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UNIVERSITY of the
WESTERN CAPE

Faculty of Economic Management Sciences

School of Government

**Environmental projects in schools in South Africa: A case
study of an environmental educational project at a working
class school on the Cape Flats**

By

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of

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Audrey Eleanor King

August 2015, Cape Town, South Africa

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List of abbreviations

CAPS	CURRICULUM ASSESSMENT POLICY STATEMENTS
DEAT	DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM
DOE	DEPARTMENT OF EDUCATION
EE	ENVIRONMENTAL EDUCATION
FET	FURTHER EDUCATION AND TRAINING
GER	GROSS ENROLMENT RATIO
GET	GENERAL EDUCATION AND TRAINING
GLENCO	GRASSY PARK LOTUS RIVER ENVIRONMENTAL COMMITTEE
KOGP	KIRSTENBOSCH OUTREACH GREENING PROGRAMME
NCS	NATIONAL CURRICULUM STATEMENT
NGO	NON PROFIT ORGANISATION
NQF	NATIONAL QUALIFICATIONS FRAMEWORK
OBE	OUTCOMES BASED EDUCATION
SA	SOUTH AFRICA
SANBI	SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE
SAPS	SOUTH AFRICAN POLICE SERVICES
SAQA	SOUTH AFRICAN QUALIFICATIONS AUTHORITY
SGB	SCHOOL GOVERNING BODY
SKAV	SKILLS KNOWLEDGE ATTITUDES AND VALUES
SME	SMALL MEDIUM ENTERPRISES

SPARCIES	STUDENTS PROMOTE AWARENESS RESPONSIBILITY CARE AND INVOLVEMENT IN AN ECOLOGICAL SOCIETY
SRPS	STEPHEN ROAD PRIMARY SCHOOL
WBS	WORK BREAKDOWN STRUCTURE
WCED	WESTERN CAPE EDUCATION DEPARTMENT
WESSA	WILDLIFE AND ENVIRONMENT SOCIETY OF SOUTH AFRICA



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Abstract:

This research identifies the challenges of a three-year environmental education project in a primary school in Cape Town. The project, an indigenous fynbos garden, was located at a school in a working class area in Cape Town's south eastern areas, also known as the "Cape Flats". The garden at the school was initiated as a formal partnership project with Kirstenbosch Gardens in 2006 and the partnership ended in 2009. The research sought answers to the following questions: to what extent and how have the goals/guidelines as stipulated in the Kirstenbosch Outreach Greening Project (KOGP) partnership been understood and implemented by the educators; what have been the kinds of support from school management for the project; what factors might increase the sustainability of the KOGP at Stephen Road Primary School? The research drew on policy implementation literature, in-depth interviews and personal observations. The findings were that while the project was doable, it was not in line with the declining human resources available and added to stresses experienced by teachers who were trying to perform basic tasks related to classroom teaching and getting learners to pass basic subjects. Also the school saw a dramatic decline in learner and educators numbers from 2006 onwards. Although all educators were involved in environmental activities at the school, none of them was fulltime in Environmental Education (EE) and had many other areas to teach or administer. The success of the KOGP also depended on the active participation of the school's management and the School Governing Body (SGB) and this also seemed to be lacking.

Keywords:

Environmental Education (EE) , project implementation, Cape Flats, apartheid education, project management, sustainability, Kirstenbosch Outreach Greening Programme (KOGP)



Chapter One: Introduction and background

1.1 Introduction

... how do we set out a research, education and action plan for our research centres, our universities, schools, teacher education institutions and family and community environments? What does a research, education and action agenda look like that ‘puts our own children first’? (Lotz-Sisitka 2013)

This research draws on the above question about “putting our children first” to explore the implementation process and challenges of an environmental education project -- an indigenous fynbos garden in a primary school situated in a working class area in Cape Town’s south eastern areas, also known as the “Cape Flats”. The particular formative project to be researched in this mini-thesis forms part of the Kirstenbosch Outreach Greening Programme (KOGP). The specific garden was a three year project which was introduced at Stephen Road Primary school in 2006 in Lotus River. From online sources, it seems that only one academic article has been published on the KOGP (Fullard 2006), so this is an under-researched topic. This research hopes to counter the sometimes uniform gloom that prevails in the literature about what is conceivable at “disadvantaged” schools. Importantly, it demonstrates that there is space for agency.

This chapter contextualises the topic and introduces the objectives of the study while providing an orientation and background to the site of study. It furthermore highlights the motivation for conducting this study. In addition, the research problem and important terms used in this study are introduced in this chapter. I include primary interview data in this chapter to set the context as seen by the local actors.

Stephen Road Primary School (hereinafter SRPS), where the KOGP has been implemented, is a government school, established in April 1978 by the Western Cape Education Department. The school is situated in the Lotus River/ Ottery area and serves a very underprivileged and traumatised community living in a relatively recent group area that emerged in the mid-1970s. The learners of SRPS come from the ganglands -- semi-detached housing schemes, the marble flats (“skurwe” flats-see Illustration 1) and the public housing schemes of the Cape Municipal Council as well as informal settlements. The residents of these areas were thrown together in the 1970s by the apartheid state and put into uniform rows of flats that were completely desolate and without recreational facilities. Most the families were removed from areas such as Constantia and from informal settlements all over the Cape Flats (Interview 02, Moos).

Illustration 1 : The Marble Flats in Ottery where the majority of the learners come from



Source: Moos 2008

According to Roleen Ellman (Interview 06), the Deputy Director at the Biodiversity Education and Empowerment Directorate at the National Biodiversity Institute, the Outreach Greening Programme (KOGP) was launched at Kirstenbosch in April 1997. The SANBI outreach greening programme (KOGP) sought to develop indigenous water-wise gardens at schools and to use the garden as a teaching and learning resource tool to incorporate EE into the curriculum (Fullard 2006).

Environmental education in primary schools has since the 1980s become a global trend (Robottom 1996). The roots of environmental education lie in the promotion of nature through school trips and camps and the boy scouts movements. In pre-1994 South Africa, the government “promoted love of country and outdoors among the white population who had access to the best places and facilities” (Cock and Fig 2000). An important aspect of the new South African Constitution (no. 108 of 1996) is the inclusion of socio-economic rights and environmental rights and the abolition of racial privileges in access to nature. This places responsibility on the government to work towards meeting the basic needs of society and improving the quality of the lives of the ordinary people and their access to amenities. The government included the right to education, access to health care services, housing, water and social security and the right to an environment that is not harmful to people’s health. The concept of sustainable development is also stressed in national policy discourses.

To ensure that the right to a healthy environment is realised, it became necessary to provide policies for the inclusion of EE into the national education system Outcomes Based Education (OBE). This would ensure a society that is environmentally aware and environmentally “literate”. EE forms an integral part of all eight learning areas in the

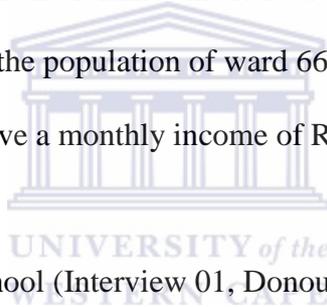
formal South African curriculum, with each learning area having particular environmental foci entrenched within it. The latter are all encompassed by the principles of the National Curriculum Statement (NCS). The NCS recognises the relationship between basic human rights, inclusivity, a healthy environment and social justice (Republic of South Africa ND).

1.2 Some specifics of the School and its area, Lotus River

It is crucial to have a basic grasp of the geographical area and particular background of any school since many of the challenges of school based projects might be traced to the external environment (Bhana, D., Morrell, R., Epstein, D., and Moletsane, R. 2006). Due to the Group Areas Act that was enforced in South Africa in the 1970's, Sydney Street Primary School in Cape Town was demolished in 1978 and some of their staff was transferred to Lotus River (Interview 02, Moos). In the beginning, according to Moos (Interview 02), the learner complement was approximately 800, and the school consisted of grades one to four, with respectively six grade one and two classes as well as grades three and four. The following year the number of learners grew to 1500. The male educators taught the grade four classes, and Afrikaans was the medium of instruction. During 1979 the first English grade one classes were introduced. By 2010, SRPS only had 652 learners in grade R through to grade 7 (Interview 02, Moos), and it had 20 educators, 2 secretaries and 3 cleaning staff members. School fees charged per student were around R400 per year, and other funds had to be generated by fundraising. The school's numbers have declined. Since then (between 2010 and 2014) the number of educators has dropped even further to 16 and the learner numbers to 500 (Interview 01 and www.opportunityeducation.org/school/view/id/215946).

Like most “township schools” SRPS has suffered a catastrophic decline since parents prefer to send their children to better schools. In addition the school is not a “no-fee” school and at the same time the governing body has not raised funds to employ to educators.

In the surrounding area of the school (ward 66), despite 92% of the population having access levels to basic services (water, electricity) and around 5% of the population in informal houses, gangsterism, socio-economic problems, unemployment, teenage pregnancies and crime is rife in this community. HIV/AIDS, violence, drug addiction, low self-image, racism, sexism and families in crisis are key social aspects. As indicated by the 2011 Census, “94% of the population of ward 66 is coloured; 74% are employed and 44% of the households have a monthly income of R3400 or less” (RSA 2012).

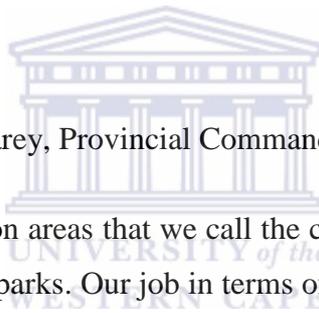


As a senior educator at the school (Interview 01, Donough) noted,

Learners are not resourced enough. There is no literacy at home. Literacy levels are low. Children are not helped by parents after school with their school work. There is a weak support structure from the parents.

The situation in Lotus River and the school echoes Lotz-Sisitka’s view that despite massive economic growth in the 20th century, persistent poverty and inequality still affect too many people, especially those who are most vulnerable. As she argues, “The challenges arise from values that have created unsustainable societies. The challenges are interlinked, and their resolution requires stronger political commitment and decisive action” (Lotz-Sisitka 2013).

Local economic development in this community and the opportunities and resources for such development are limited (RSA 2013). NGOs are active in the community, but access to resources, basic housing, health care, sanitation, food, energy, recreation, and transport and other services, safety and security as well as education remain a big challenge. There exists a great need for the community to be empowered, educated, developed and healed. Gangs and gang culture is a very pronounced feature of growing up and socialisation among children and youth in the former group areas such as Lotus River that make up the Cape Flats (Mncube 2014). Gangs and serious gang violence in the Western Cape started before 1994 and MacMaster (2007) argues that gangs in the Western Cape can be traced back to 1937 (Gangs in this context mean an organised group of criminals that are involved in violence).



As Major General Jeremy Vearey, Provincial Commander of Operation Combat noted,

Gangs make business on areas that we call the commons. The commons are your schools and your parks. Our job in terms of community mobilisation is to get the community to take back [the commons]. We direct our neighbourhood watch, we build street committees ... (cited in Swingler 2014)

Gangsterism is referred to by some analysts as “a sub-culture, and a way of life” (Lindegaard and Gear 2014: 35). Being part of a gang brings to most people a sense of belonging, power and material goods. Although there are various reasons why most people join gangs, most gang members in the Western Cape are drug dealers or drug-pushers. Van Wyk and Theron (2005) in a report tabled before the Parliament of South Africa, state that there are more than 100 000 gang members (gangsters) in about 137 gangs in the Cape Peninsula. The age of gang members ranges between 11 and 40 years.

The Report furthermore highlights that fact that there has been an upsurge of gang-related violence in the Cape Flats since the beginning of 2005. This particular upsurge is attributed to either a battle over turf involving the illicit drug market, or revenge killings associated with gang leaders released from prison. It was found that gangs operate within communities affected by poverty, where they often become providers of the basic needs of many people in the form of bribes, food, payment of rent and school fees. The killing of a pupil (Dane Darries) at SRPS was a particularly traumatic event for educators and learners and also helped to inspire the indigenous garden as a way to psychologically deal with violence.

Currently gang violence is still a major crime problem in the Western Cape despite police and community interventions that have taken place to try and curb this problem.

However, Van Wyk and Theron (2005) list two ways that seem to be effective when countering gangsterism and gang violence: The first one is community participation and the second one is youth involvement in the fight against gangsterism. The 2012 report (RSA 2013) stipulates that the most important thing that needs to be taken into account in the fight against gangsterism is the working relationship between the police and the community. As Major General Jeremy Vearey notes:

On the Cape Flats, your first experience with violence is not on the streets, it's in the house. By the time that you're 14, 15, 16, you've seen a hell of a lot more than what you've seen on the street when it comes to gender-based violence, when it comes to fighting. (Cited in Swingler 2014)

A subsequent report (Provincial Government, Western Cape 2014) highlighted that “boredom and low levels of self-esteem; drop outs of school system; the existence of gangs and gangsterism at schools” as factors driving crime.

In trying to find solutions to address causes of crime, the 2014 Report (Provincial Government, Western Cape 2014) significantly highlighted improved activity at schools as a possible factor in mitigating crime. “Youth placement programmes, youth centres, recreational activities and *expanded school activities* could benefit the youth in empowering them to be mature and to make better decisions about their lives”. Others like Pinnock (1984) have long argued that nature excursions for difficult teenagers might be a good way to curb gangsterism.

1.3 Environmental Projects at the School

SRPS is registered with WESSA as an eco-school. Two educators, Shelly Moos (an Intermediate- and Senior phase Head of department at the school) and Leah Amos (post level 1 educator), have also completed a certificated short course in Environmental Education offered by SANBI in conjunction with Rhodes University. However, on further investigation I noted that this was a short-course certificate (Thanks to an external reader for pointing this out).

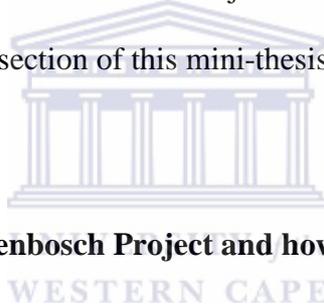
In 2008, after years of working without a formal policy, an environmental policy for SRPS was adopted by the school’s environmental Club called SPARCIES. Called *Students Promote Awareness Responsibility Care and Involvement in an Ecological Society* (SPARCIES), it was formed in 2003 and operated with educator support. According to its constitution (2008), it “recognises the importance of a healthy holistic environment – i.e. the social, economic and political environment underscored by the biophysical environment”. It will:

Honour those who strive to protect and conserve the environment; Respect those who work to build, develop, sustain and promote environmental awareness; Support those who enforce the laws to protect the environment; ... Unite to raise environmental awareness in all the diverse peoples of South Africa through education; Strive to inculcate the responsible and sustainable utilisation of the Earth and its resources; Commit ... to implement environmental action projects to address and restore the damage inflicted on the holistic environment.

Values to be taught include turning learners into *life-long learners* who “will live in harmony with the environment and who will use the earth’s resources in a responsible and sustainable way and who will always strive to settle their differences in a way to promote human rights and human dignity”. According to the Constitution (2008) the educators have to reflect regularly on the effectiveness, successes and challenges of their lesson plans and other planning structures and mechanisms to promote and provide meaningful learning and teaching. They have to also interrogate assumptions about environmental teaching and learning and actively eradicate bias and prejudice and provide opportunities to bring about fundamental lifestyle changes, development and growth.

The school’s ecological society focuses on spiritual and community building aspects such as “healing the environment, empowering the community, promoting lifelong learning, forming partnerships and building bridges between people to promote acceptance, tolerance, dignity and a greater understanding amongst people and the responsibility to the holistic environment” (SPARCIES 2008).

SPARCIES with Wildlife and Environment Society of South Africa (WESSA) became active in the *Eco-Schools* initiative in the mid-2000s. This partnership was funded by Nampak (Ringdahl 2014). SRPS Eco-schools earned 3 green flags and an international flag in 2009 (WESSA Correspondence 2012, Doc 04, see appendix D). Furthermore, as an institution, it has committed itself to use the platform of education -- incorporated in lesson plans -- to raise environmental awareness. The environmental policy of SRPS as incorporated in the SPARCIES constitution (2008) acknowledges that educators play a vital role in the interpretation and translation of education policy and the subsequent practical implementation and being the driving force behind school-based environmental learning. It is important to note that the WESSA project has no immediate link to the KOGP (although they share similar aims and objectives to be achieved by schools) which will be introduced in the next section of this mini-thesis. The KOGP is a separate project.



1.4 Background to the Kirstenbosch Project and how its programmes are designed

The school was accepted formally into the Kirstenbosch Outreach Greening Project (KOGP) in December 2005 (SANBI 2005, see Appendix E for a copy of the signed contract between SRPS and Kirstenbosch/SANBI authorities, Doc 01). The outreach greening programme works with “self-motivated schools” and community organisations to establish indigenous water-wise gardens (Matthews 2014). For SRPS it was envisaged as a three-year programme that strives towards the provision of the necessary knowledge and practical skills for learners, educators and community members in order to plan, establish, maintain and extend their gardens. The KOGP encourages environmental responsibility and economic empowerment amongst all stakeholders involved with the project at local level (Matthews 2014).

The aims and objectives of the KOGP programme, (SANBI ND) could be summarised as follows:

To establish indigenous water-wise school and community gardens; to encourage ecological awareness and environmental responsibility; developing gardening skills to enable economic empowerment and local environmental action; promoting the educational value of indigenous plants and gardens; and to develop partnerships between communities and organisations” (see appendix A for more details of the 2006 year plan, Doc 01).

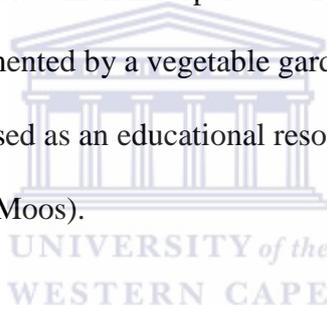
As stressed by Roleen Ellman of SANBI (Interview 06, 2015), KOGP uses strict selection criteria to select qualifying schools. Some of the criteria used by KOGP are:

The involvement of the school in environmental education projects; The existence of an environmental club at the school; Supportive principal and dedicated educators to drive the project; Support from the rest of the staff and community; The availability of a site and a clear vision for the project (Interview 06, Ellman).

The KOGP specifically requires that a school must have an existing environmental club that consists of approximately 15 learners, two dedicated educators, one grounds man and possibly, community members (SANBI 2005). Another important piece of background information (Interview 06 and Interview 02) is that KOGP obliges the school principal to play an active role in the activities of the programme since the KOGP have an impact on the overall school operations. SANBI paid for the yearlong contract for community based contract workers at SRPS, although Lukholo Training and Development was the actual employer. It was however the responsibility of the school to do the actual selection of employees who were on the payroll.

KOGP initiated workshops included basic horticultural training processes such as garden design, soil preparation, plant propagation and plant maintenance. SANBI education officers work closely with educators in developing the garden as an extension tool of their classroom for formal environmental education. There exists an opportunity within KOGP for unemployed community members to furthermore have the opportunity to learn gardening skills and they could be employed on a casual basis to maintain school grounds. The usage of the school grounds as a gardening resource for the production of food crops is encouraged by KOGP (Matthews 2014).

Some of the fundamental requirements as explained by local implementers at the school include: The greening of schools which incorporates an indigenous garden of no less than 600m². This has to be supplemented by a vegetable garden of no less than 150m². These indigenous gardens must be used as an educational resource for environmental education by the schools (Interview 02, Moos).

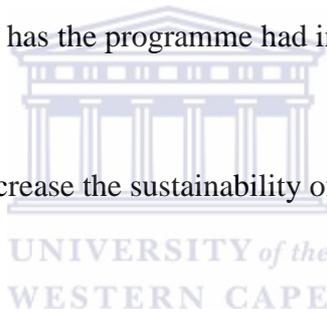


At the start, there were optimistic observations made by educators and other role-players at a school level. They thought that the KOGP partnership/programme had the potential to “reinforce teaching and learning practices and that educators and education departmental officials would value the support received from the KOGP” (Interview 02, Moos).

1.5 Aims and Key Questions of this research

The motivation for this research is to understand why environmental education projects that look very hopeful at first, fail. This research will explore answers to the following questions:

- To what extent and how have the goals/guidelines as stipulated in the KOGP partnership and project been understood, applied and implemented at the Stephen Road Primary School?
- What have been the kinds and levels of support from school management for the project;
- What positive spinoffs has the programme had in the context of relatively under-resourced schools?
- What factors might decrease the sustainability of the KOGP at Stephen Road Primary School?
- What, if any, are the prospects for doing environmental projects in primary schools in working class settings?

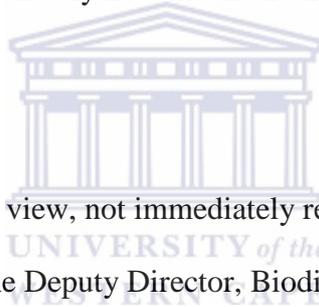


1.6 Research Design and Methodology

This study has been designed as an in-depth case study based on direct observation, semi-structured interviews and document analysis. I conducted in-depth interviews with five key individuals at the school: the school management, a head of department (Intermediate- and senior phase Head of Department), an educator (post level one), the Head school caretaker (who was intimately involved in the garden in a number ways) and finally a parent involved in the maintenance of the garden project over the period 2008 to

2013. I chose these individuals because they were either initiators and or implementers of the project at the school level over the course of the project; they have all in one way or another been involved in the KOGP. I did not interview all the educators because although they might teach EE, they were not involved in managing the Project (namely, the school garden); neither did I interview learners.

However, I visited the school during school hours doing direct observations about the use of the garden, the state of the garden, and also observed the use of knowledge and skills by learners. For example, I observed learners weeding, making cuttings, planting and working the soil. A major limitation of my research was that I was not able to observe classroom dynamics or verify directly how much and how EE was taught in the class room itself.



In order to obtain an different view, not immediately related to the school, I also interviewed Roleen Ellman, the Deputy Director, Biodiversity Education and Empowerment Directorate. She is based at the South African National Biodiversity Institute (SANBI), at Kirstenbosch Gardens. This individual was selected as a “key informant” because she carries in-depth knowledge of the Project that this mini-thesis explores.

Interviews were conducted at the school with the permission of the principal after my university provided a letter and ethical clearance. I used a set of guide questions for interviews, each of which lasted about one hour. The guide questions have been included in this mini-thesis (see Appendix B, Doc 02). The interview questions included educational background of educators, years of teaching/professional experience, exposure

and project training in environmental education (EE) at the school, inputs from different stakeholders at the school and the role they played in the implementation of EE at school. Moreover, I was keen to find out what factors might have impacted on the sustainability of the KOGP at SRPS, and what are/were some of the perceived positive spin-offs (benefits) of the KOGP at the school and more broadly.

The data from interviews was recorded by dictaphone but I was also able to make notes during the interview. I then transcribed the recorded interviews. I found the interviews to be very valuable as they provided a prospect to capture the complexities of people's perceptions and experiences as noted by Patton (1987).

For the purpose of my research, I considered the style of questions to be asked at the interviews. I chose primarily open-ended questions to ensure that the responses obtained would lead to an improved understanding of the research problem. The questions did not require predetermined responses from the interviewees. Each person interviewed could also ask me for clarity about the questions and respond to the questions based on their own position in the hierarchy of the institution. In order to ensure uniformity, all the interviewees were asked the same questions in the same order during their individual interviews. Best and Kahn (1993: 200-201) classify such an interview as a "standardised open-ended interview which serves to access the different perspectives of the interviewees without allowing the researcher's perspectives to influence the interviewees' responses, thereby preventing biased and misleading data being presented".

The following issues were articulated by the educators interviewed: In addition to these educators being involved in the teaching of other learning areas within the school

curriculum, their duties involved extra-curricular activities as well, and educators, therefore, had little time to become ground-breaking and resourceful in attempting to integrate environmental education into their classroom teaching.

Official documents of the KOGP, and the school, (Annual reports, school magazines, files, signed contract between KOGP and the school, letters from KOGP), were also consulted. These documents provide an important source of data about project aims and contractual obligations as well as observations about the progress of the project.

The research is framed along the lines of a “formative” evaluation drawing on a qualitative support base and interpretivist methodology (Becker and Bryman 2004). I have as far as possible worked alongside the actors involved in the implementation of the project as well as done in-depth interviews so that the values, beliefs and meanings of agent’s actions could be explored. I am aware that this approach is criticised for being too subjective and not based on external observation. However my purpose was to get an insiders’ view from the perspective of participants themselves.

According to PREA (2014), an interview is a group or chain of questions that is intended to extract information from a person(s) when asked by an interviewer or completed unaided by the person(s) concerned. Furthermore, a semi-structured interview is a qualitative exploratory method that combines a preset set of open questions (questions that prompt discussion) granting the interviewer the opportunity to explore further interconnected responses from the interviewee.

A semi-structured interview thus does not limit interviewees to particular and preset answers. The intention in conducting a series of semi-structured interviews with this research was to shed light and understanding on the interviewee's point of view rather than to oversimplify.

1.7 Research Ethics

Ethics is about an array of processes that impinge on the scientific reliability of the research and its findings as well as the people and institutions involved in research. It covers the compilation, analysis, reporting of research demanding "honesty, moral courage and professional wisdom (Banks 2006) at all stages of the research.

In order to protect the identity of respondents, I have used pseudonyms except in cases of high profile public figures. I used the name of the case-study school but the names of all staff have been changed. The school name appears on many documents and given the uniqueness of the project with SANBI, I believe that the use of the name is justified. The purpose of using the data gathered for research was communicated to the respondents on the front page of the instruments.

The finding(s) of this study will hopefully also address the problem where certain educator education institutions do not offer EE as part of their educator training programme, implying that appropriate professional development programs should be made available in the area to promote a deeper understanding and fundamental knowledge of the environment, environmental issues and education for sustainability. This could then possibly assist with the empowerment of all relevant stakeholders with the KOGP initiative.

1.8 Organisation of the Study

Chapter One contextualises the topic and introduced the problem under study and furthermore provides an orientation and background sketch to this study. It introduces the research topic and highlights the motivation for conducting this study. In addition, the research problem and important terms used in this study are explained in this chapter. Furthermore it outlines the research methodology and procedures followed in data collection. It furthermore sets out the research design, and the validity, reliability and limitations of the study. It orientates the reader to the study by focusing on the objectives and the significance of the study.

Chapter Two provides a critical investigation of the literature available on the theoretical background of conceptions about environmental education, policy implementation and organisational culture. The role that Environmental Education plays in sustainable community development is also discussed in this chapter. In addition, this chapter develops the theoretical framework for this study.

Chapter Three provides a history of the emergence of EE in South Africa (SA) and how EE has been adopted by the national schooling system. The KOGP, under the guiding hand of SANBI and DEAT, has emerged out of these changes and also produced tensions between top-down versus bottom up approaches to policy development and implementation (as outlined in the previous chapter). This chapter also highlights a few challenges faced by the Western Cape Education Department (WCED) and the partnerships it forms with NGOs and parastatal bodies (such as SANBI). It brings into play the role played by the Wildlife and Environment Society of South Africa (WESSA).

Chapter Four outlines the analysis and interpretation of the data collected.

Chapter Five provides a summary of findings, recommendations and concluding remarks of this study.



Chapter Two: Environmental education and implementation of school-based projects: a literature review

2.1 Introduction

This chapter will provide a critical investigation of the literature available on concepts of environmental education in general and in South Africa, the implementation of projects and partnerships. The wider role that EE plays in sustainable development is also discussed in this chapter. In addition, this chapter develops a theoretical framework for this study.

Not enough detailed research exists on the question of how to implement EE in challenging school contexts such as found in schools on the Cape Flats (Lotz-Sisitka 2008, 2009). This research hopes to challenge the sometimes uniform pessimism that prevails in the literature about what is possible at “disadvantaged” schools. Importantly, it shows that there is space for agency.

An important aspect of the new South African Constitution (no. 108 of 1996) is the inclusion of socio-economic rights- i.e. they place an economic responsibility on the government to work towards meeting the basic needs in society and improving the quality of ordinary people’s lives. They include the right to education, access to health care services, housing, water and social security and the right to an environment that is not harmful to people’s health. The South African Constitution (no. 108 of 1996) enshrines the right to a healthy environment as part of the Bill of Rights.

In the period after 1994 a large number of campaigns were initiated by NGOs and social movements around the concept of environmental justice because a political climate in which the concept of environmental justice could flourish was formed despite the historical mistrust of black people that conservation was a largely white obsession (Khan 2002: 31). Khan (1990) concurred that Apartheid was a colossal pollution project at the expense of black people where blacks were increasingly associated with danger and dirt. However since then, much progress has been made in widening the ambit of what is regarded as “environment”, and the concept of social justice and equity have become fundamental in environmental politics (McDonald 2003).

The National Environmental Management Act (RSA 1998) emphasises the concepts of sustainable development and environmental justice in national policy discourses. In the mid-1990s, the South African National Parks through its directorate of social ecology focussed its EE on local schools and youth clubs (Cock and Fig 2002: 144). SANParks launched a major initiative to bring black school learners into “outdoor education”.

According to de Lange (2012) EE could be used to serve the South African nation, build social cohesion, and reduce crime in the local community, the child and education as a whole. Our schools should be a healthier environment that is conducive to learning, to sharing together. All stakeholders of education are in a position to assist more to improve schools, including the local community that a school serves. In South Africa, education plays a vital role in ensuring enrichment in the quality and value of life of all its citizens, the eradication of adverse poverty, reducing inequalities in general society and promoting sustainable development (Department of the Presidency 2012).

To ensure that the right to a healthy environment is realised, it had become necessary to provide for the inclusion of EE into the new national education system. This, it was hoped, would ensure a society that is environmentally aware and “environmentally literate”. Of recent, the National Planning Commission has adopted a “low carbon economy” model and has especially noted that “water was a crucial issue to the country and could be a “driver of change”. Government has also increasingly argued that there needs to be more “acknowledgement of eco-based biodiversity and natural resource, in terms of the economy and the link to tourism” (de Lange 2012: 1).

Manuel (2012) refers to development planning as the building of linkages between various strands of everyday life, for example, better quality schooling will make it easier for young people to access the labour market. This also enables workers to improve their productivity, leading them to raise their incomes and living standards. Manuel (2012) furthermore refers to poor quality education locking potential workers out of the labour market and when they do find work, trapping them in low-paying, low-productivity work. Thus EE could include these broad aspects.

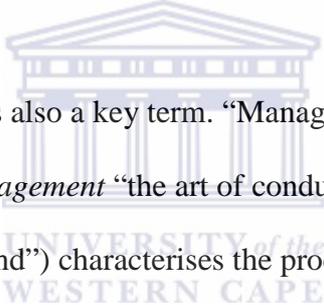
2.2 Environment and Environmental Education (EE)

Environmental education (EE) is defined by the International Union for the Conservation of Nature (IUCN) in somewhat sexist terms as:

... The process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among men, his culture and his biophysical surroundings. EE also entails practice in decision-making and self-formulation of a code

of behaviour about issues concerning environmental quality (International Union for the Conservation of Nature cited in Neal and Palmer, 1990: 2).

“Environment” is a contested term and has implications for what is meant by EE. Cronon (1995) for example argues that there is no such thing as “external nature” that is wild or pristine. Over time, notions of the wild have changed very radically, so that 200 years ago the wild was regarded as “savage, barren and waste” whereas today certain people will pay a fortune for a “wilderness experience” (Cronon 1995: 8). Many have challenged the “green agenda” view of environmental issues by suggesting that “brown agenda” – issues of housing, water, sanitation, air pollution, racism and social justice – are as equally important to EE as conservation of “nature” (Bullard, 1993).



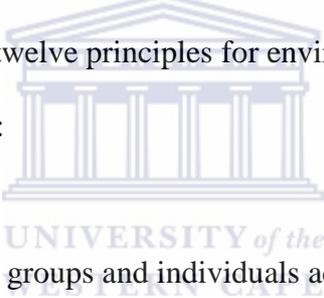
Environmental Management is also a key term. “Management”, according to Shead (2014), (from Old French *ménagement* “the art of conducting, directing”, from Latin *manu agere* “to lead by the hand”) characterises the process of leading and directing all or part of an organization, often a business, through the deployment and manipulation of resources (human, financial, material, intellectual or intangible. This definition incorporates the root meaning of the word back to the Latin phrase meaning “to lead by the hand”. Leading by the hand indicates that a leader is not asking the follower to do something he is not willing to do himself.

Stapp (1969: 30-31) argued that EE should be seen as a process that is aimed to construct “A citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution.” Among the goals of environmental education as listed by Stapp (1969: 30-31) the following is highlighted: “the development of knowledge and

understanding of biophysical environment and interrelations of all its components, and awareness and concerns for environmental quality as well as the development of “responsible behaviour patterns”.

Following this early work, one of the most broadly acknowledged later definitions of EE was tabled and accepted at the UNESCO sponsored Tbilisi Declaration (1977).

According to the Tbilisi Declaration, EE is viewed as a “life-long process that is interdisciplinary and holistic in nature and application”. It concerns the interrelationship between human and natural systems and encourages the development of an environmental ethic, awareness, understanding of environmental problems, and development of critical thinking and problem-solving skills. At the end of the Tbilisi Conference (UNESCO 1978) twelve principles for environmental education were produced alongside objectives:

- 
1. **Awareness:** to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems;
 2. **Knowledge:** to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems;
 3. **Attitude:** to help social groups and individuals acquire a set of values and feelings of concern for the environment, and the motivation for actively participating in environmental improvement and protection,

4. **Skills:** to help social groups and individuals acquire the skills for identifying and solving environmental problems;

5. **Participation:** to provide social groups and individuals with an opportunity to be actively involved at all levels in working towards resolution of environmental problems.

It was at the Tbilisi Conference (held in 1977), which followed soon after the launch of the United Nations Environmental Programme (UNEP), where the nature of EE was clarified. This conference resulted in a declaration which listed seven directive principles for EE programmes. Herewith a summary of a few key themes:

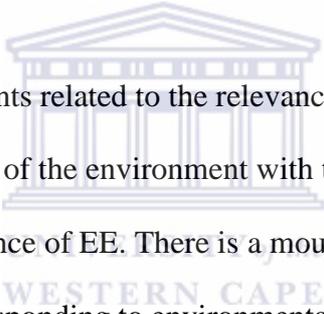
EE is a lifelong educational process that takes place at all levels of education. EE is therefore for developing attitudes and value systems, leading to socio-economic improvement through positive social interactions and the maintenance and improvement of the natural and built environment. EE aims to develop active participation in group efforts to find the optimal solutions for environmental problems. EE requires direct experiential learning in natural, built and social environments.

Lotz-Sisitka (2013) furthermore maintains that EE requires more than conventional surface approaches. It requires a fundamental rethink of our lifestyles and the kind of society and economy we wish to build (Lotz-Sisitka 2013). Moreover, such a “deep approach” as Olvitt (2012) argues, requires “reflexivity” in other words, critical introspection. Olvitt’s study of one individual, named “Paul,” provides an illuminating view of the “internal contradictions” in reflexive environmental awareness.

Deciding what is 'right', and then teaching others about that 'rightness' is not as simple as knowing the facts or norms, and acting on them. Past experiences, cultural norms, religious convictions, power gradients and

even logistical constraints, all influence the nature and outcome of individual ethical deliberations, as do people's future aspirations and their professional identities as environmental educators (Olvitt 2012: 758).

Therefore EE can be viewed as not only the concern of natural scientists, but draws from the tools and resources of a wide range of disciplines in order to reveal the root of current dilemmas and suggest ways in which learners as potential citizens could either prevent or remedy these. In addition, EE refers to organised efforts to teach about how our socio-natural environment functions and, particularly, how we can manage our behaviour and ecosystems in order to live sustainably. The term is furthermore used to imply education within the school system, from primary to tertiary level.



Finally, there are also constraints related to the relevance of EE. There exists a general indecision related to the status of the environment with the school curriculum and a lack of understanding of the relevance of EE. There is a mounting emphasis on the role education can be playing in responding to environmental issues and risks, yet at the same time most educators see education as an tool for one's careers, success and accrual of wealth (big cars, houses and etc). There are real constraints to the teaching and implementation of the current EE curriculum at schools. For example, the need for educators to change their teaching styles from 'chalk and talk' to facilitation of learning by educators and the inability to engage in learning programmes development. According to Le Roux and Maila (2004: 240) a few constraints relating to supporting active environmental projects is the inability to generate a whole-school approach, the lack of support from school management and finally, the lack of educator self-confidence to implement environmental learning.

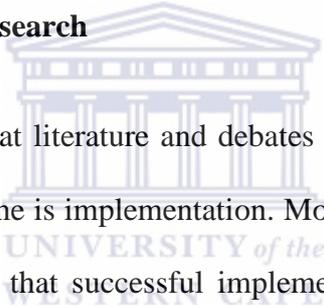
In South Africa, notwithstanding international (UNESCO 2005) and national acceptance of the relevance of EE, another constraint is that much indecision prevails about the status of EE within the school curriculum in South Africa (Maila 2003). As policy analysts have long noted top-down policy-making underestimates local barriers and constraints at the local -level. Yet, while these considerations might be true at a very general level, there are, however, more detailed dynamics at a local level that might shape the implementation of EE.

One of the basic values and principles enshrined in Section 195 of Chapter 10 of the Constitutions is that “Public Administration must be accountable”. Schools and the partnerships and projects that they undertake also need to be accountable. According to Krishnan (2008), the word “accountability” is synonymous with the words “responsibility, liability, culpability, answerability”. For the purpose of this mini-thesis a simple definition of public accountability offered, in the context of government in South Africa, would be the obligation to explain and justify conduct and decisions to a stakeholder.

Martins and Martins (2003: 380) explain organisational culture as “a system of shared meaning held by members, distinguishing the organisation from other organisations”, listing various factors that impact on the strength of institutional culture: inter alia, the size of the organization, the rate of staff turnover and the clarity of the cultural values and belief systems. Martins and Martins (2003: 380) furthermore indicate that global research specifies that organisational cultures create high levels of commitment and performance, creating a stronger employee commitment to the organisation, aiding in the recruitment and socialization of new staff members and fostering a higher organizational performance

by instilling and promoting staff initiative. Martins and Martins (2003: 380) highlight that “organisational culture helps to provide stability to an organisation, the community and South Africa as a nation”. This suggests that organisational culture is a valuable tool for managers in managing diverse employees and especially for new employees it would mean adaptive behaviour within the organisation that could lead to new belief systems. The organizational culture is impacted upon by the behaviour of top management and the socialization of new staff members to assist them in adapting to the organizational culture. In the case of the school in Lotus River, there have been many attempts to ensure both good governance and strengthen institutions as will be elaborated on in this thesis regarding the running of the eco-project.

2.3 Policy implementation research



In this section, I briefly look at literature and debates about policy implementation. The test of any policy or programme is implementation. Most policy analysis who support the rational view of policy agree that successful implementation needs sufficient time and resources to be available; no major external constraints that would hold up the programme; and critically a small and well-defined chain of command in the management system. They stress that a clear understanding of the desired outcome is needed among both policy makers and implementing agents. Agreement among all those involved in the project and “perfect communication” are needed to ensure that policies are not bent while being implemented (Hudson and Lowe 2004: 249).

Academic theory has divided between the rational school (also called the top-down model) and the muddling-through (bottom-up model) school (Hudson and Lowe 2004). A rational process is top-down and requires clear policy statements and rigorous

implementation guidelines and most of all compliance from implementers. At the lower levels where implementation takes place prescriptions handed down should be followed. Much of the top-down literature portrays individuals as little more than cogs in an organisational machine. Thus, in the case of an eco-project, the school educators (implementers) would have to follow the guidelines from KOGP to the letter. However, policies and programmes are rarely carried out in this way argues the bottom-up model.

In fact, Lipsky coined the phrase/term “street level bureaucrats” to refer to the way in which implementers “bend” policy by what they do or omit to do when they implement a policy. Seeing policy as bottom-up indicates a greater recognition of local conditions and agents. Some bottom-up theorist go as far to suggest that in fact “policy is all about what happens at the moment of delivery and it is in effect this point in the policy cycle that defines policy” (Hudson and Lowe 2004: 251).

Recognising this, McDermott, Keating and Beynon (2012) suggests that effective policy implementation requires implementers to ‘translate’ national policy into local contexts. Translation denotes the adaptation of an external policy to fit with the local context (Ansari, Fiss and Zajac 2010). Similarly, a realist approach to policy tries to take into account the impact of frontline workers (or 'street-level bureaucrats').

One solution to the incompatibilities of the top-down and bottom-up approaches was devised by Elmore (1978, 1979), who argued that it is necessary to be “flexible and sensitive to the interests of policy makers, managers and the street-level operatives”. Elmore thus in essence proposes that we move away from thinking in “terms of 'top' and 'bottom' and think more in terms of organisational development”. Finally, Hudson and Lowe (2004: 260) recognises that implementation failures often result, not from “poor

management control or bureaucratic routine, but from the lack of consensus and a sense of commitment at all levels in the agency”. In other words securing local commitment of most local role-players is crucial for projects and policies to succeed.

In conclusion policy and project implementation are multifaceted processes linked to institution building and accountability. It is complicated because we have three spheres of government and policies are often pursued in conjunction with the private sector, civil society and interest groups. Finally, we need to note the context of working class schools in South Africa.

As noted by Bhana, Morrell, Epstein, and Moletsane (2006):

there is no provision made in the curriculum for counselling or ministering to the emotional needs of students. In the past, most white and Indian schools had school guidance teachers or counsellors (whereas under resourced black schools tended not to have such teachers). Under the new funding formula, no provision is made for the employment of school counsellors. Serious problems are referred to provincial departments where staff employed in ‘Psychological Services’ are on call.

This is an aspect we shall elaborate in the next chapters. Chapter Three will now provide a history overview of the emergence of EE in SA and how EE policy has been adopted by the national schooling system. It will furthermore highlight a few organisational challenges faced by the Western Cape Education Department (WCED) and the partnerships it forms with NGOs and parastatal bodies (such as SANBI).

Chapter Three: EE institutions in post-1994 South Africa

Chapter Three will provide a history of the emergence of EE in SA and how EE policy from above has been adopted by the national schooling system. It will also shed light on how the KOGP, under the guiding hand of SANBI and DEAT, have taken up these changes and how these have also produced tensions between top-down versus bottom up approaches to policy development and implementation (as outlined in the previous chapter). It will furthermore highlight a few organisational challenges faced by the Western Cape Education Department (WCED) and the partnerships it forms with NGOs and parastatal bodies (such as SANBI). It also brings into play the role played by the Wildlife and Environment Society of South Africa (WESSA).

3.1 EE as a subject area in South African Education Curriculum

Irwin (quoted in Le Grange 2002) states that in the apartheid era the EE movement was pioneered by non-governmental conservation agencies and state conservation agencies. Before 1989 in South Africa, no nationwide, state driven attempt was attempted to include EE into the formal national school curricula. The first attempt, as mentioned by Mosidi (cited in Le Grange 2002), occurred in the 1989 White Paper on EE. A second milestone was in 1993 which marked the year in South Africa when serious efforts were made to include EE into the formal curriculum. The latter process was initiated by the Environmental Education Policy Initiative (EEPI) which attempted to influence the policy and curriculum development activities around EE. This was followed by the Environmental Education Curriculum Initiative (EECI). According to Sguazzin (2002: 2), the EECI under Prof Kader Asmal as Minister of Education, had an immense impact on the national curriculum development process.

In post-1994 South African schools, the Outcomes Based Education (OBE) curriculum in the senior phase of the General Education and Training (GET) band comprised eight learning areas. EE did not become a stand-alone subject in SA schools. However, the education policy described EE as a “vital element” for all educational levels and programmes with the purpose of creating “environmentally literate and active citizens” (DOE 1995:18). Consequently, EE merged into the formal school curriculum, not as a subject, but as a theme to be included across all subjects, making EE the responsibility of every educator. A noteworthy outcome of this whole process was the inclusion of EE in the Government White Paper (March 1995) on education and training, as one of the main views for Education and Training policy in South Africa in the 21st century.

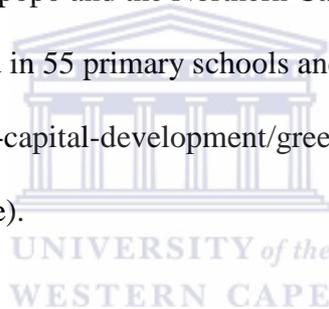
3.2 Recent developments

The National Qualifications Framework (NQF) is the central force behind transformation in education. The NQF stipulates 12 critical cross-field outcomes (of which three contain reference to the environment) intended to guide learning. Lotz-Sisitka and Olvitt (2009) argue that the key objective of the NQF is to enable the transformation of society. The purpose of the outcomes is to provide for opportunities through which policy on EE could be translated into practice (Le Roux and Maila 2004: 234).

CAPS (Curriculum and Assessment Policy Statements) form part of the National Curriculum Statement Grades R-12, which represents a policy statement for learning and teaching in South African schools. Grade refers to the South Africa's National Qualifications Framework (NQF) which recognises three broad bands of education: General Education and Training, Further Education and Training, and Higher Education and Training. The average school life spans 13 years or grades, from grade 0, otherwise

known as grade R or "reception year", through to grade 12 or "matric" - the year of matriculation. Under the South African Schools Act of 1996, education is compulsory for all South Africans from age 7 (grade 1) to age 15, or the completion of grade 9. General Education and Training also includes Adult Basic Education and Training. This is the definition adopted in this study.

Parastatal agencies like SANBI and external service providers play a crucial role in EE. KOGP later became the *Greening the Nation Programme*, which, according to Matthews (2014), is a DEAT funded programme started in 2005. It has been implemented by SANBI in 7 different Provinces, namely, Western Cape, Eastern Cape, Gauteng, Mpumalanga, Free State, Limpopo and the Northern Cape. Up to 2014, “indigenous gardens have been established in 55 primary schools and 32 high schools” (<http://www.sanbi.org/human-capital-development/greening-overview/kirstenbosch-nbg-outreach-greening-programme>).

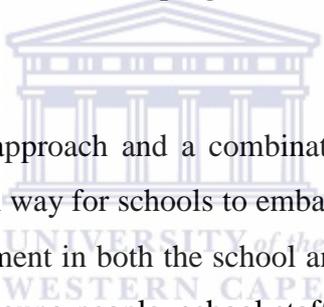


Sustainability is defined as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED 1987: 49). The KOGP employs what it terms “a systemic approach” in order to transfer the necessary and relevant skills to ‘Green Teams’ within the partner schools so that they can then successfully develop and sustain their own gardens. According to Ellman,

the sustainability of the programme relies heavily on a championship educator to be the main driving force. In KOGP-initiated workshops with the ‘Green Teams’ basic horticultural skills including garden design, soil preparation, plant propagation and plant maintenance are taught to educators and support staff. (Interview 06)

Another good example of a “service provider” to schools is WESSA with its “Eco-Schools” project. According to the WESSA website (<http://www.wessa.org.za> 2015), the Eco-Schools Programme is an international programme of the Foundation for Environmental Education and is currently active in 51 countries globally. The Eco-Schools programme, initiated in South Africa in 2003 by WESSA, is seen as a programme that will create “awareness and action around environmental sustainability in schools and their surrounding communities as well as supporting Education for Sustainable Development (ESD) in the national school curriculum”.

It is noted in the Wildlife and Environment Society of South Africa (WESSA) Eco-Schools Handbook that key features of the programme are that it has a :



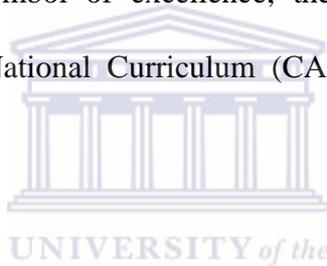
holistic, participatory approach and a combination of learning and action which makes it an ideal way for schools to embark on a meaningful path for improving the environment in both the school and local community, and to influence the lives of young people, school staff, families, local authorities and NGOs (see the www.wessa.org.za website).

This could prove beneficial to schools in terms of a whole-school development and improvement approach.

The Eco-Schools programme involves seven steps that any school can adopt. Some of these steps involve establishing an “Eco- Schools Committee to encourage and manage the programme; providing environmental curriculum to students which includes hands-on opportunities for students to improve and empower the school and community” and “developing an eco-code which outlines the school's values and objectives alongside

student goals”. The WESSA Eco-Schools Handbook (found on the www.wessa.org.za website) further explains that schools are evaluated after a “period of participation and successful schools are awarded with the Eco-School’s Green Flag and International Green Flag”.

These seven steps listed by WESSA could be seen as educators, learners, community members and partner organizations getting together to improve certain aspects of environmental management at their school. Concurrently, these projects could be used by educators to strengthen environmental learning at schools. The schools could furthermore, on a yearly basis, strive to improve on their efforts, thereby qualifying for an internationally recognised symbol of excellence, the Eco-Schools Flag. Eco-Schools South Africa supports the National Curriculum (CAPS) for Grades R-9, and Grades 10-12.



Recent developments in the Western Cape confirmed that there have been major challenges in EE implementation in the province and the City of Cape Town. In 2010, a meeting between the WCED and Education Service Providers tried to clarify why the WCED is concerned about some aspects of the involvement of service providers in schools: “we are looking at setting boundaries for the involvement of service providers in schools and cementing a beneficial and continuing affiliation between the WCED and service providers that could address education challenges” (WCED 2010: 3).

The Premier of the Western Cape Helen Zille (WCED 2010) raised her concerns that poor children should receive “high quality education and become proficient in reading, writing and calculating”. Children are not able to escape the poverty cycle if they leave schools

because they remain “under-educated “. We need to ensure that our schools remain safe places that “provide children with a sense of predictability” (WCED 2010).

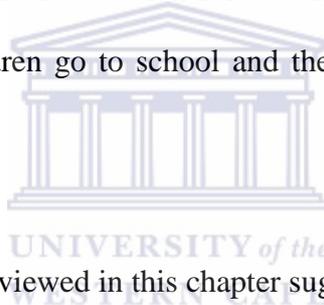
It also emerged from the WCED dialogues (2010) that the curriculum compliant service-provider activities taking place in schools are of a very good quality. However, the meeting furthermore noted that in some schools these extra activities:

disrupt the rhythm of teaching and allow teachers to abdicate responsibility for teaching. Well-equipped schools are managing and integrate supplementary programmes more effectively into the learning programme of the school than under-resourced schools (WCED 2010).

Vinjevold, who represented the WCED at the meeting (WCED 2010) was of the opinion that teaching is “sacred” and that effective teaching has the ability to enable people to escape “from the constraints of their environments”. She furthermore noted that the work done by service providers in schools to “promote sustainability and social justice is vital”; however, the challenge is to ensure that these programmes do not “unnecessarily disrupt basic teaching and learning”. These broad hints suggest that there are concerns about the way projects perhaps including eco-garden projects operate at many schools.

As noted by Lotz-Sisitka (2012) many examples of good practice exist in schools (via the Eco-Schools Programme annual portfolio’s and on-going school-based practices), and good policy frameworks exist (via the NEEP, who influenced curriculum policy). However “very little has been achieved in ensuring that environment and sustainability issues are consistently and coherently integrated into teacher education” (Lotz-Sisitka 2012). Sayed (2002) also argued that what is ignored in educational policy change is the

fact that changing policy intention does not immediately translate into changed practice. A similar view emerges in detailed ethnographic work by Hendricks (2004). As noted by Sayed and Motala (2012: 156-7), meaningful learning in most public schools in SA “remains an elusive goal.... Lessons often start late, much time is spent maintaining order, learners are passive (and) too much time is spent on administrative tasks”. Moreover they note that working class parents have no choice but to send their children to “township schools” given higher costs of transport and higher fees at better schools. They have little “cultural capital to support their children” compared to middle class parents (Sayed and Motala 2012: 157). According to Lotz-Sisitka (2008) “the realities of poor resources, high drop-out rates, and poor quality teaching in the school system in South Africa ... temper the idealism of education for sustainable development”. Yet, parents value the fact that their children go to school and they desire to contribute (Sayed and Motala 2012).



In conclusion, the literature reviewed in this chapter suggests that the policies initiated above (even if good) when implemented locally are fraught with problems related to resources, competing demands and organisational problems. Chapter Four will now outline the findings of the research on the school gardens at the case study site.

Chapter Four: The project at Stephen Road Primary School

This chapter will address directly the key questions of the mini-thesis as posed in chapter

One. These were:

- To what extent and how have the goals/guidelines as stipulated in the KOGP partnership and project been understood, applied and implemented at the Stephen Road Primary School?
- What have been the kinds and levels of support from school management for the project;
- What positive spinoffs has the programme had in the context of relatively under-resourced schools?
- What factors might decrease the sustainability of the KOGP at Stephen Road Primary School?
- What, if any, are the prospects for doing environmental projects in primary schools in working class settings?

To assist in clarifying the findings presented in this chapter the timeline of key events and process in the school eco-project has been included. The timeline shows that firstly, there has been a considerable amount of environmental interest at the school over time and involving a number of NGOs and donors. In addition to SANBI's involvement at the school there was also WESSA, OASIS, Wetlands Park, Bambanani, Enviro Centre, Konek, Parmalat, Drugs project and others indirectly related to environmental and personal and psychological wellbeing of learners. The plethora of groups speaks to the problem mentioned earlier in this thesis that schools and educators specifically might be

overwhelmed by external service providers who make different and sometimes competing demands on the resources and time of school personnel.

Table 1: Timeline of eco-activities and the KOGP indigenous garden at the school: 2006-2014

2005	Greening the Nation Programme started
2006	SPARCIES learners cleaning Lotus River canal
2006	KOGP launched at the school
2006	Kirstenbosch Lottery-Funded School Programme: Biodiversity and Education for Sustainability Educator Professional Development workshop: 4 educators attended
2006	Drawing of the Indigenous Fynbos garden plans. Preparation of the site/site cleaning. Soil preparation
2006	Planting water wise plants – at least 44 species – in the indigenous garden
2006	Composting, mulching and weeding strategies and action campaigns
2006	Removing alien vegetation – trees, shrubs, lawns etc – from the identified site for the garden
2006	Participation in SANBI workshops to acquire knowledge to, implement, maintain and sustain this garden
2006	Employing parents of the community to assist with the implementation and maintenance of the indigenous garden
2006	WESSA: Eco-Schools Silver Award obtained
2007	Reconstruction of a wetland on the school's property
2007	Formed partnerships with Edith Stevens Wetland Park Staff
2007	Indigenous Fynbos garden completed
2007	Formed a partnership with Oasis, an NGO in the community. Oasis is a Non Profit Organisation that focuses on the development and upliftment of underprivileged youth in marginalised communities
2007	Formed a partnership with Konek, a project of the Ukuvula Development Trust. This NGO introduced the school to the Cycling Development Programme.
2007	Organic Vegetable Garden for food production
2007	Drug Programme hosted in collaboration with Future Factory
2007	Safety programme run by parent volunteers under BAMBANANI
2007	Collecting old 2Litre cooldrink bottles and making birdfeeders with them to attract birds to the garden and to feed the bird during winter when it is hard to fend for themselves
2007	School grounds flooded for about 7 months

2007	WESSA: Eco-Schools Green flag
2007	Installation of the KOGP Water Tank. Compost making workshops
2007	Amanzi Bubomi (Water is Life) workshops
2007	Garden entrepreneurship workshops
2008	Stakeholders workshops held at SANBI Kirstenbosch
2008	Now known as the SANBI/DEAT Greening of the Nation programme
2008	Three Day Site Visit to Parmalat Enviro-centre in Kommetjie
2008	Extending the number of flowerbeds in the wetland area. Building habitats for birds around the wetland
2008	Monitoring water and electricity consumption. Implementing a watering and weeding policy for the whole school
2008	Channelling the water from the downpipes to the wetland
2008	Cynthia January and her outreach group UBUNTU Helping Hand has implemented a feeding scheme at school and in the community as part of a poverty alleviation initiative
2008	The City of Cape Town provided workshops to attend to strengthen the understanding of environmental education
2008	The SAPS ran a drug rehabilitation programme at the school
2009	Water audits and monitoring water consumption and reading the water meter daily
2009	Removing port jackson trees around the wetland and in the fynbos garden
2009	Completing wetland and creating ecosystems
2009	Moos and Amos, obtained a Rhodes University Certificate in Environmental Education
2009	WESSA: Eco-Schools international flag OBTAINED
2009	KOGP ends at the school
2010	Cannot maintain parent volunteer salary due to lack of school funds
2010-2013	Gradual decline of the Indigenous Fynbos garden

Source: Interviews and Annual Reports of SRPS

4.1 Understandings of the goals/guidelines of KOGP by educators (and changes in understandings)

According to Moos (Interview 02) the school adopted an approach to “holistic” environmental education informed by the Constitution of the Republic of South Africa, the South African Schools Act, relevant environmental legislature and policies, and the NCS principles. Institutionally, in the understanding of Moos (Interview 02), SRPS sees itself as a “community based school” in other words it relies on surrounding community and ecology for its existence. It incorporated this into the preamble of the Environmental Policy of the school where it highlighted the importance of a healthy holistic economic, social, political and educational environment that is underscored by the biophysical environment. Furthermore, as an institution, it has committed itself to use the garden as a platform of education (incorporated in lesson plans) to raise environmental awareness.

The school’s environmental policy as drafted by Moos (2008) acknowledges that educators play a vital role in the interpretation and translation of education policy and subsequent practical implementation being the driving force behind school-based environmental learning. The EE policy further stipulates -- as Moos 2008 points out -- that educators and other role-players and stakeholders will at all times strive to create the conditions at their school and in their communities which they serve to encourage and enable their learners to succeed in the teaching and learning milieu. The learners will furthermore be treated with respect and dignity and all the support will be rendered to the learners to help them to succeed and master learning.

They will always strive to make learning meaningful, deep and permanent where their learners can apply their competencies with understanding and confidence to bring about a permanent change in behaviour that is sustainable and purposeful (Moos 2008).

In response to the question: “How do you as an educator understand the KOGP”, respondents indicated that the indigenous garden “can assist the learners with their Biological studies. There was a big success rate initially” (Interview 01, Donough). “The KOGP is an initiative of SANBI where they give schools a 600 m² garden (indigenous), they train educators in Environmental Education and they extend the garden over a 3 year phase (Interview 02, Moos).

In response to the question “List a few initiatives run by your school to encourage Environmental Education”, respondents indicated that: “The SANBI project ... there was a tyre project to sustain vegetable gardening” (Interview 01, Donough). “We also were involved recycling of paper and plastic and food gardens” (Interview 04, Horn). In the picture below we see the tyre project.

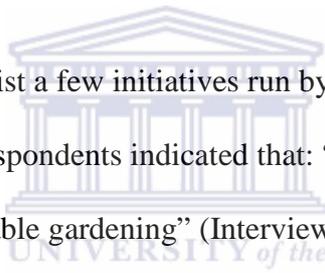


Illustration 2: Planting Indigenous Trees in the Garden



Source: Moos 2008

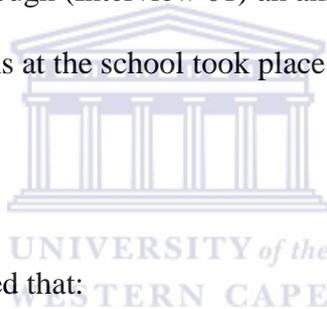
The understanding that parents have to be involved is illustrated with a comment made by a parent, Roy Deane (Interview 05) who said: “Everybody was excited with the plants that were growing. The school children were also excited because they could also look after a specific patch. The community was also excited and proud of the gardens”. This resonated with a comment made by Leah Amos (Interview 03): “We did not have to spend money on visiting Kirstenbosch for Science lessons as we could go into the indigenous garden at school as well.”

The school’s finance officer and support staff members endorsed the programme but also understood that they needed to “keep a tight check on the electricity consumption and water usage at school” (Interview 01, Donough). To save water and energy, the urinals at

the school were replaced by a stop and flush system. Leaks were fixed regularly and all lights are switched off at the end of the school day (Interview 04, Horn).

The three key EE educators at the school attended workshops and facilitated in-service training workshops and conferences about environmental education. They understood that the KOGP project could be strengthened at school level by active collaboration. They had active partnerships with the WCED South Metropole, SANBI and SANParks to access, gain and information about nature and biodiversity (Interview 02, Moos).

WESSA supplied the school with resources to keep abreast of developments in environmental matters and to share information about nature and biodiversity (Interview 02, Moos). According to Donough (Interview 01) an annual reflection on environmental issues and management actions at the school took place in order to inform future decisions.



Donough (Interview 01) argued that:

The policy must be re-visited however. This will be done in the near future. Somehow the educators have lost track what is in the policy itself. A level of ignorance exists on the side of educator with regards to the implementation of the policy.

Donough (Interview 01) also seemed to have rather narrow view of what constituted “policy success”. For example, EE was seen as a way to boost Biology marks “it can assist the learners with their biological studies. There was a big success rate initially”.

In summary, my findings reveal that most staff had a very good understanding of the aims and objectives and organisational issues involved in the indigenous garden at the

school. The visibility of the garden created wide interest from other NGOs and from parents.

4.2 What have been the kinds of support from school management for the project

The support for the project came mostly from the educators who had long teaching experience. Table 3 shows the longest serving educator has 32 years and the average years of teaching are 25 years.

Table 2: Teaching experience and EE Experience

Total Number of years Teaching Experience		
Tyrone Donough	32 years	Interview 01
Shelly Moos	28 years	Interview 02
Leah Amos	16 years	Interview 03
Years of Teaching EE		
Tyrone Donough	5 years	Interview 01
Shelly Moos	14 years	Interview 02
Leah Amos	7 years	Interview 03

Source: own research 2014

Significantly, younger educators are absent. The educators concerned, as shown by the summary in table 3 have also gained many years of EE teaching: the average is 9 years.

Institutionally, Stephen Road Primary School sees itself as a “community based school” and this is illustrated with comments about parental involvement to support the project.

Parents were employed (and paid) to work in the garden and volunteers served on the Enviro Committee.

As one respondent noted, “vegetable gardens were started using KOGP principles in our community”. (Illustration 3 shows how learners are physically involved in the planting of vegetables. “The parents felt good about the project because of the active involvement of their children” (Interview 04 and Interview 05). It can thus be argued that parents supported the project even if this was passive support.

Illustration 3: Organic Vegetable Garden at SRPS



Source: Moos 2008

The poor assistance from school management and the school governing body was noted. For example, while all respondents (educators) saw the EE policy as “effective”, the school’s leading person, the senior manager, held an opposing view.

A very serious constraint was that community members also did not want to volunteer for the KOGP without payment. The school, itself under pressure from declining learner numbers, also increasingly experienced “a cash flow problem”. Continuity was thus lacking as work on the school gardens was intermittent. According to Roy Deane the parent/gardener (Interview 05):

I was approached by Moos (Interview 02) to come in as the gardener. I was paid by the project itself until funds ran out and the school could not supply me with a salary afterwards. Due to lack of funding, the school scrapped the gardener post.

Horn (Interview 04) was furthermore of the opinion that because of “Lack of cooperation among educators ... the educators did not really ‘fight’ for the water issue”. So, when “it became apparent that the school was using a lot of water with the garden ... the garden was starved of water” (Interview 05, Horn). The water “issue” can also be seen in the context of the school being forced to pay tariffs for municipal water bills in terms of the Municipal Systems Act. Sadly, due to all these fundamental constraints, the school encountered numerous problems in adhering to the time frames for regular watering as set out in the partnership with KOGP.

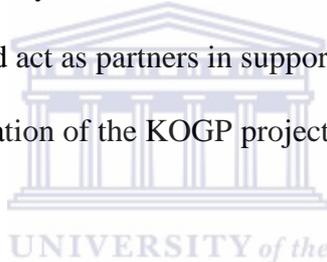
In summary, my findings reveal that while most educators agreed that management “was supportive”, some felt that this support was largely rhetorical. Many of the management team members were not actively involved in the project and a more involved person, Amos (Interview 03), noted “the SGB was not supportive”.

4.3 Which factors might decrease the sustainability of the KOGP?

There are several factors to consider in response to the question: “What factors might have impacted on the sustainability of the KOGP at SRPS”? Firstly, it is clear that financing the gardener was a huge problem. The school could not afford to pay the parent involved in the upkeep of the garden. Secondly, educators indicated that:

Learners are not resourced enough. There is no literacy at home. Literacy levels are low. Children are not helped by parents after school with their school work. There is a weak support structure from the parent (Interview 01, Donough).

In response to the question: “Do you encounter lack of materials and human resources and support systems that could act as partners in supporting teaching EE implementation and the successful implementation of the KOGP project at your school?”, respondents indicated that :



The materials, training and support provided by SANBI were top notch. The problem is a lack of manpower and interest from the new School Governing Body members and the new senior staff that is threatening the long term survival and objectives envisaged by the KOGP project (Interview 02, Moos).

The respondents had nothing negative to say about SANBI.

Thirdly, respondents noted that sometimes parents walk into the school assaulting educators or their own children. This undermined the dignity of educators and as led to declining morale. And another respondent blamed vandalism: “it is difficult to

maintain these types of projects especially where vandalism is concerned.” (Interview 03, Amos).

Another respondent noted that a cocktail of “poverty, deprivation, drugs, unemployment, gangsterism, crime, teen pregnancies” was part of the cycle of problems. This emphasis on the caring function of educators was echoed by yet another respondent, “Unemployment and substance abuse are priority issues” (Interview 03, Amos).

Fourth, respondents indicated that “CAPS has loaded the educators with more work and kept them more in the classroom than outside” (Interview 01, Donough). This “classroom workload” factor seems to be fundamental and also reflects the discussions among policy makers who have emphasised “back to basics” criteria for assessing schools (WCED 2010). Bhana, Morrell, Epstein and Moletsane (2006) similarly argued that “an overloaded curriculum and multiple complex demands on teachers mean that such responsibilities are very difficult and may go unperformed”. Bhana et. al. (2006) specifically draw attention to the extensive “hidden work of caring” and overt teaching roles that educators have to perform in traumatised community schools. Moos emphasised that the KOGP might have been a three-year project but for the school it was a long term commitment. “It’s a long term project and not just three years” (Interview 02, Moos).

Finally, the project seemed to have increased tensions between the educators, support staff and parents who I interviewed. The parents blamed the educators. “Lack of cooperation exists amongst educators.” (Interview 04 and Interview 05).

In summary, my findings reveal a number of negative factors (community, school and policy related) impacting on the project despite very good support from SANBI.

4.4 What, if any, are the positive spinoffs/impacts of the programme in the context of a relatively under resourced schools?

According to school management (Interview 01, Donough) in response to the question:

“What significance did participation in this programme have for your school?” the responsive was extremely positive. Donough said: “It actually placed the school on the ‘map’. The school became recognisable”.

Moreover, respondents indicated that,

Gardens were appreciated by donors/ visitors to the school. The classes benefitted as well.” (Interview 01, Donough); “Our learners could experience nature at school (see Illustration 4 where learners are actively planting in the garden). They were able to physically see a variety of plant and animal life” (Interview 03, Amos) and... “It led to the creation of beautiful fynbos gardens. Successful food gardens. Birds came back to the school”. (Interview 05, Deane).

Illustration 4: Planting Indigenous Trees in the Garden



Source: Moos 2008

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In summary, my findings reveal perceptions that were both positive and negative for the school. Initially staff and learners all took pride in the garden and work collectively to maintain and sustain it. The negative aspects were downplayed. But by the time the KOGP ended its partnership, several stresses and strains became evident.

4.5 A View from the National Biodiversity Institute

According to Ellman (Interview 06), the KOGP uses a “systemic” approach in order to transfer the required and appropriate skills to “Green Teams” consisting of learners, educators, grounds personnel and community members (mostly parents) that will equip them at their schools to successfully develop and sustain their garden.

My in-depth interview with the SANBI deputy director at the Biodiversity Education and Empowerment Directorate (Interview 06, Ellman) was revealing in respect of the “top-down” projects that rely on “champions” and speaks to the debates in policy implementation literature (see chapter two, specifically Elmore’s view on synthesising top-down and bottom up perspectives).

Ellman argued that SANBI was a project of national government allocated to SANBI (Kirstenbosch) and two other agencies in two provinces to implement in schools. The viability of these school projects is currently being studied with a report expected at end of 2015.

4.6 Conclusion

The motivation for this research was to understand why environmental education projects that look very hopeful at first, fail at a school level. My findings revealed that although staff had a very good understanding of the aims and objectives and organisational issues involved in the maintaining and sustaining of the indigenous garden at the school, most educators agreed that although management “was supportive” it was conflicted because of the demands of classroom teaching. Many of the management team members were not actively involved in the project.

After the KOGP project ended in 2009, the garden was neglected and by 2010 the parent in charge was no longer being paid. The researcher noted that educators got bogged down by administrative work related to classroom activity and most parents remained sceptical of the project. Educators, who were formally involved in environmental activities at the school, felt overworked and hence did not have time for what was seen as “extra work”.

This is a major finding consistent with the public view that education at government schools was in crisis because of low literacy and numeracy scores (Republic of South Africa 2011).



Chapter Five: Conclusions

We need transformative leadership for social justice, education and sustainable development; Leadership that bridges the intergenerational divide and that is premised on commitment to the public good and the well-being of children and the planet and its entire people. How to achieve this should be our primary research and practice question. It is indeed an enormous challenge (Lotz-Sisitka 2013).

What, if any, are the prospects for doing environmental education in primary schools in working class settings? In this chapter, I draw lessons of the Stephen Road experience regarding the implementation of the KOGP.

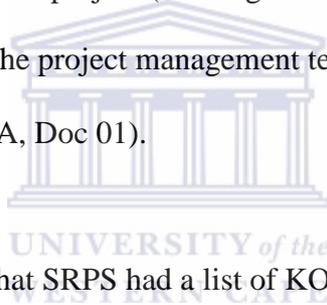
First, most respondents were painfully aware of the precariousness of the overall social environment in which the school operated. Constant fear and uncertainty made any kind of long term programmes seem daunting. Gang wars that split over into the school grounds, theft and break-ins, vandalism as explained in chapter one of this mini-thesis – are omnipresent. Educators have struggled with this caring function.

Secondly, respondents insisted that the school was a “community-school”, in other words it had to constantly negotiate its existence with the complicated entity called “the community”. Despite these external factors educators were able to assert some level of agency.

Thirdly, as observed by Moos, without the strengthening of the capacity of the educator (and the education department) in terms of curriculum-based environmental education,

the KOGP may not be sustained in schools, or at most, only in a fraction of schools. Moos further observed that the failure to turn the KOGP activities into meaningful learning experiences (for example using the garden to link to classroom work) endangered the entire project. It reduces its relevance to yet another “extra-mural” activity.

More specifically in regard to the project as it was originally designed, I found that the scope and imperatives of the KOGP project were too extensive and were not in line with the actual and in fact *declining* resources available. The ‘Green Team’ as project managers had to micro-manage the project while still fulfilling their teaching responsibilities. The scope of the project (as designed from above) might have too broad and it became impossible for the project management team to adhere to annual project deadlines (also see Appendix A, Doc 01).



The research findings shows that SRPS had a list of KOGP activities to accomplish but did not list what the tangible stakeholder’s benefits would be once the project is done.

A weakness noted was that although all educators are involved in environmental activities at the school, none of them were fulltime in EE and had many other areas to teach or administer. This is meant the educator’s time and energy was fragmented and this is a weakness when implementing environmental learning. This led to educators finding it difficult to see how they fit into the environmental learning and management programme of the school. The latter was a big factor leading to the initial problems in the KOGP at the school. The success of the KOGP also depended on the active participation of the school’s management and the SGB. The majority of bottom-up analysts agree that due to a lack of resources and their own job security fears often experience due to work

overloading, street-level bureaucrats (represented in this mini-thesis by educators, parents and support staff) felt “alienated and undervalued”(Hudson and Lowe 2004: 250).

Another weakness noted was that although many opportunities existed for the learners at the school, they did not participate in competitions and expos. There are also not enough taps on the school grounds to meet the learner’s needs. (In 2014 there are, however, plans in place to replace the taps and to secure them so that learners do not have to drink the water in the toilets).

Conflicting demands on teachers’ time and the official refrain from the state that “teaching is sacred” and that external service providers in schools “do not unnecessarily disrupt basic teaching and learning” have not been helpful policy messages to send to schools such as Stephen Road Primary. The “back to basics message” could discourage a more comprehensive understanding of education. Policy makers must be careful about sending mixed messages to the implementers of policy.

In conclusion this research, show that educators were finding it extremely difficult to see how they would balance new demands for raising literacy rates in the classroom (back to basics) with environmental programmes at the school. More focus, according to this researcher, should be placed on the concept of an integrated Environmental Policy at the school. This researcher also observed that the parents acquired considerable pride in the environmental project.

On many levels, the SRPS experienced and their partnership with the KOGP initiative, may serve as a pioneering example to other schools and organisations in developing integrated frameworks and instruments. There are valuable lessons also to be learnt about what should and would be emphasised and what must be avoided in the future.



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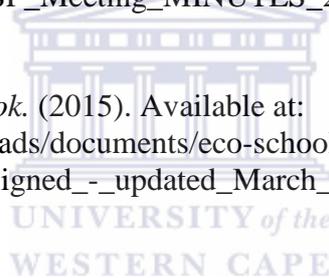
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List of Interviews and SRPS documents

Interviewee	Year of interview	Designation	Abbreviated Name(index) used in this mini thesis
Tyrone Donough (pseudonym)	2014, June	Principal of case study school	Interview 01
Shelly Moos (pseudonym)	2007, 2014, June	Intermediate- and Senior phase Head of Department at case study school	Interview 02
Leah Amos (pseudonym)	2007, 2014, June	Post level 1 educator at case study school	Interview 03
Elsa Horn (pseudonym)	2014, June	Head caretaker at case study school	Interview 04
Roy Deane (pseudonym)	2014, June	Parent volunteer at case study school	Interview 05
Roleen Ellman	2015, June	Deputy Director: Biodiversity Education and Empowerment Directorate, Based at the South Africa National Biodiversity Institute (SANBI), based at Kirstenbosch Gardens.	Interview 06
Stephen Road Primary School : <i>KOGP – Year Plan 2006</i>	2006	Appendix A	Doc.01
Semi-Structured Interviews Template	2014/2015	Appendix B	Doc.02
<i>SPARCIES Constitution</i>	2008	Appendix C	Doc.03
<i>Letter from WESSA Eco-Schools, dated 2012</i>	2012	Appendix D	Doc.04
<i>Agreement between Kirstenbosch (KOGP) and Stephen Road Primary School, 2005. December 17.</i>	2006	Appendix E	Doc.05

 Kirstenbosch Outreach Greening Programme "Growing and greening with communities" Year Plan 2006		 <small>SANBI national biodiversity institute</small>	
January <ul style="list-style-type: none"> ◆ 09-20 Jan: intern orientation (Gardens) ◆ 12-13 Jan: TMF-CBP workshop ◆ 16 Jan Planning meeting with service provider ◆ 18 Jan: Schools re-opening ◆ Site visits to current projects ◆ Updating workshop kits 	February <ul style="list-style-type: none"> ◆ 01 Feb: People and plants planting and introduction of plants ◆ 2 Feb: World Wetlands day ◆ Initial site visits to new schools ◆ 6-10 Feb: Planning meetings with existing project teams ◆ Procurement of implementation materials (service provider) ◆ 15 Feb Introduction of domestic gardens !!! 	March <ul style="list-style-type: none"> ◆ 02 Mar: TPD (2nd year schis) ◆ 18-19 Mar: Plant Fair ◆ 20-24: Water week exhibitions ◆ 15 Mar: TPD (2nd year schis) ◆ 29 Mar: Earth worms- site clearing and soil preparation major workshop 	April <ul style="list-style-type: none"> ◆ Practical site clearing and soil preparation at individual projects ◆ Plant orders ◆ Domestic gardens !!! ◆ Sponsors reports for end financial year ◆ 19 Apr: Planting and soil preparation major workshop ◆ 24-28 April: Delivery of plants to different school projects
May <ul style="list-style-type: none"> ◆ 02-5 May: Planting at individual school projects ◆ 22 May: Biodiversity Day 	June <ul style="list-style-type: none"> ◆ 5-9 June: World Environment Week ◆ Resolving maintenance issues with project teams ◆ Preparations for Open Days ◆ Domestic gardens workshops!!! 	July <ul style="list-style-type: none"> ◆ Monitoring maintenance of project gardens over school holidays ◆ Financial reports ◆ Preparations for Open Days ◆ Domestic gardens planting !!! 	August <ul style="list-style-type: none"> ◆ Individual project evaluation sessions after school holidays ◆ 15 August: TPD (2nd & 3rd year schis) ◆ Practical plant propagation sessions at individual projects ◆ Open Days at individual schools
September <ul style="list-style-type: none"> ◆ 06 Sep: Arbor activity (SANBI) ◆ 01-07 Sep: Arbor week activities ◆ Practical plant propagation sessions at individual projects ◆ Distribution of SANBI sign boards ◆ Open Days at individual schools 	October <ul style="list-style-type: none"> ◆ Site visits before exams ◆ Completion of Assessment Day report and circulation ◆ Open Days at individual schools 	November <ul style="list-style-type: none"> ◆ Resolving maintenance issues for Dec. holidays ◆ Compile list of potential 2007 projects ◆ Open Days at individual schools 	December <ul style="list-style-type: none"> ◆ Planning for 2007 ◆ Monitoring maintenance of project gardens during school holidays ◆ Sponsors reports ◆ 4-8 Dec: Financial reports ◆ 11-13 Dec: Evaluation (Overberg)

PLEASE NOTE: This is a proposed plan-dates will be negotiated with project participants

Appendix B: Semi-Structured Interviews : Interview Template Doc 02

Semi-Structured Face-Face Interviews: Interview Template

- To be addressed to key educators at the school
- To be addressed to principal and management at school
- To be addressed to key informants Kirstenbosch Greening Outreach programme (KOGP)

TO BE READ TO POTENTIAL INTERVIEWEE

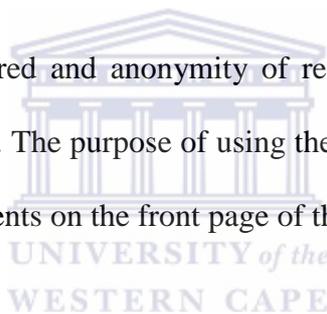
This research evaluates the implementation process of environmental education in a primary school situated in a working class area. The specific project to be evaluated is the Kirstenbosch Outreach Greening Programme (KOGP) which has been implemented at a primary school in Cape Flats. The outreach greening programme was initiated at Kirstenbosch in April 1997. Its purpose was to develop indigenous water-wise gardens at schools, to use the garden as a teaching and learning resource/tool to help incorporate Environmental Education (EE) into the core curriculum and to encourage ecological awareness, environmental responsibility and economic empowerment” (SANBI 2012). The KOGP employs what it terms “a systemic approach” in order to transfer the necessary and relevant skills to ‘Green Teams’ within the schools so that they can then successfully develop and sustain their own garden. In KOGP-initiated workshops with the ‘Green Teams’ basic horticultural skills including garden design, soil preparation, plant propagation and plant maintenance are taught to educators and support staff.

This research will explore answers to the following: To what extent and how have the goals/guidelines as stipulated in the KOGP been understood, applied and implemented by educators at the Stephen Road Primary School? What has been the kinds and levels of

support from school management for the project; what factors might increase the sustainability of the KOGP at Stephen Road Primary School? What, if any, are the unintended outcomes -- negative or positive – of the programme in the context of relatively under-resourced class schools

This study will be an in-depth case study based on direct observation, focus groups, semi-structured interviews and document analysis. Official documents of the KOGP, and the school, such as annual reports, will also be consulted for purposes of triangulation. The research is designed along the lines of a “formative” evaluation drawing on a qualitative evidence base and interpretivist methodology

Confidentiality of data gathered and anonymity of respondents will be ensured by not requiring any personal details. The purpose of using the data gathered for research will be communicated to the respondents on the front page of the survey instruments



Informed consent

Refer to the attached document titled: “**Participation Information Sheet**”

- This information is required for classification purposes only
- The name(s) of the individual and the school will not be published

Part One : Personal Information

Name of Educator (optional)	
Surname of Educator	
Gender of Educator	
Your professional status at the school	
<u>Your qualifications</u>	
Highest level of qualification	
Highest qualification obtained to teach Environmental education	

<u>Your teaching experience</u>	
Total number of years teaching experience	
Years of teaching Environmental education	
Name of the School	
Address of School	
Is your school a public or private school	
<u>General</u>	
Which grades are you teaching this year	
What is your average class size (how many learners)	
What is the medium of instruction at your school	
What is the home language of the majority of your learners	
How long did the KOGP run at the school?	

Part Two

- The section of the interview will provide the necessary background to the application and implementation of Environmental education (EE) at your school
- This section of the interview will also provide input about the different stakeholders at your school and the role they play in the implementation of EE at your school.
- Just Tick (✓) in the appropriate column

Part Two: Section A

Was Environmental Education part of your professional training	Yes	No
Have you received in-service training in relation to Environmental education	Yes	No
Are you attending annual refresher courses on Environmental Education	Yes	No
Briefly describe the socio-economic situation of learners at your school		
Do you know of any relevant socio-economic issues that could impact negatively at your school		
List a few initiatives run by your school to encourage Environmental Education		
What amount of teaching time was dedicated to these issues listed above		
How effective were these issues listed above		
Was your school management supportive of these issues	Yes	No
Was your school Governing Body supportive of these issues	Yes	No
Was your immediate community supportive of these issues	Yes	No
Does your school have an environmental policy	Yes	No
Is the implementation of the above policy effective	Yes	No

Is the WCED supportive of your Environmental Education run at your school	Yes	No
Does the WCED/ your circuit have support structures available to assist you with the running of the Environmental Education initiatives	Yes	No

Part Two: Section B

How do you as an educator understand the KOGP	
Has your understanding changed since your first contact with the KOGP programme?	
Can the KOGP, in your opinion, be sustained on a school level?	
How did you start the KOGP programme at your school ?	
What significance did participation in this programme had for your school?	
What significance did participation in this programme had for your community?	
Was there any committee established at your school for the purpose of organising this programme at local level?	Yes No
Who served on the above mentioned Committee?	
Did the school have a policy and strategy for the sustainability of the programme at school level	
What factors might have impacted on the sustainability of the KOGP at Stephen Road Primary School	

Part Two: Section C

What were some of the implementation constraints of the KOGP at your school	
What were some of the implementation difficulties/limitations of the KOGP at your school	
What are/were some of the implementation positive spin-offs (benefits) of the KOGP at your school in terms of holistic education	
How did you find a balance between your objectives set locally and the objectives set by the KOGP ?	
Were the KOGP linked to your curricular activities ?	
Did this programme add to your normal daily tasks as educators? Explain please	
Do you encounter lack of materials and human resources and support systems that could act as partners in supporting teaching EE implementation and the successful implementation of the KOGP project at your school	

Appendix C: SPARCIES Constitution: Doc 03

Preamble

Stephen Road Primary School

Recognises the importance of a healthy holistic environment – i.e. the social, economic and political environment underscored by the biophysical environment;

Honour those who strive to protect and conserve the environment;

Respect those who work to build, develop, sustain and promote environmental awareness;

Support those who enforce the laws to protect the environment;

Believe that a safe, secure, beautiful and natural environment belong to all;

Unite to raise environmental awareness in all the diverse peoples of South Africa through education;

Strive to inculcate the responsible and sustainable utilisation of the Earth and its resources;

Commit ourselves to implement environmental action projects to address and restore the damage inflicted on the holistic environment;

Dedicate ourselves to teach all the roleplayers to be involved in and to take actions which will allow us to live in harmony with the holistic environment

Commitment

Stephen Road Primary School commit ourselves to adhere to the South African Constitution, The South African's School's Act – all the laws, bylaws, clauses and amendments to the above, which guides the implementation of our environmental education programmes. We commit ourselves to strive at all times to offer teaching and learning for lifelong responsible and sustainable citizenry in harmony with the Earth and

its resources. We commit ourselves to offer environmental education in, about and for the environment, in both the indoor and outdoor classroom.

Vision

Our vision is to be a Community based school which contributes to the development of our Country, by providing Holistic education Which meets International standards of Excellence, quality, leadership and achievement

The Mission

As a community based school, we must ensure:

- **That our learner and educator compliment represent and reflect our community.**
- **That our school is characterised by mutual respect, inclusivity and tolerance.**
- **That we support and initiate community driven projects and that we forge closer ties with community based organisations, including schools.**
- **That where possible, our facilities are made available to our community.**
- **That the community is involved in all facets of the school to ensure the prosperity of the school.**
- **That the school creates awareness of community issues by initiating programmes for the development and upliftment of the community**

We are committed to a holistic education which:

- **Will encourage the intellectual, physical, cultural and moral development of the child and instill a sense of social responsibility.**
- Offers a curriculum with academic, technical, sporting, environmental and life skills components;
- Promotes a safe, healthy, hygienic and comfortable environment for all
- Provides for the all-round balanced development of all learners, staff members and other roleplayers involved with the school.
- Prepares our learners for life.

We will strive to meet international standards by:

- **Ensuring our learners are globally competitive**
- **Drawing on models of excellence in all spheres and adapting it to serve our South African context**
- **Forming partnerships to expose all roleplayers to the expertise of others**

As a centre of excellence, quality, leadership and achievement we are committed to:

- **Excellence and achievement in every aspect of school activity**
- **Learner, staff and community development**
- **Creating opportunities for all stakeholders to apply their leadership skills**
- **Fostering and nurturing an atmosphere conducive to teaching and learning**
- **Setting support systems in place which will boost the morale of all**
- **Providing recognition and support to all those who excel**
- **Guiding and developing all our learners to become lifelong learners and responsible citizens who can apply their knowledge and skills as accountable nation builders**

We believe that in order for our school to function as a centre of excellence and achievement there must be:

Mutual respect, support and co-operation between ALL stakeholders

- **A set of common values shared by ALL stakeholders**
- **Good understanding between ALL stakeholders**

Purpose

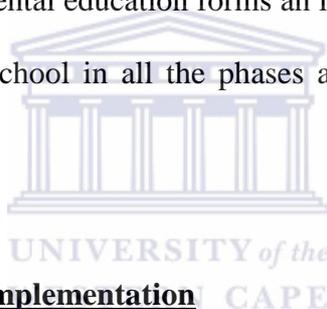
The purpose of the environmental policy is to establish the environmental vision of the school through the effective implementation of classroom and outdoor-based lesson plans and action projects to promote life-long sustainable environmental teaching and learning.

Principles

Stephen Road Primary School's approach to holistic environmental education is at all times informed by the Constitution of the Republic of South Africa, South Africa's School's Act and the National Curriculum Statement Principles of:

1) Social Justice, a Healthy Environment, Human Rights and Inclusivity
2) Outcomes-based Education
3) A High Level of Skills and Knowledge for All
4) Clarity and Accessibility
5) Progression and Integration

These stipulate that environmental education forms an integral component of the NCS and will be implemented at the school in all the phases as a Learning Outcome across the curriculum.



Environmental Education Implementation

Environmental Education as a Learning Outcome of the NCS will be taught across the curriculum as presented in the policy documents.

Environmental Education will be integrated across the NCS and be holistically promoted and presented.

A diverse variety of teaching and learning strategies will be used in both lesson plans and action projects to inculcate knowledge and skills to promote competencies pertaining to environmental education.

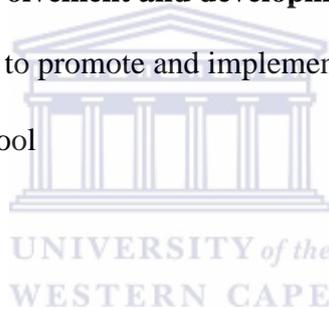
The school will register as an Eco-School with WESSA and use the themes presented by the Eco-School's programme, to address environmental education through lesson plans and action projects under the themes of:

1. Resource Use
2. Global and Local Issues
3. Nature and Biodiversity
4. Healthy Living
5. Community and Heritage

The school will submit a portfolio to WESSA annually to assess the whole-school's environmental education involvement and development presented as a portfolio.

The school will work actively to promote and implement environmental education as a

- Health Promoting School
- Safer School
- Eco-School
- Community School



The school will use teaching and learning opportunities to offer environmental education which is sustainable, holistic and responsible

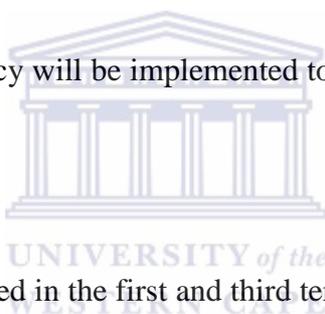
Partnerships will be actively pursued and formed to realise the school's environmental vision for all the roleplayers and the communities which we serve.

The school will run an environmental club for the learners to do action programmes as an extra-mural weekly programme to address holistic environmental issues and risks in our school and global context.

The various relevant committees of the school will plan, develop, implement and address environmental education programmes, issues and risks for the school and the communities which we serve.

One calendar day per term will be utilised to offer environmental programmes for whole-school development.

A watering and weeding policy will be implemented to use our resources in a sustainable and responsible manner.



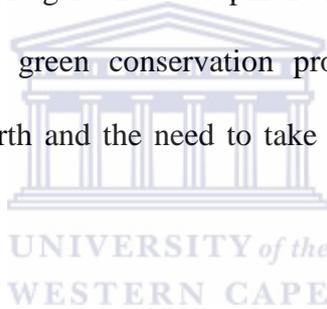
Annual audits will be conducted in the first and third terms to do a SWOT Analysis of our environmental issues and risks and under the five Eco-School Themes, to develop strategies, plans, programmes, lesson plans and action projects for sustainable and responsible environmental development and growth.

Whenever possible, the learners will be taken on excursions, interactive workshops and weekend camps to experience environmental teaching and learning in an environment which is funfilled, adventurous, educational and motivational in order to inspire the learners to take action for the environment

The school will recycle glass, paper and plastic and involve the learners actively in the programme to reuse, reduce and recycle

The school will promote the conservation of our indigenous fauna and flora by actively developing the schoolgrounds with indigenous flora and forming partnerships with organisations and people working in the field of preserving our natural indigenous heritage to equip our learners with the knowledge and skills to protect our indigenous natural heritage.

The learners and other roleplayers will be actively involved in water, energy and soil conservation, organic vegetable garden development for healthy living, conserving our Fynbos Kingdom and other green conservation projects to take ownership of our responsibility towards the Earth and the need to take responsibility for the preservation thereof.



SPARCIES CONSTITUTION: 2003

Name of the Ecological Society

- S - Students
- P - Promote
- A - Awareness
- R - Responsibility
- C - Care and
- I - Involvement in an
- E - Ecological
- S - Society

Motto

We care

We share

Together we grow

Slogan

Commitment, Leadership and Duty

Preamble

We, the members of SPARCIES

RECOGNISE the importance of the environment

HONOUR those who strive to protect and conserve the environment

RESPECT those who work to build, develop, sustain and promote environmental awareness

ENCOURAGE and get involved with those who work to restore the balance of the natural environment (Amendment 2007)

SUPPORT those who enforce the laws to protect the environment

BELIEVE that a safe, beautiful, healthy and natural environment belongs to all life forms

WORK actively to involve our learners, our community and other stakeholders in responsible and sustainable environmental development

UNITE to raise environmental awareness in all the diverse peoples of South Africa

A. Environment

1. Everyone has the right

- a. to an environment that is not harmful to their wealth or well-being, and
- b. to have the environment protected for the benefit of present and future generations, through the reasonable legislative and other measures that

Prevent pollution and ecological degradation

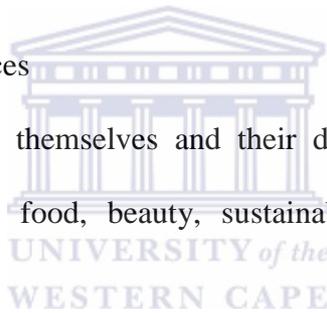
Promote conservation and

Secure ecologically sustainable development and the use of natural resources, while promoting economic and social development

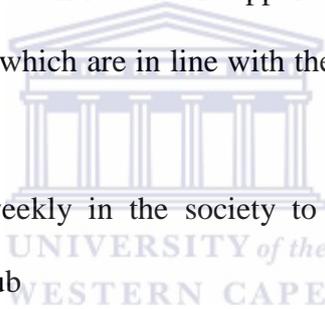
B. Water

1. Everyone has the right to have access to
 - a. natural heritage sites
 - b. water and food resources
 - c. the means to support themselves and their dependents through environmental projects which will provide food, beauty, sustainable and responsible growth and development
 - d. environmental projects which provide food and aesthetic stimulation
 - e. materials for job creation through environmental projects
2. We must take reasonable measures within our available resources to realise each of these rights of access to all
3. No one may be refused access and the right to enjoy a safe, clean and healthy environment

C. Participation



1. All learners in grades 4 to 7 will be allowed with their parents' or guardians' permission to be members of the ecological society at school
2. All members will be allowed to freely participate in all activities offered in the club
3. All reasonable precautions will be taken to ensure the safety of all members during all activities
4. All efforts will be made to expose learners to opportunities to share with others what they have learned and to expose learners to opportunities to liaise, interact and participate with other organisations, people or stakeholders to gain and share knowledge and experiences.
5. Learners will be afforded all reasonable opportunities to fulfil leadership roles and to implement their own ideas which are in line with the aims and vision of the ecological society.
6. Learners will meet weekly in the society to plan, design or to participate in programmes offered by the club
7. Club members will implement programmes at school to educate other learners on responsible and sustainable care of the environment
8. Club members will run practical programmes to promote
 - water conservation,
 - water-wise vegetable gardens,
 - HIV/AIDS and drug awareness,
 - indigenous vegetation (fynbos) knowledge and restoration,
 - biodiversity conservation,
 - natural habitat restoration,
 - composting and mulching



- Indigenous cultural knowledge
- Healthy wetlands
- Arts and crafts for job creation
- Awareness and celebration of environmental calendar days
- Indigenous plant propagation
- Weeding and watering strategies for the school grounds
- Recycling of glass and paper
- health promotion awareness and
- holistic environmental education

9. Club members will celebrate and promote a day or a week that raises environmental awareness such as Arbor Day/Week etc

10. Club members will promote responsible citizenship

Through developing worksheets, posters and other written texts to address issues and risks in their school and community contexts,

Implementing programmes and running workshops for fellow learners on their duty and/or responsibility to the environment

By developing people and communities through skills and knowledge sharing

Through job creation to alleviate poverty in their communities through responsible and sustainable development and partnerships with all stakeholders and role players.

AMENDMENTS TO THE SPARCIES CONSTITUTION DURING 2006

Participation

1. All learners in grade 7 will be allowed with the permission of their parents/guardians to be members of the ecological society at school.
2. All members will be allowed to participate freely in all activities offered by the club.
3. All reasonable precautions will be taken to ensure the safety of all members during all activities.
4. All efforts will be made to expose learners to opportunities to liaise and participate with other organisations, people or stakeholders to gain and share knowledge and experiences.
5. Learners will be afforded all reasonable opportunities to actively fulfil leadership roles and to implement their own ideas which are in line with the constitution, aims, vision, mission and goals of the ecological society.
6. Learners will meet weekly on a Thursday to actively participate in the programmes offered by the club.
7. Learners, Coordinators and parents will meet monthly to plan, discuss and evaluate programmes and activities offered by the club.
8. Club members will implement programmes at school to educate other learners on responsible care of the environment
9. Club members will develop, design and run programmes to promote
 - Water conservation
 - Water wise organic vegetable gardens
 - Designing, planting and maintaining indigenous gardens

- HIV/AIDS and health promotion awareness for healthy lifestyle choices and changes
- Clean-up campaigns
- Leadership and skills development programmes through participation in workshops, nature walks, hikes and games
- Recycling of paper and glass campaigns and competitions
- Implement and coordinate arts and crafts projects utilising recyclable materials to promote saleable and entrepreneurial skills development.

10. Club members will celebrate and promote calendar days and/or weeks that raise environmental awareness such as Arbor Day/Week etc

11. Club members will promote responsible citizenship

Through developing worksheets, posters and other written texts to address issues and risks in their school and community contexts,

Implementing programmes and running workshops for fellow learners on their duty and/or responsibility to the environment

By developing people and communities through skills and knowledge sharing

Through job creation to alleviate poverty in their communities through responsible and sustainable development and partnerships with all stakeholders and role players.

Through developing and sharing knowledge and skills for responsible and sustainable development in the communities where they live.

12 . The ecological society will focus on

- Water conservation
- Fynbos, water wise and indigenous gardening
- Recycling glass and paper

- HIV/AIDS awareness and health promotion
- Clean-up campaigns to keep our environment healthy and clean
- Leadership and skills development programmes
- Networking and participating in programmes run by other stakeholders to promote environmental awareness and care.
- Creating, running and maintaining the outdoor classroom philosophy by implementing and running programmes to promote the principles, goals and aims of the club at school, in the community and wherever and whenever the opportunities arise
- Learning and sharing skills which will create jobs or income generating opportunities
- People development, skills development, leadership development, responsible and sustainable utilisation of the Earth's resources and creating awareness of environmental issues and implementing strategies to address such issues
- Empowering learners and participants in club activities by allocating leadership roles to develop their strengths and talents
- Gardening, sporting activities, games and recreation, arts and crafts and lesson plans incorporating our vision, aims, mission and goals for our ecological society
- Conserving, implementing, researching, promoting and validating indigenous cultural knowledge practises
- Exposing our learners to our natural and cultural heritage and to actively promote the awareness, conservation, responsible and sustainable utilisation, respect, care and appreciation of such heritage
- Caring for our most important resource which is our children through programmes which will nurture, develop and realise their hopes and dreams for a better life

- Educating our learners holistically to be the responsible and visionary caregivers, conservationists and custodians of the Earth and its resources

Creating, shaping, moulding, training and guiding the learners to be responsible, aware and caring citizens in the global village

Programmes to make our learners environmentally aware and literate

Encouraging our learners to grow up and enjoy a decent quality of life

Encouraging our learners to become independent, self-reliant and visionary, yet caring, sharing and action taking citizens in their communities and in the country as nation-builders

Giving our learners an opportunity to care for and take ownership of the environment



Appendix D: Letter from WESSA Eco-Schools: Doc 04



November 2012

Dear Stephen Road Primary

I would like to start by congratulating you on the excellent portfolio you submitted. Even with your funding pulled you have been able to submit work of outstanding quality. Thank you for submitting a portfolio for 2012. Congratulations your school has maintained your Platinum status. Keep up the great work!

Your portfolio effectively shows an enthusiastic commitment to positive environmental change. There is clearly a deliberate effort towards changing minds, hearts and habits towards more sustainable lifestyles.

Eco-committee: It is great to see so many people are involved in your Eco-committee. This truly reflects what Eco-Schools would like to see and that is that the whole school and community takes ownership of the environment in and around the school.

Audits: A great effort has been made to complete the audits in a thorough manner, it is clear that this kind of review can help your school, to identify areas for improvement. Your thorough ways in which you review every sector of the Programme shows incredible commitment to continuous improvement.

Eco-code: Your Eco-code is thorough and gives clear guidance to the school with regards to a code of conduct when it comes to environmental issues.

Themes: All themes are covered well and even expanded on. Thank you for the thorough feedback on previous activities and themes covered in the years before 2012.

We could look next year into how to condense your portfolio so that you don't need to submit the extensive amount of proof every year as I am sure this has become cumbersome for you as well. Please see your assessment for more information and recommendations.

Thank you for participating so actively in the Eco-Schools Programme in 2012, despite many challenges. We are all very proud of Stephen Road's commitment towards the Programme and are confident that you will continue to implement and develop again next year.

We highly recommend that you chose the option of helping another school in being successful on the Eco-Schools Programme as your wealth of knowledge of the requirements will greatly help another school. As the Programme Manager I would be very happy to assist you with this endeavor and would like to continue learning from you as well! You really are an example to other schools of how well the Programme can be implemented even when there are challenges and limited resources and we truly commend you for this.

You will need to register again before the end of March 2013 and submit a portfolio at the end of October 2013, which reflects your ongoing Eco-School work and commitment to our environment. Please keep a copy of this letter and the assessment form in your portfolio for 2013. **Keep up the fantastic work!**

Yours sincerely,

**Helena Atkinson and The Western Cape Eco-Schools Assessment Team
WESSA Eco-Schools Programme**

Appendix E: Agreement between Kirstenbosch (KOGP) and Stephen Road Primary

School: Doc 05



Private Bag X7
Claremont
7735
17 December 2005

Dear Mr. E. O. Baker

Re-acceptance to Kirstenbosch Outreach Greening Programme

It is with great pleasure to inform you that your school has been accepted to the Kirstenbosch Outreach Greening Programme. Your school will be part of a number of schools that are dedicated in environmental development. For your project to function successfully within the Outreach Greening Programme, you are required to have an environmental club of at least 4-15 learners, 2 dedicated teachers, 1 grounds man and possibly, community members.

To participate actively on the programme, your school environmental club should attend six horticultural skills workshops on the following proposed dates:

- 01 February 2006
- 06 March 2006
- 29 March 2006
- 19 April 2006
- 07 June 2006
- 06 September 2006

The dates for the workshops will be confirmed in the first workshops in February 2006. Should you have any queries, please contact me on 083 290 5397 or 799 8670.

We are looking forward to a fruitful working relationship.

Yours sincerely

Nondumiso Boyana
Outreach horticulturist