



Mainstreaming Education for Sustainable Development (ESD) in the School Curriculum: concerns & experiences from Swaziland

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Introduction

The National Curriculum Centre (NCC) is an organ of the Ministry of Education responsible for the development of the school curriculum. The principal function of curriculum development is to interpret the national goals as presented in policy documents and as policy statements from the throne, to produce educational programmes and instructional materials.

The Swaziland Government periodically produces these policy documents that state national goals to direct development in the country. The most recent are the National Development Strategies (NDS), and the Poverty Reduction Strategy and Action Plan (PRSAP) and international instruments such as Millennium Development Goals (MDGs) and Education for All (EFA) goals have all placed a high priority on education and skills development.

Background information

Swaziland has the smallest population in the sub-region. About 21 per cent of the population now live in the cities. Most people live in rural areas with a population growth rate at about 2.8 per cent. About 54 per cent of the population is aged below 18. This has obvious implications for the budgetary allocation for education in general and programmes for youth in particular.

The economy is dependent on the agricultural sector with sugar and citrus being the main contributors. Despite Swaziland being an agricultural country, studies have indicated that 40 per cent of the rural population are not able to produce enough to meet their needs. Although Swaziland has been classified as a lower middle-income less-developed country because of its high GDP per capita (US\$4998 in 2009), this status disguises the country's severe inequality – with around 63 per cent of Swazis living on less than US\$1.25 a day (United Nations Development Programme, 2011). In the period 1992-2005, the poorest 20 per cent of the population had a 4 per cent share of the country's wealth as opposed to the richest 20 per cent who enjoyed around 56 per cent of the wealth (United Nations Development Programme, 2007).

Unemployment is high and was estimated in 2008 at 28 percent of the labour force (Ministry of Economic Planning and Development, 2009). Youth unemployment is even higher with 52.3 percent of people aged 15-24 jobless according to the 2007/2008 Swaziland Integrated Labour Force survey (Ministry of Labour and Social Security, 2011).

Another concern is the HIV and AIDS situation. The epidemic, which affects mostly the younger and economically-active population, poses serious problems. This situation has implications for the development of the country, including the rising number of orphans and vulnerable children.

Of note is that the Swaziland education system is still struggling with problems of the post-independence era that have remained persistent in issues of access, progression of students in the school system with increasing failure and dropout rates, lack of qualified teacher's still not drastically decreasing, lack of curriculum diversity to accommodate increased professional and technological specialisation, and slow response to education and training changes in both regional and international arenas, thus frustrating development and innovativeness of the education system in the country. A recent picture of the access rates in Swaziland reflect that about 16 percent of children of primary school-going age are not enrolled in primary education, an alarming 74 percent and 88 percent, of the appropriate age for junior and senior secondary education respectively, are not enrolled in these levels of education. This reflects an even worse situation for access levels for Technical and Vocational Education and Training and Skills Development (TVETSD) and University Education, since secondary education is the only pathway through which our children can transcend to higher or college levels of education. The pyramid pattern of enrolments, as one transcends from primary to secondary and eventually higher education levels, continues to be one of the most damning challenges facing the sector and the country at large. Marope (2010, p. 131) details the sheer inadequacy of access for young people in particular:

Access is limited at all levels of the sector and is most severely so for Early Childhood Care and Development, secondary education, Technical and Vocational Education, Training and Skills Development and Higher Education. Only 35 per cent of children of eligible ECCD age are enrolled in centres. Even then, most of these centres offer partial aspects of what ought to be a full ECCD program. Sixteen per cent of children of primary school age are not enrolled in primary education. A staggering 74 per cent and 88 per cent of children of eligible age are not enrolled in junior secondary and senior secondary schools respectively. ...the non-formal sector enrolls a limited numbers of children who are out of formal schools. In 2007, an estimated 480 were enrolled in Non-formal Upper Primary Education. In 2008, about 320 and 380 were enrolled in junior secondary and senior secondary non-formal programmes respectively. About 7 per cent of school leavers gain access to TVETSD. A range of platforms offer TVETSD to youth and adults but these are without standards and are unregulated. In 2006, about 560 were in non-formal TVETSD. An additional 600 to 800 were involved in some form of informal training and presented themselves for RPL through trade tests. Enterprises trained 27 per cent of their unskilled workers. About 2501 trainees were enrolled in unregulated private training institutions mostly focusing on commercial training.

Completion rates

Swaziland is still far from universal completion of IO-year basic education. Currently, an adult Swazi attains 7.5 years of schooling on average. For school-age children, although there is nearly universal access to grade one, the grade survival rate is very low. The primary school completion rate in Swaziland is just over 60 per cent. Completion rates are compromised by the number of repeaters and drop outs. In 2010 new entrants in Form 1 were 21,312 suggesting that there were 2,400 repeaters.

This is the scenario where some of us teach and make curriculum decisions that affect people's well-being and the future of Swazis on this planet.

1. What has been done with regard to ESD in your country?

The government of Swaziland committed itself to

- promoting environmental education as it embraced in **chapter 36 of Agenda 21, of the Rio de Janeiro Earth Summit.**
- the establishment of the **Swaziland Environment Authority (SEA)** through the SEA Act of 1992.
- Developed the **Swaziland Environment Action Plan (SEAP)** as government's programme of action in environmental management.
- That SEAP directed the formulation of the **National EE Strategy in 2000** which currently guides the undertaking of EE activities in the country. The 2000 National EE Strategy identified four programme areas to be pursued in the implementation of EE in the country namely:
 - ✓ Schools and Colleges programme;
 - ✓ Community programme;
 - ✓ Public Awareness, Research, Information and Technical Messages programme;
 - ✓ Environmental Education and Resource Centres programme.

These were relevant and important programmes in carrying forward the EE agenda in the country. **But the review of the 2000 National EE Strategy** revealed a very low level of implementation of the Strategy by almost all the identified and designated stakeholders.

- the EEPAP committee made some significant contribution to raising environmental awareness in the country. **Key contributions of EEPAP** are in
 - ✓ the commemoration of global environment events such as World Environment Day and others. Moreover,
 - ✓ EEPAP has successfully hosted two conferences under the auspices of the Environmental Education Association of Southern Africa (EEASA) in the years 2000 and 2008.

Educational Policy framework

The Ministry of Education & Training, in association with the World Bank, produced a detailed analysis of Swaziland's education sector, entitled *The Education System in Swaziland: Training and Skills Development for Shared Growth and Competitiveness* (in this document further referred as *2009 Report*). This defining document provided an important underpinning for the draft Education Sector (EDSEC) Policy of 2010, because it contained a set of recommendations for future EDSEC development which had already been considered and adopted by Cabinet (April 2010). This parallel development ensured considerable synergy between these recommendations and the thrust of this EDSEC Policy. In addition, the development of an *Education Sector Strategic Plan* (ESSP, April 2010) provided a detailed planning, costing and implementation framework, based on the adoption of the *2009 Report*, and served to confirm the commonality of the developing EDSEC agenda. Both the *2009 Report* and the *ESSP* served as key inputs to this Policy development process and acknowledgment is due to the MoET and World Bank team responsible. *The Technical and Vocational Education and Training (TVET) Policy*(2010) and the Legal framework to implement it are now in place.

These intentions imply the need for major changes to the design, management, monitoring and reporting of education and training delivery.

The Swaziland Education and Training Sector Policy (Ministry of Education and Training, 2011) has a section (pp. 25 - 26) on Education for Sustainable Development, which notes that currently:

For sustainable development to be achieved in Swaziland, the education system needs to reflect a view of the world as a holistic socio-cultural, economic and ecological system, characterised by constant change. Thus ESD is an essential link in the poverty reduction, health, and environment protection chain

The primary goal of ESD is to develop norms, values, change-practices and lifestyles to ensure sustainable living. Emphasis is placed on the development of so-called higher thinking skills and personal, social, and environmental competencies which should be mainstreamed in every function of the education and training system as well as the routine functions of the MoET.

The following are policy objectives for ESD

ESD Policy Objectives

In the Short-Term, to:

- Improve policy harmonization and commitment to the implementation of education for sustainable development at the regional and national level.
- Strengthen existing international, regional and national enabling mechanisms and cooperation for ESD that respect cultural diversity.

In the Medium- to Long-Term, to:

- Establish regional and country-level ESD committees and networks that strengthen local-national and national-global links and practice, and enhance North-South and South-South co-operation.
- Broaden public awareness of the principles and practice of sustainable development, both at individual and group levels.
- Promote an education system which enhances African culture and contributes to sustainable socio-economic development.
- Strengthen the quality of education within the framework of sustainable development.
- Mobilize resources and funding for ESD through its integration into national development policy and budgetary frameworks.
- Consolidate and diversify partnerships with a focus on education for sustainable development.
- Re-orient the education and training system to address sustainability concerns through coherent policies at national and local levels.
- Ensure capacity at all levels for disaster risk reduction and emergency preparedness and response. (EDSEC Policy, 2011)

ESD in the School Curriculum

Education for Sustainable Development, (ESD) refers to a life-long learning process that leads to an informed and involved citizenry having the creative problem-solving skills, scientific and social

literacy, and commitment to engage in responsible individual and cooperative actions that will help ensure an environmentally sound and prosperous future. All subjects taught in the school curricula at both primary and secondary school levels in Swaziland refer to environment and sustainability issues, albeit at different levels.

The following are some of the qualities of ESD:

- Every person should benefit from an education promoting development that is environmentally sound, socially equitable, culturally sensitive and economically just.
- Learning should be about knowledge and also about doing, being, interacting with others and changing the world.
- Learning should be enjoyable, hands-on and relevant to life outside school while addressing the problems of our world.
- Every person should benefit from genuine learning opportunities throughout life, in the workplace, and within the community.
- Education systems should prepare learners to enter the workforce as well as handle a crisis, be resilient, become responsible citizens, adapt to change, recognize and solve local problems with global roots, meet other cultures with respect, and create a peaceful and sustainable society.
- Learning should be about knowledge, values and skills acquisition.

Implications to Curriculum development in Swaziland

The National Curriculum Centre has developed a process it uses for incorporating Emerging Issues into the existing curriculum. This has been used for some ESD issues recently. This involves:

- a) Hosting a *workshop* to capacitate curriculum developers on the issue facilitated by experts. This enables the curriculum designers to deliberate on the issues long enough to generate their core strands and identify areas of concern.
- b) Conducting a *Curriculum Audit* of all the subjects in the national curriculum to gauge their coverage of the content on the issue. We usually get findings that identify as the three levels of mainstreaming, namely;
 - the *simple level*, where environment and sustainability issues are mentioned or cited in the course of the lesson. This may include making reference to trees, rivers, water, climate, *etc.* This is the easiest level, with minimal impact on ESD goals or objectives.
 - the, *intermediary* level, which is slightly challenging and needs a slightly higher degree of understanding environment and sustainability issues. At this level environment and sustainability issues are used as examples to explain phenomena. Learners' activities such as practicals and assignments are also structured in such a way that the learners exhibit their knowledge and understanding of environment and sustainability issues. Some examples include giving an essay topic in which learners are expected to write a composition on water or rivers.
 - the *advanced* level, which requires a very strong understanding and appreciation of environment and sustainability issues. For example learners in the upper grades (Forms 4 and 5) may be required to do a project on the impact of keeping too many cattle on a small piece of land. It is at this level where the curriculum yields better results. Some examples are

Developing Studies
Geography
Agriculture } e.g. of advanced level of **content**

Prevoc Studies *as an example of a high level of adherence to Rewarding processes/principles; Responsive, Flexible, Participatory, balanced theory and action, contemporary assessment strategies*

Schools as Centres of Care and Support *an example of highly integrated Programmes in the country addressing ESD*

- c) *analysing the audit results* to identify strengths and gaps in the curriculum
- d) working with the subject specialists, to *develop a matrix* that maps out the scope and depth of content for that issue. The matrix also specifies the grade level appropriate for that content statement as well as the subject area best suited for incorporating it.

Issues that have been incorporated through this process since 2009 are;

- ✓ anti corruption
- ✓ disaster and risk management
- ✓ lifeskills and HIV-AIDS
- ✓ Sexuality education
- ✓ Baphalali – Red Cross
- ✓ Non-communicable diseases
- ✓ Chemical waste disposal

We also find that environment and sustainability issues are multi-disciplinary even though some topics can be readily used constructively to address environment and sustainability and equally some subjects do more readily accommodate these issues. Deliberations with subject panels and the Curriculum Coordinating Committee always have to be undertaken to clarify the question of how best these issues may be incorporated into the existing curriculum. The following approaches have been used wherever appropriate;

- ✓ **Infusion** – which involves incorporating strands from these issues into existing curriculum subjects/programmes *refers to the addition of subject material to already existing material*
The most recent experience for the National Curriculum Centre is the development and implementation of the **Human Rights and Democracy programme** where the materials were developed towards certain themes which were then taught in specific subjects encouraging peer tutoring as well.
- ✓ **Integrated approach** – which involves cross-curricular strategies e.g use of themes, as well as project work and local investigations, where knowledge and skills from various subjects is used to address the same issue. E.g Environmental Education
- ✓ **Re-orientation.** The Education and Training Sector Policy (2011) has directed the National Curriculum Centre to reform the school curriculum from 2011-2015. Because of the growing number of issues to be addressed by the curriculum, including ESD, it has been resolved that re-orientation of the curriculum will be the best approach for this reform. **This has resulted in redefining of the pillars of the school curriculum as**
 - ❖ Education for Sustainable Development
 - ❖ Inclusive education
 - ❖ Competency-based

Some of the planned activities for ESD during the Curriculum Reform period (2011-2015)

The National Curriculum Centre intends to;

- a) Interpret and translate the statement on ESD in EDSEC Policy(2011), National ESD Strategy(2012), Compendium of Environmental Laws for Swaziland (2005) and related

- policies to capture implications for the school curriculum; its development, implementation, monitoring and evaluation
- b) create a forum (Symposium or Conference) for relevant stakeholders on a dialogue on ESD
 - c) conduct a situational analysis and needs assessment on ESD knowledge and activities in the country
 - d) redefine curriculum guidelines and statements (review outcomes)
 - e) Create partnerships (Public- Private sector) locally and regionally to enhance the development of the ESD curriculum
 - f) Advocate for ESD with the decision makers in the Ministry of Education and Training
 - g) conduct a curriculum audit on programmes under the responsibility of NCC and those outside the responsibility of NCC
 - h) engage the Examinations Council of Swaziland on deliberations on the reviewing of their assessment procedures (framework, strategies) to be more closely align to the dictates of ESD
 - i) develop ESD oriented instructional materials

OTHER ESD ACTIVITIES IN THE COUNTRY

- 2. In which aspect of the above –selected themes are there more activities in your country? Give reasons for this choice.**

Porverty alleviation.

- *through sensitisation activities using diverse media,*
- *certain standards set for homesteads to improve their livelihood e.g gardens*
- *regulations to set up an SME have been eased*
- *Funds established by government and parastatals e.g.*
 - * *Inhlanyelo Find for agricultural projects*
 - * *Youth fund from the Ministry of Sports, Culture & Youth Affairs*
 - * *the regional Development fund in the Constituencies for cooperatives*
 - * *SIPA which assists investors*
 - * *FINCORP a finance management unit*
- *the Ministry of Education has integrated messages and issues aound porverty alleviation in the curriculum*
- *MOET is preparing Entreprenuership programme for Secondary level*
- *MOET offering Prevocational Studies, at Senior Secondary, whose objectives are to promote employability, self- employment and further training.*

- 3. At what level of education in your country is there more focus on ESD**

Secondary school level – in depth dielivery of school content on ESD

Tertiary level – carrer pathways and opportunities e.g degrees offered in Environmental health Sciences, Environmental Management,

- MESA mainstreaming Environmental education at tertiary
- MESA Chairperson in local university

- 4. Are you approaching ESD from a formal, non-formal or informal education perspective ?what are the related activities currently bieng implemented that you can document?**

Formal – efforts to mainstream ESD in national curriculum as dictated by the National education policy

Non- formal – Swaziland Environmental Justice Agenda(SEJA) conducting certificate course for participants from all walks of life. Only requirement is that they apply what was learnt in their workplaces.

- *SHEQ Forum (Safety, Health, Environment and Quality)*

The SHEQ Forum is a young organization that has been vocal and aggressive in addressing issues of safety, health, environment and quality in workplaces

5. Who are the most active stakeholders ? NGOs or Gos ?

GOs as Ministries or parastatals. E.g..

- The Ministry of Education and Training
- Ministry of Natural Resources and Energy
 - ✓ The department of Water Affairs
 - ✓ The department of Meteorological Services
 - ✓
- *Ministry of Agriculture*
 - ✓ The Land Use Planning Section (LUPS) is the focal point for the implementation of the Convention to Combat Desertification (CCD).
 - ✓ The Forestry department has concluded formulation of the national forest policy
 - ✓ Extension department engages agricultural extension officers to teach and advise farmers on proper and environmentally friendly methods of farming
 - ✓ Animal health inspectorate assists farmers in raising livestock in a manner that does not threaten the existence of the rangelands.
- *Ministry of Health*
 - ✓ Department of Public Health is responsible for teaching the general public about environmental health
 - ✓ Health Inspectorate engages services of health inspectors who are stationed in the communities to ensure that people live under ideal sanitary conditions characterised by proper disposal of refuse, use of toilet facilities and access to clean water supply
 - ✓
- *Ministry of Labour and Social Welfare*

The department of labour conducts random health, safety and environment inspections in the employment areas. In collaboration with the workers unions, the department conduct training workshops for industrial personnel on basic health and safety standards.
- *Ministry of Home Affairs*
 - ✓ The gender unit in the ministry has to capture the variety of environmental issues which places gender relations at the centre
 - ✓ National cultural events such as cutting of the reed (*umhlanga*) and sacred shrub (*lusekwane*). The Swazi youth come into contact and exploit natural resources annually of significance to Swazi culture and environment. Protection of *umhlanga* and *lusekwane* must be inherent in the ceremonies and education about these environmental resources is critical for sustainability of the Swazi culture and the resources. Sustainability of *umhlanga* and *lusekwane* must be education not mere conservation or preservation of the plants.
- *Ministry of Economic Planning and Development*
- *Ministry of Housing and Urban Development*
 - ✓ Directorate of Housing and Human Settlements (DHHS) has impressed on property developers the importance of compliance with environmental dictates when applying for property development. The Human Settlements Authority (HSA) requires an

environmental compliance before approving any development on urban land for human settlement purposes.

- ✓ Directorate of Urban Government (DUG) requires local authorities to seek for environmental compliance in the development of physical structures with the urban areas.

- **Local governments**

The Urban Government Act requires local governments to be custodians of the environment, through their Town Planning Schemes that ensure the protection of the environment. Empowered by the Waste Management Regulations 2000 and National Solid Waste Strategy (NSWS), local authorities have put in place mechanisms of involving the public in waste management. Other activities undertaken by local authorities include the following:

- ✓ Celebration of important environmental days including the world environment day.
- ✓ Incorporation of environment and sustainable development into strategic plans.
- ✓ Production of state of environment reports.
- ✓ Disposal of waste on daily basis.
- ✓ Holding of annual competition for the cleanest community within the local areas.
- ✓ Establishment of house waste information centres

Parastatals

- *Swaziland Water Services Corporation (SWSC)*
- *Swaziland Environment Authority (SEA)*
- *Swaziland Electricity Company (SEC)*
- *Swaziland National Trust Commission (SNTC)*
- *Swaziland Water Development Enterprises (SWADE)*
- *Swaziland Standards Authority (SWASA)*

SWASA is the National Quality and Standards authority. The core business of SWASA is to develop and publish standards for guiding socio-economic development in the country. Among the standards developed are those pertaining to the environment and processing of goods and services. SWASA educates and sensitizes the nation about new standards that have been released and in doing so contributes significantly in educating the nation on issues pertaining to sustainable development.

6. Can you detail the strategies employed by the actors involved in ESD ?

- i. Operationalise Section 6.7 of the National Education Policy (2011)
- ii. Existence of a National Education Curriculum Reflecting Environment and Sustainable Development
- iii. Ensure availability of ESD Integrated Learning Materials
- iv. Strong and vibrant ESD networks
- v. Existence of an aware and knowledgeable Swazi population
- vi. Establishment of the ESD Coordinating Committee (ESD-CC)
- vii. Strengthening of the Regional Centre of Expertise
- viii. Strengthened research in ESD innovations

7. Is there ESD related research in your country ?if yes ,what type of research, in what specific area and what are your plans based on research outcomes?

The research climate on ESD is quite warm.

Hosted 2 Research Conferences on ESD (2000 and 2008)

8. Do you engage the private sector and industry in ESD research and development matters?

- ✓ Partnerships in development of some subjects
- ✓ Attachments for students

✓ Involvement in design of educational programmes

9. Can you share your experience related to what works and what does not?

Infusing ESD into school curriculum while Teacher Training lags behind. Experiences in Development Studies and Prevocational Studies

10. What are the challenges that you face ?

- ▶ Capacity of curriculum developers
- ▶ Limitation of the Examinations Council of Swaziland (ECOS) in exploring contemporary examination procedures and assessment techniques
- ▶ Nationally, the absence of a National ESD coordinating body.

11. How do you adjust your practice?

In curriculum development, we source expertise from elsewhere

12. In which aspect do you think you will require most support?

Ministry of Education & Training- there is need for capacity building
Nationally – the establishment of a National ESD coordinating body