVERGRAZING** happens when livestock or wildlife grazes the same area until the point where grass cover is depleted, leaving bare unprotected patches of soil with a corresponding increase in erosion by water and wind.
- ❖ **POOR LAND MANAGEMENT** often due to overuse or over exploitation of agricultural land and cultivation on marginal lands. The critical point is that it takes agricultural land out of production, increasing pressure on the remaining land.

For farmers to clear certain areas for agricultural purposes, they often use burning methods that are extensively destructive to forests and woodlands. This problem grows bigger especially where, if after burning, no proper land or grazing management is instituted.

Water erosion: a process of soil erosion, most severe in areas with long dry seasons and agricultural practices that leave little vegetation cover on the soil.  
Wind erosion: a process of soil erosion, most severe in dry flat areas where vegetative cover is poor and winds blow strongly.

- ❖ FUELWOOD consumption in the SADC region is among the highest in the world and it causes the destruction of vegetation in arid regions.
- ❖ POVERTY, which is on the increase in our region, contributes to desertification because the disadvantaged groups are forced to over exploit their environment in the short-term, without considering the long-term effects of their actions.
- ❖ NATURAL FACTORS, the most obvious cause of desertification is lack of rainfall or drought. A drought can be defined as the continued absence of expected rain. The other natural factor is climatic change, such as global warming or *El Nino*.
- ❖ ARMED CONFLICT can lead to soil degradation in areas with relative stability by concentrating large numbers of people in limited areas and this results in the depletion of plants and wildlife.

Desertification is not the spread of existing desert. Desert edges advance in dry periods, usually with a return to full vegetation when better rains return.

#### WHAT ARE THE EFFECTS OF DESERTIFICATION?

The reduction in plant cover that leads to desertification accelerates soil erosion by wind and water, thereby reducing the ability of land to support life, affecting wild species, domestic animals, agricultural crops and people.

A reduction in plant cover results in a reduction in the quantity of humus and plant nutrients in the soil. As protective plant cover disappears, floods become more frequent and severe.

Desertification is also responsible for the loss of biodiversity, for it entails the destruction of vegetation and the diminution of many plant and animal populations, habitats and ecosystems.

Desertification is a complex environmental problem, and it is one of the causes of migration to cities, resulting in overcrowding and unemployment.

Marginal lands: lands that are at a high risk of crop failure and very low economic return and are not suitable for cultivation.

Facts: 24 million tones of topsoil are lost to desertification around the world every single year. In Africa more than US\$ 9 billion is spent every year to support projects aimed at combating desertification.

According to the UN Environment Programme more than 900 million people in 99 countries are directly affected by this environmental problem. Desertification destroys the soil's capacity to support livestock or grow crops.

#### HOW CAN DESERTIFICATION BE HALTED?

There are no simple solutions to this problem. The only realistic approach is to prevent desertification through good land management in semi-arid areas.

An integrated approach is needed which may include:

- ☺ Enhance the ability of people to manage their resources better, taking into account ecological, social, economic and political factors;
- ☺ Improve the ability of people to make decisions about the use of shared resources, through the implementation of Agenda 21;
- ☺ Improve the ability of the people in rural areas to govern land use productively and to fairly distribute land among the people;
- ☺ Implement the "Convention to Combat Desertification";
- ☺ Implement awareness campaigns to prevent desertification and its effects.

#### CONVENTION TO COMBAT DESERTIFICATION

The United Nations Convention to Combat Desertification provides effective guidelines on how to plan more effectively to combat desertification.

At international level, 124 countries have so far signed and ratified this convention, which gives priority to Africa.

It commits every government that signs it to draw up a national strategy to deal with land degradation, to allocate sufficient funds to tackle this problem, and, crucially, to consult people before any decisions are taken.

Agenda 21: A plan of action aimed at achieving sustainable development which was adopted by world leaders at the United Nations Conference on Environment and Development (UNCED) in Brazil, June 1992.  
Facts: Angola ratified the Convention to Combat Desertification in April 1997, and has been developing projects focusing on tree planting campaigns and use of solar energy for cooking.



**APPENDIX I:**  
**EXAMPLE OF AN *EE MAIL***





# EEmail



WILDLIFE AND  
ENVIRONMENT  
SOCIETY OF SA  
*People caring for the Earth*

newsletter of the regional environmental education programme

ISSN 1029-5879

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## SADC Regional Environmental Education Centre

Contact Jim Taylor or Mike Ward  
Umgeni Valley Project  
P O Box 394  
Howick, 3290  
South Africa

Tel: + 27 - 332 - 303 931  
Fax: +27 - 332 - 304 576  
e-mail: [sadc-reec@futurenet.co.za](mailto:sadc-reec@futurenet.co.za)

## SADC EE CERTIFICATE COURSE

One of the highlights of 1998 has been the SADC International Certificate Course in Environmental Education run in collaboration with Rhodes University. Thirteen participants from the SADC region and one from Uganda were funded to attend the two month course. Twelve participants were funded by Sida through the SADC programme and an extra two people by WWF.

This edition of the *EEmail* has a strong focus on the 1998 course. A description of the course curriculum is included on the third page of this newsletter in an article that describes how a wide variety of open learning opportunities were created to enable the sharing of the diverse expertise in EE that the participants brought to the course. Also included in this edition as articles are three course assignments. In these articles participants examine and discuss a response to an environmental issue that they observed and developed while on the course.

We encourage any environmental education practitioners to link up with course participants in their areas. Contact details are included in this newsletter as well as a brief description of each participant and the assignments to be completed in their home countries.

Other highlights since the last edition of the *EEmail* include the very successful 1998 EEASA conference hosted by Botswana in July. The conference was attended by more than 600 environmental education practitioners from all over the SADC region with a few from even further afield. Particularly encouraging was the fact that nearly all of the

National Network Representatives of the REEP attended the conference. This provided a unique opportunity to strengthen and broaden the network and to discuss many aspects of the programme. The staff of the Regional EE Centre operated a well-supported market place stand in collaboration with SADC ELMS and ran a number of sessions related to the SADC REEP.

Two attachments visited the Regional EE Centre during November 1998 for ten days to both contribute to and benefit from the activities here. A short article on their experiences and the attachment programme is also included.

The Regional EE Programme's databank now contains a wide range of resources including videos, booklets, magazines, newsletters and posters from throughout the region. These are available for use by any visitors to the Centre.

During November Rikard Elfving of Sida and Charles Obol of SADC ELMS visited the Regional EE Centre to discuss the performance of the SADC Regional EE Programme to date. This turned out to be a very fruitful visit that left us all feeling that, despite many challenges, a lot had been achieved in the first year and a half of the programme and that there are many exciting opportunities to explore in the years ahead. Once again the staff at the Regional EE Centre would like to extend our sincere thanks to all those people who contribute so much to this programme. We look forward to working with you in 1999. &

## THE REGIONAL EE PROGRAMME

The purpose of the Regional Environmental Education Programme is:

*To enable networking partners, at all levels, to strengthen environmental education processes for equitable and sustainable development in the SADC region, through improved networking, resource material production and increased training capacity.*

The programme consists of three major components each with a number of activity areas:

1. **Strengthen the Regional Environmental Education Network**
  - Establish a Regional Environmental Education Centre (REEC)
  - Activate the Regional EE Network
  - Produce a Newsletter on EE
2. **Development of Relevant Resource Material for the Region**
  - Develop a data bank on EE material and expertise in the region
  - Develop a methodology and produce a handbook for incorporating Indigenous Knowledge into EE
3. **Development and Strengthening of Training Capacity in Environmental Education**
  - Develop, produce and distribute a curriculum framework for EE practitioners
  - Organise and support workshops to enhance training capacity in the region
    - Rhodes University/SADC Course
    - National workshops in the member states
    - "Attachments" programme

### What is WESSA?



Founded in 1926, the Wildlife and Environment Society of South Africa (WESSA) is the oldest and largest non-governmental, membership-based environmental organisation in South Africa. The vision of the Society is to strengthen our effectiveness as an independent, non-government organisation, working to achieve a South Africa which is wisely managed by all to ensure long-term environmental sustainability.

Environmental Education has long been seen as an important process in working towards the realisation of this vision and the Society's Umgeni Valley Project, where the Regional EE Centre is based, is one of South Africa's oldest and most established environmental education centres.

### What is SADC-ELMS?

The Southern African Development Community (SADC) is made up of 12 member states: Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. SADC is structurally organised into several development sectors, whose respective coordination is entrusted to the government of a specific member state.

The SADC Environment and Land Management Sector (ELMS) is hosted by the Government of Lesotho. An important part of the Sector's programme is to increase public information, education and participation on environment and development issues in Southern Africa.



# DEVELOPING A COURSE CURRICULUM

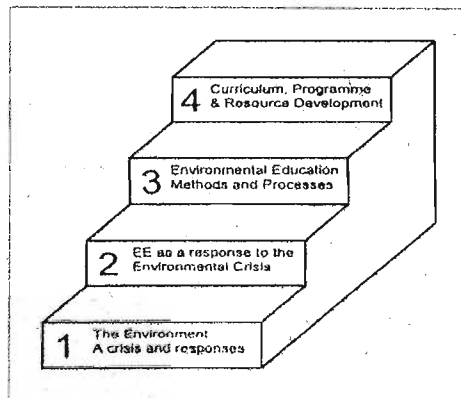
Developing a course curriculum which draws on and responds to participants' experience and expertise is a key principle of the Rhodes University/ SADC International Certificate Course in EE. In order to do this the course co-ordinators carefully reviewed the course applications drawing out key areas of interest evident in the descriptions of the applicants' current work and their motivation for being on the course.

Areas of interest included loss of biodiversity, Community Based Natural Resource Management, school-based environmental education, materials and curriculum development, policy and policy development, urban and industrial environmental management, environmental education methods and processes.

Once these themes had been clarified we identified key people, places and publications which could offer learning opportunities that would enhance our understanding of these issues.

By setting aside the first two days of the course to listen to everybody's stories we were able to identify and clarify the professional experience and expertise on the course. This helped us to gain some insight into what we might learn from each other. The course co-ordinators were also able to identify expectations and different professional needs of the participants.

To make sense of these stories and to shape a course curriculum we needed a clear framework to organise the expectations, experiences and learning opportunities. We used a broad framework (see the diagram of the course steps) of four key themes to provide



Course framework

some structure to the course process over the two months.

After identifying key areas of interest and linking these to the broad course framework we were able to identify a number of key outcomes to guide and evaluate the course.

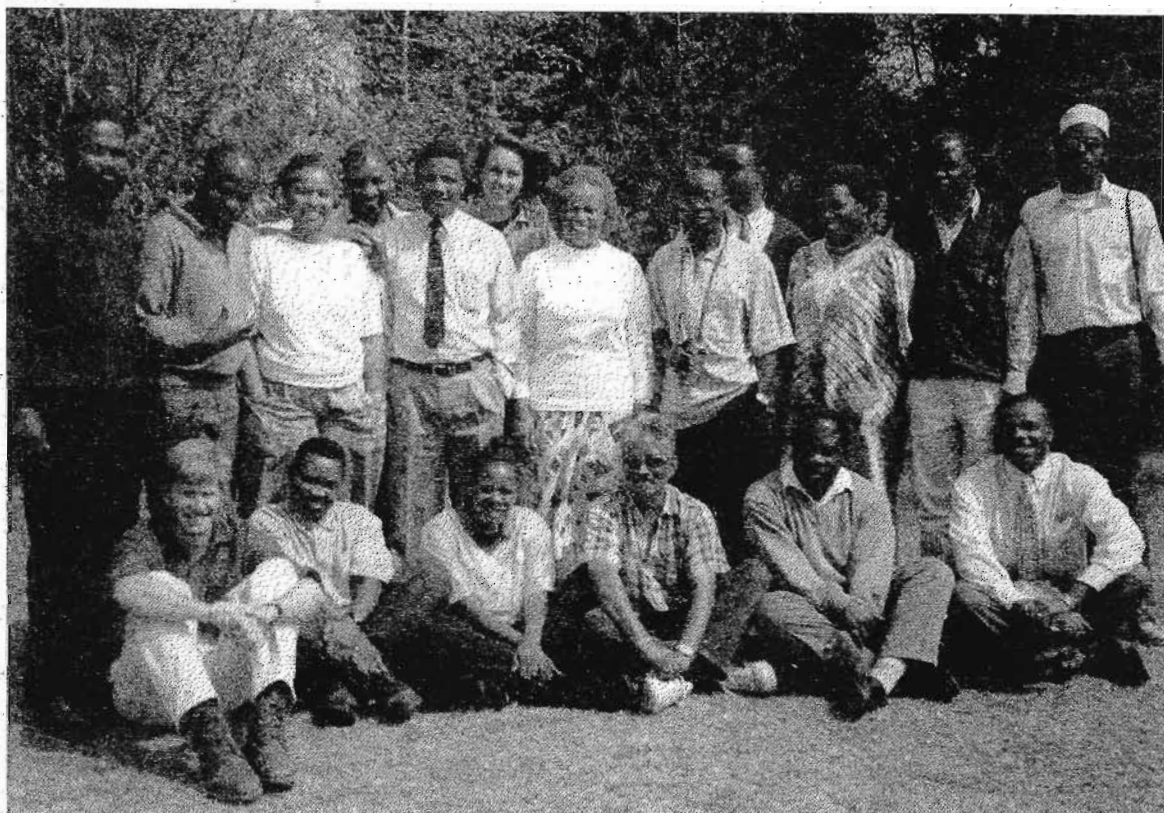
Building on participants' experiences we explored the concept 'environment' as a social construct, and the environment crisis as the interrelationship between biophysical, economic, social and political problems. The participants developed a range of Enviro-Fact Sheets on topics relevant to their individual contexts. Responses to these issues were explored through a number of field trips and presentations by course participants and other EE practitioners from the region.

Environmental Education Methods and Processes formed the focus of a workshop assignment and all participants were required to develop and run a workshop on an EE method of their choice. Workshops focused on Participatory Rural Appraisals as an EE method, setting up and running environmental clubs and evaluation within processes. The final assignment is a home-based assignment, brief descriptions of which are included with participants' contact details on the next two pages.

The orientation to curriculum development as a participatory learning process and the contextualised, responsive nature of the learning opportunities contributed to the success of the 1998 Rhodes University / SADC International Certificate Course in EE. &

*Heila Lotz, Mike Ward,  
Makume Tlaleane  
(course co-ordinators)*

# 1998 CERTIFICATE COURSE PARTICIPANTS



*Standing (left to right): Mosebetsi Mofokeng, Thabang Luvhengo, Mumsie Gumede, Reuben Fungai Muzawazi, Tarimo Bartholomew, Heila Lotz (course co-ordinator), Josephine Mremi, Justin Mukosa, Bhekisisa Ginindza, Victoria Mtilatila, Dick Kachilonda, Ali Thani*

*Sitting: Mike Ward (course co-ordinator), Makume Tialeane (course co-ordinator), Lesego Machangana, Kish Bhurton, Daniel Babikwa, Mutizwa Mukute (visiting presenter from PELUM, Zimbabwe)*

## **THABANG LUVHENGU**

### **SOUTH AFRICA**

PO Box 3032, Thohoyandou, 0950

Tel: +27 159 - 824844 Fax: +27 159 - 825800

Teacher at Tshilivuli School and involved in community clubs and societies. Home assignment: Support and develop local environmental clubs.

## **LESEGO MACHANGANA**

### **BOTSWANA**

PO Box 131, Gaborone

Tel: +267 - 371405 Fax: +267 - 312354

Environmental educator at Gaborone Game Reserve: initiation of projects, hands-on activities for schools  
Home assignment: Develop an open-ended Environmental Action curriculum for youth in EE centres.

## **VICTORIA Mtilatila**

### **MALAWI**

Private Bag 344, Lilongwe 3

Tel: +265 - 783277 Fax: +265 - 783805

Industrial hygienist in the Ministry of Labour and Vocational Training. Home assignment: Develop an EE curriculum to be used by industry in Malawi.

## **DANIEL BABIKWA**

### **UGANDA**

Makerere University, PO Box 7062, Kampala

Tel: +256 41 - 543251 Fax: +256 41 - 531896

Lecturer: adult education methods, political economy, participatory development issues and development studies. Home assignment: Develop an EE programme for a local councillors and CBO leaders in two districts of Uganda.

**MOSEBETSI MOFOKENG****SOUTH AFRICA**

Private Bag X809, Witsieshoek, 9870  
 Tel: +27 58 - 7130056 Fax: +27 58 - 7130750

Lecturer at Tshiya College of Education: **geography; development of environmental education materials.** Home assignment: *Develop course materials for student teachers at Tshiya College.*

**BHEKISISA GININDZA****SWAZILAND**

Mlawula Nature Reserve, PO Box 312, Simunye  
 Tel: +268 - 38885 Fax: +268 - 61875

EE officer at Mlawula Nature Reserve: **teaches visitors, produces teaching aids and works with neighbouring communities.** Home assignment: *Develop an EE programme focusing on aquatic alien plants.*

**JUSTIN MUKOSA****ZAMBIA**

WWF/ZEEP, PO Box RW 50551, Lusaka, 10101  
 Tel: +260 1 - 250805 Fax: +260 1 - 250805

e-mail: [wwf-zeep@zamnet.zm](mailto:wwf-zeep@zamnet.zm)

Project assistant for Zambia EE Programme: **involved in community education outreach through PRA; designing, implementation and monitoring of community-based projects.** Home assignment: *Plan a Participatory Rural Appraisal in a local village community.*

**JOSEPHINE MREMI****TANZANIA**

PO Box 297, Dar-es-Salaam  
 Fax: +255 51 - 462180

Teacher at Tosamaganga Secondary School: **biology and geography.** Home assignment: *Develop document on implementation of EE methods in secondary schools in Tanzania*

**TARIMO BARTHOLOMEW****TANZANIA**

PO Box 63154, Dar-es-Salaam  
 Tel: +255 51 - 134603 Fax: +255 51 - 134603

EE officer for National Environment Management Council, working closely with NGOs and CBOs and government institutions. Home assignment: *Develop a national environmental education strategy for the formal education sector.*

**DICK KACHILONDA****MALAWI**

Mpwepwe College of Fisheries, P Bag 7, Mangoch  
 Tel: +265 - 584800 Fax: +265 - 721117

Instructor in extension and EE at Mpwepwe College of Fisheries: **teaching school leavers, communities and upgrading of serving officers.** Home assignment: *Develop a curriculum for a 2-year environmental education programme at Mpwepwe College.*

**ALI THANI****ZANZIBAR**

c/o Commission of Natural Resources  
 PO Box 3526, Zanzibar  
 Tel: +255 54 - 31252 Fax: +255 54 - 31252

Training and forestry conservation officer: **organising and facilitating training and conservation education for communities.** Home assignment: *Develop an environmental education curriculum for local community on Pemba Island.*

**REUBEN FUNGAI MUZAWAZI****ZIMBABWE**

PO Box CY 385, Causeway, Harare  
 Tel: +263 4 - 705671/4 Fax: +263 4 - 793123

Training officer for the Department of Natural Resources: **research on environmental issues, training of staff in environmental management and extension of awareness to schools and communities.** Home assignment: *Plan a national environmental education workshop.*

**MUMSIE GUMEDE****SOUTH AFRICA**

Durban Metro Environment Branch  
 PO Box 680, Durban, 4000  
 Tel: +27 31 - 3002517 Fax: +27 31 - 3002225

e-mail: [gumedes@cesu.durban.gov.za](mailto:gumedes@cesu.durban.gov.za)  
 Environmental technician for the Durban Transitional Metropolitan area focusing on exploration of environmental education and development of environmental education materials. Home assignment: *Support policy for mayoral office in South Durban Basin.*

**KISH BHURTUN****MAURITIUS**

39 Avenue Des Manguiers, Quatre Bornes  
 Tel: +230 - 454 4647 Fax: +230 - 465 1184  
 e-mail: [npcsagr@intnet.mu](mailto:npcsagr@intnet.mu)

Interpretation officer for Black Gorges National Park: **involved in public relations and setting up park facilities.** Home assignment: *Adapt and trial a school environmental policy resource pack in two schools.*

**HEILA LOTZ****COURSE CO-ORDINATOR**

Gold Fields EE Service Centre  
 Department of Education, Rhodes University  
 Grahamstown, 6140  
 South Africa  
 Tel: +27 46 - 6038389  
 Fax: +27 46 - 6223432  
 e-mail: [edhl@warthog.ru.ac.za](mailto:edhl@warthog.ru.ac.za)

# WHOSE POLICY IS IT?

## ... A BRIEF LOOK AT ENVIRONMENTAL EDUCATION POLICY

*The practice of many environmental educators in the SADC region is influenced by policy or a lack of appropriate policy or inappropriate policy making processes. Policy can be developed at local, national, regional and international levels. Course participants took a closer look at some of the complexities of policy making. Mumsie Gumede (from South Africa) and Bhekisisa Ginindza (from Swaziland) provide some insight into the issues of policy making. They also briefly review the recent SADC environmental education policy development process.*

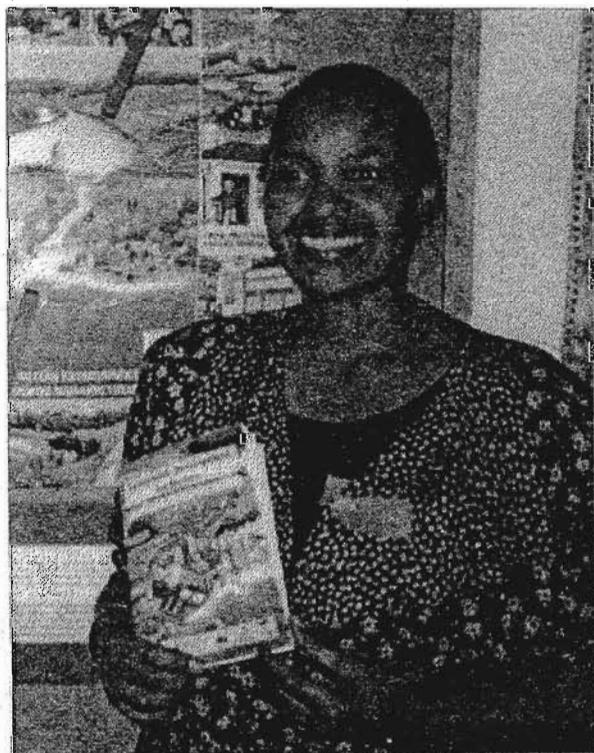
A policy is a statement of intent. The purpose is to move from where we are to a desired point, linked to action for getting there. How many policies have managed to achieve their purpose? What does it take to move from intention to an action plan? How does one tell if the policy is being effected or effective?

Over the years, various attempts have been made to develop environmental education policies. Globally and regionally, the principles and objectives have tended to be too vague and fairly difficult to implement and measure. It is said that in order for policies to be implemented, they must reflect local realities, opportunities and challenges.

### **POLICY MAKING PROCESSES**

It is important when conceptualizing policy to consider the influencing elements, which are the context within which the policy is being developed, the process of developing it, the content and the actors involved. Too often these elements tend to overshadow one another, resulting in difficulties when implementing the policy.

Previous thinking in policy making reflected a narrow view of the actors. The makers were totally separate from implementers, which led to limited acceptance and ownership of the policies. The development of the South African Environmental Policy (CONNAP) is a good example of a highly consultative process. All the actors - implementers and makers - were



*Mumsie Gumede holds the booklet she developed and which was launched when course participants were welcomed to Umgeni Valley. 'Sustainable Development for Durban' is an introduction to Local Agenda 21 and metropolitan environmental legislation.*

involved. This is seen by many as a stepping stone to a higher level of commitment by all to the policy.

### **PROCESS & PRODUCT**

It happens quite frequently that actors get so embroiled with the process that the product loses its meaning or the urgency of the product becomes

lost. On the other hand, urgency for the product sometimes supercedes the process and the quality of the product and commitment to it become lost.

The South African CONNEP process which took close to three years to finalize, clearly illustrates the length of time that can be taken in developing a highly consultative policy. Context is dynamic and what might be a priority today may have changed in a year or two. Also, while policies are confined to political boundaries, environmental influences have broader significance. So how does one reconcile all these dimensions of policy development, implementation and review?

#### **POLICY DILEMMAS**

Can every country afford the financial and time demands? Do we have to rely on donor funding to help us formulate our policies? What are the implications of this?

These dilemmas were evident in the December 1996 SADC ELMS programme's attempt to draw up an inclusive regional EE policy for the whole SADC region. This programme assumed a single policy for all SADC countries would work and did not take into consideration the diversity of local needs in different countries.

It is interesting to note how funders influence the programmes and outcomes of our programmes. Although Sida was not prepared to finance the SADC policy initiative, alternative funding was provided by USAID through NETCAB.

#### **EE POLICY GUIDELINES FOR SADC**

The focus of the programme has changed from development of a policy to drawing up policy guidelines which individual countries could use to guide their own environmental education policies.

It is more viable to develop guidelines by drawing on existing environmental education policies of member states. For those countries without environmental education policies, the guidelines could assist with their development.

This current policy process is a good example of the complexity involved in terms of time, the need to involve all actors, and the influence of the funders. It will be interesting to follow this environmental education policy initiative. &&

*The SADC REEP is currently exploring options for working with NETCAB on Phase II of this policy project. - Ed.*

# **INDIGENOUS PLANT PROPAGATION**

*Loss of biodiversity in the Southern African region emerged as a key issue facing many of the course participants in their home countries. Course participants investigated the many social, economic, political and bio-physical factors which contribute to this issue by observing initiatives to restore bio-diversity in different contexts. Kish Bhurton (from Mauritius) and Josephine Mremi (from Tanzania) report on three initiatives to propagate indigenous plants for medicinal and cultural use in KwaZulu-Natal, South Africa.*

**I**ndigenous plant propagation is the planting and care of native plant species. Plant propagation may begin with seeds or with vegetative material (sexual or asexual reproduction respectively). A nursery is essential for

germinating seeds, producing seedlings and for vegetative propagation. Propagation of indigenous species has several benefits. Indigenous species are resistant to many diseases and climate and a number are useful for medicinal purposes.



Moreover, indigenous plant species maintain a natural balance of ecosystems. When alien plants are introduced, their invasiveness can cause rapid and sometimes irreversible changes. The flora of many regions has been dramatically influenced by alien invasion, resulting in near extinction of plant and animal ecosystems, which for centuries had provided people with their basic needs.

#### COMMON PROPAGATION TECHNIQUES

Most plants can be propagated from seeds. If seeds are planted too deeply or too close to the surface, they will not germinate. Seeds should be planted at a depth equal to their length. The seed's hard covering may require very moist soil or the seed coat to be softened by soaking for a day. In order for seeds to germinate, there needs to be sufficient soil moisture, darkness and warmth.

Plants that are produced from seed are never identical to the parent plants, unlike those obtained through vegetative propagation. Vegetative propagation includes cuttings, layering, stem grafting and shield budding methods. Cuttings are generally 15 cm long and the bottom two thirds are inserted into open, well-drained soil or a jar of water for two weeks. All leaves should be removed, except for the top two. When several roots appear, the cutting can be transplanted into a bag or directly into the soil and watered well.

#### THREATS TO INDIGENOUS PLANTS

Every year thousands of indigenous plants are gathered from bushveld, grasslands and forests, putting severe pressure on the species collected. In addition, the habitat in which these species occur is shrinking as more and more natural vegetation is



Course participants visited Silverglen Nursery

destroyed for agriculture, industry and urban settlement. The massive demand for bark, roots, and whole plants from wild populations is causing a critical decline in population numbers of some species, and may lead to numerous extinctions. Alien plants are also reason for concern.

#### REMEDIAL ACTION

In South Africa, concern for indigenous medicinal plants has led to the establishment of several nurseries:

■ The **Silverglen medicinal plant nursery**, run by the Durban Municipality, cultivates about 120 at-risk species, many in large enough numbers to supply other nurseries. This nursery also supports the growing demand for medicinal plant material to KwaZulu-Natal.

■ The **Hilltop nursery** in the Hluhluwe-Umfolozi National Park has as its main aim the sustainable medicinal plant growing in traditional healers' (*izinyanga*) homesteads. Collaboration between the local community and the Natal Parks Board (now the KwaZulu-Natal Nature Conservation Services) has resulted in the formation of four *izinyanga* associations. The need for the location of the nursery inside the park came from the *izinyanga* themselves who were troubled by the scarcity of medicinal plants in the vicinity. They also felt that the siting of the nursery inside the park would be a deterrent against theft. School groups are encouraged to visit and learn more about the traditional medicinal plants.

■ The **Botanical Garden** in Pietermaritzburg houses a traditional Zulu hut surrounded by an array of indigenous species long used as traditional medicine. Here also, propagation, albeit on a small scale, is practised. Visitors to the garden have the opportunity to appreciate the usefulness of indigenous remedies.

The nurseries described above have developed a response to loss of biological diversity and the need to involve the concerned stakeholders. A recent initiative has been to focus on the issue regionally. Concerted meetings have taken place, bringing together the SADC member states. By exchanging information with neighbours and others in similar areas abroad, we can improve and increase successful propagation of indigenous trees and plants for medicine and food.

# ENVIRONMENTAL MANAGEMENT SYSTEMS

*Some of the course participants were interested in seeking clarity on the role of environmental education processes in environmental management systems (EMS). Course participants visited two industries: the Murray & Roberts Foundry in Port Elizabeth and SAPREF refinery in Durban. They also investigated environmental management of the South Durban Industrial Basin. Fungai Muzawazi (from Zimbabwe) and Victoria Mtlatila (from Malawi) provide further insight into some of the tools of EMS as a response to industrial and urban environmental issues.*

**E**nvironmental management systems (EMS) can be defined as part of an organisation's overall management system that deals with any of its activities that may have an impact on its environment. Generally, EMS should have a policy, objectives and targets to achieve sound environmental management. EMS has been developed to deal with diverse environmental problems which are faced by different types of organisations. These range from soil erosion, wetland degradation, water and air pollution, oil spills and waste management problems, health and safety issues. This article will focus on three environmental management tools.

## **ENVIRONMENTAL IMPACT ASSESSMENT**

EIA is a management tool designed to identify and measure environmental impacts, analyse alternatives and come up with mitigation measures before a project is commissioned. South African Oil Refineries (SAPREF) commissioned an EIA Study for a project to replace the undersea pipe. The study identified the major impact to be on the sand dunes where the pipe will be launched into the sea. A rehabilitation plan was designed and consultation was conducted with all interested and affected parties. Although the EIA was useful, it concentrated on a specific aspect of the oil refinery and did not address the environmental problems facing the organisation as a whole.

## **STRATEGIC ENVIRONMENTAL ASSESSMENT**

The purpose of SEA is to evaluate the potential environmental impacts of policies, programmes and plans. The SEA of South Durban Basin (1998) was initiated as part of local government's commitment to the Local Agenda 21 process which

seeks to integrate local communities into local government planning. The aim of this SEA is to address the implications of current development that has resulted in tension between the natural social and economic environments. The SEA also aims to provide strategic direction for future development in the area. SEA requires the mobilisation of more resources than EIA and is more time consuming but is also relevant in dealing with cross-sectoral issues.

## **INTEGRATED ENVIRONMENTAL MANAGEMENT**

IEM is a combination of pro-active and preventive processes and procedures that maintain the environment in good condition for a variety of short and long range sustainable uses. A number of stakeholders have embarked on an integrated catchment management plan for the Karkloof River Catchment, the catchment in which the SADC Regional Environmental Education Centre falls. This plan emphasises the systems, integrated and stakeholder approaches in addressing environmental problems. Although IEM is important in so far as it emphasises a holistic approach to environmental management, problems may arise in trying to implement many projects at the same time and in defining 'stakeholders'.

Increasing awareness of environmental issues and the demand for "green products" on a global level is putting pressure on industries to be more proactive than reactive in their approaches. Many industries are therefore becoming more receptive to adopting environmental management tools such as EIA and SEA. &



# MORE 'ATTACHMENTS' VISIT THE CENTRE

**D**uring November 1998, Gloria Chebanne from the Ministry of Education in Botswana and Naome Rajah from the Department of Natural Resources in Zimbabwe participated in the REEC's attachment programme. The programme provides an opportunity for EE practitioners to contribute to and benefit from the expertise and resource material pool at the Regional EE Centre.

Arriving at the Regional EE Centre, Gloria and Naome spent time examining and discussing Share-Net and other environmental education resource materials and grappling with how best to use computer technology. Both wanted to take back resources they had produced during their stay at the REEC. Gloria adapted a booklet for celebrating environmental days and Naome

developed an outline of the EE activities initiated by the Department for which she works.

As both were interested in curriculum, they attended an Environmental Education Curriculum Initiative Open Day Meeting in Pretoria during their stay. This Open Day focused on recent developments in Outcomes Based Education and EE in the South African school curriculum.

Gloria and Naome were also able to join in the Wildlife and Environment Society's Senior Education Officers' meeting and visited the Society's Treasure Beach Education Project in Durban. The ladies met and observed a group of school children who had come on an educational visit to the project



Gloria and Naome discuss the resources they developed during their stay at the Centre with Mike Ward.

*"It was interesting to see how the education field staff manage the large groups of school children. The trip was very educational in terms of natural resource management. This has enabled me to see how a natural wetland can be used in terms of effluent disposal from neighbouring industries"*

Naome Rajah

Gloria and Naome bade farewell to the Regional EE Centre after 10 busy resource-developing days interspersed with visits to EE centres and meetings with other environmental education practitioners. &

## ATTACHMENT PROGRAMME

The Regional Environmental Education Programme provides an opportunity for environmental education practitioners to participate in an attachment programme at the Regional EE Centre. People who feel that they would be able to contribute to and benefit from the expertise and resource material pool at the Regional EE Centre are encouraged to apply for a position on this programme. Successful applicants will spend an average of 10 days working with the centre staff on a wide variety of tasks with a specific focus on the development or adaptation of materials for use in their countries of origin. The Regional EE Centre will consult with the national network representatives when selecting people to participate on this programme. Applications can be sent to the network representative in your country.

# CALENDAR OF EVENTS

## **NATIONAL EE WORKSHOP - ZIMBABWE**

11-22 January 1999

*Organisers: Leigh Price & Reuben Muzawazi*

## **NATIONAL EE WORKSHOPS - MALAWI**

21-23 January & 25-28 January 1999

*Organisers: Dick Kachilonda & Victoria Mtilatila*

## **SADC EE NATIONAL NETWORK REPRESENTATIVES WORKSHOP**

23-26 March 1999

Regional EE Centre

## **INDIGENOUS KNOWLEDGE WORKSHOP**

5-9 April 1999

Regional EE Centre

*To develop a handbook with guidelines for incorporating indigenous knowledge into EE.*

## **EEASA '99 CONFERENCE**

7-10 September 1999

Grahamstown, South Africa

*Annual conference of the Environmental Education Association of Southern Africa*

*Contact: Nicola Jenkin +46 603 8390*

*e-mail: nicky@croc.ru.ac.za*

## **ENVIRONMENTAL EDUCATORS COURSES**

28 February - 3 March 1999

12-15 July 1999

24-27 September 1999

Umgeni Valley Project

*Locating theory and resources within practical activities.*

## **RHODES UNIVERSITY / SADC INTERNATIONAL CERTIFICATE IN ENVIRONMENTAL EDUCATION**

1 May - 30 June 1999

Rhodes University / Umgeni Valley Project

*Professional development through participation in EE processes.*

## **GOLD FIELDS COURSE LEADING TO THE RHODES CERTIFICATE IN ENVIRONMENTAL EDUCATION**

July 1999 - July 2000

South Africa

*Part-distance course for adults involved in all forms of environmental education.*

*Contact: Alison Kelly +332 303 931*

*e-mail: sharenet@futurenet.co.za*

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Please submit your calendar items for the newsletter to the Regional EE Centre.



Rikard Elfving of Sida and Charles Obol of SADC ELMS discuss plans for the Regional EE Centre. During their visit to the Centre in November, Charles and Rikard had a look at Centre facilities and discussed plans for future developments including the evaluation of the Regional EE Programme. They met Lynette Masuku, the new president of the Environmental Education Association of Southern Africa (EEASA). Although time was limited they were also able to visit a local school, Nobanda Junior Primary, to plant a special tree. Both will be back in March 1999 to attend the National Network Representatives meeting.



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### ***How can you contribute to and benefit from a regional EE programme?***

Share your experiences.....  
In keeping with the Regional EE Programme's  
orientation of sharing experiences in environ-  
mental education we would like to encourage  
you to submit short articles for *EE*mail.

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