



Teachers' Voices on School Toilet Sanitation

Daniel Kasuleⁱ

University of Botswana, Faculty of Education
P/Bag 00702; Tel +2673552202
kasuled@mopipi.ub.bw

Nthalivi Siloⁱⁱ

University of Botswana, Faculty of Education
P/Bag 00702; Tel +2673552993
SILON@mopipi.ub.bw

Grace Tshegofatso Seetsoⁱⁱⁱ

University of Botswana, Faculty of Education
P/Bag 00702; Tel +2673554792
Grace.Seetso@mopipi.ub.bw

Abstract

This study uses the concept of a health-promoting school to investigate teachers' voices on the state of school toilets. Using an open-ended questionnaire administered to 43 in-service teachers, the study's specific objective was to determine teachers' assessment of the state of school toilets. Responses were qualitatively analysed. It was found that there were serious inadequacies in toilet facilities and resources. Findings also indicated that inadequate arrangements for monitoring and maintaining toilets are a major administrative problem in all these schools. Local councils were reported to be failing to provide maintenance and supplies that would assure children's hygiene, safety and privacy. Curiously, while inadequacies are quite a major concern across all schools in the sample, staff toilets are not affected. Noting that on their own learners are powerless to change the poor state of school toilets recounted by these teachers, we present six recommendations that involve the entire school community.

Keywords: School toilets, Age appropriateness, Gender-specific, Privacy, Human dignity.

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INTRODUCTION

Over the past 30 years the World Health Organization (WHO) has strongly promoted the concept of a health-promoting school (WHO, 2011). Such a school attempts to constantly develop its capacity for healthy learning, working and living by providing a safe learning and working environment for students (WHO, 1998; Simovska, 2012). Similar commitments were made by participants at the World Education Forum held in Dakar, Senegal, where it was stressed, among other commitments, that learning environments should be healthy, safe and protective (UNESCO, 2001). The concept of a health-promoting school is a broad framework of guidelines on school's health policies, physical environment, the social environment and stakeholder relationships (St. Leger, 1999).

According to Simovska (2012), the concept has been interpreted differently in different cultural, geographical and educational contexts, so the European Network of Health Promoting Schools spearheads this concept across European schools. In sub-Saharan Africa, however, such a framework is still lacking and little is known about what individual countries are doing regarding a health-promoting school. However, in Botswana, topics on sanitation and health are clearly articulated in the Science and Environmental Science syllabi in addition to a participatory approach that gives 'special attention in planning and implementing environmental education activities and initiatives with a direct, perceived benefit to the learners' (Botswana Government, 2007, p. 9). Thus sanitation health is part of a broad environmental education strategy for developing a citizenry that will take full responsibility for the environment. Because teachers are key change agents in school health programmes (Jordanova, Cronk, Obando, Medina, Kinoshita & Bartram, 2015), this paper focuses exclusively on teachers' voices on the health, safety and privacy of school toilets as vital components of environmental health in schools.

CONTEXTUAL BACKGROUND

Not so long ago, school toilets tended to be a neglected area of study in Botswana (Silo, 2011, 2013). Indeed during the 1990's for example, numerous studies on school learning in Botswana (Tabulawa, 1997; Prophet, 1995; Marope & Amey, 1995; Prophet & Rowell, 1993) focused exclusively on classroom matters; thus what often dominated discussion were fluctuations in pass rates and their causes: the increased teacher-pupil ratio arising from increased demand for school places; the increase in teachers' workload thereof; the inadequacy of teaching resources specifically textbooks, classroom space, and furniture; classroom gender imbalances, and so on. While these studies provide valuable findings regarding the litany of barriers to school learning, they did not include school toilets and their impact on learning and teaching, especially, on how teachers in primary schools were coping with caring for one of the most vulnerable sub-populations in environmental health.

The reason for this state of affairs must be the fact that because discussion has always come from people outside the school looking in, the classroom provided an easier entry point of investigation for these researchers. However, this is changing and school environmental health is becoming an area of ever-growing interest. Earlier studies in Botswana on the state of learning environments (Tikologo, 2004; Kgathi & Bolaane, 2001; Ketlogetswe & Mothudi, 2005; Ketlhoilwe, 2007; Cantrell & Nganunu, 1992) indicated that while concern by teachers was limited exclusively to litter management; two studies (Ketlhoilwe, 2007; and Silo, 2011, 2013) reported learners want sanitation management in the school toilets to be a primary concern. More

recently, a project by Ngwenya (n.d) urged the linking of the promotion of good hygiene practices by schools with the technology of dry-sanitation or waterless toilets. According to Kayawe (2015), waterless toilets require no water and chemicals, but makes use of radiant heat and wind to evaporate and dehydrate waste matter, turning it into a safe, stabilised and odourless dry material that is greatly suitable for use as manure. There is need to increase the teachers' involvement in school toilet management. This study investigates the voices of such teachers about the state of the toilets in their schools.

SCHOOL TOILET SANITATION RESEARCH

As a distinct field of investigation, *toilet sanitation research* in primary schools is underpinned by child development discourse. According to Slater, Jones and Procter (2017), this is because child development is a key concern at this level of education. Therefore school toilet issues are discussed as part of toilet training that teaches lessons of what learners should perceive as adequate and acceptable and what is not and how school toilets affects learning. From this perspective, teachers play an important role as adults who shape learners' school experiences. Unfortunately, according to Birdsall, Levine and Ibrahim (2005), primary school learners from five to fourteen years (5-14) are at great risk of worm infections arising from inadequacies in school toilets. And so, as primary schools in Botswana adjust to accommodate pre-school learners, the health and wellness concerns with school toilets are urgent.

One line of school toilet research called *growing up and sexual maturation* (GUSM) has shown how school toilets impact school attendance among girls. For instance, using interviews, a GUSM study found that irregular primary school attendance among girls was connected with their menstrual cycles (Kasente, 2006) because victims stayed away from school whenever the cycle started, partly because the rest of the school will jeer, but more relevantly for this study, because schools were unprepared for this eventuality by way of toilets that guaranteed maximum privacy for users let alone sanitary towels. The girls in the study reported that rather than suffer the indignity, they miss school for several days every month by hiding somewhere between home and school. Irregular school attendance has severe consequences for both the individual (dropout or failure) and the education system (wastage).

Targeting learners as participants, much research locally and globally (Ketlhoilwe, 2007; Silo, 2011, 2013; Shaibu & Phaladze, 2010; Barnes & Maddocks, 2002; Garn, Caruso, Drews-Botsch, Kramer, Brumback, Rheingans, & Freeman, 2014; Vernon, Lundblad, & Hellstrom, 2003) indicates school toilets are inadequate in terms of quantity (the number of toilets available) and quality (in cleanliness, in resources such as soap and toilet paper, in assuring the users' privacy and specific needs). Naturally, learners' concerns with school toilets are centred on access and general cleanliness. Barnes & Maddocks (2002) for example reported complaints from different students that included:

I can only get toilet roll from the teacher when I want to go for a pool / I'm not allowed to go in lesson time – only break-times / there's wee all over the floor / the locks have been kicked off the doors' and 'they stink and are dirty (p.86)

The result were negative perceptions about school toilets which Lundblad and Hellstrom (2005) found prevalent in learners aged 13-16 adding that such negative perceptions hindered their using toilets while at school.

In this study we decided to target teachers instead so as to provide a fuller understanding of the inadequacies of school toilets. This is because on their own, learners are powerless to change the inadequacies in their school toilets and as Simovska (2012) correctly argues, ‘health promotion in schools needs to be closely linked with the core task of the school – education and to the values inherent to education’ (p.86). This requires active participation by teachers. Especially in primary schools, teachers represent the first point of call as adults in assuring the health and wellness of school children who happen to be the most vulnerable population of the community. Secondly, school takes up a large part of children’s wakeful hours which on average is approximately between 8 and 10 hours per day. Thus the provision of a good education revolves around the establishment of a learner-friendly environment that includes school toilets.

One important criterion for assessing adequacy is school population. Given the ever-increasing school populations, the study recognizes the need for documenting what teachers say regarding the adequacy of sanitation conditions in their schools so as to identify ways to implement sustainable long lasting strategies. Without a corresponding expansion of existing facilities, learners’ health and wellness can be adversely affected when school toilets are overstretched and disallow free access. A rise in number of users without a corresponding expansion of toilets carries with it real threats to the health and wellness of users (Vernon, et. al, 2003). The specific study objectives therefore are to document teachers’ assessment of the adequacy and management of school toilets, and to hear their suggestions for improvement.

METHODOLOGY

This is a questionnaire survey. A simple questionnaire was designed to collect the opinions on school toilets of forty three (43) in-service primary school teachers who happened to be taking the full-time Bachelor of Education (B. Ed) degree program at the University of Botswana. The questionnaire sought responses on school location by district; school population; number of toilets by type (pit latrine or flush toilets) and by gender; and the arrangements for maintaining hygienic levels. Thereafter, one open ended question asked respondents to state a key issue (not necessarily a problem) associated with toilets in their school. Earlier studies (Silo, 2011; Barnes & Maddock, 2002) targeted students and showed that students can make strong and reliable assessments of the state of waste management in their school and that by engaging them in dialogue and through genuine participation (Simovska, 2008; Jensen, 2004), they can become co-catalysts for change and consequently, a broader range of possibilities become available in addressing the sanitation challenges they face in schools. However, by collecting the opinions of in-service primary school teachers instead, we hope in this study to provide a composite picture of the state of school toilets.

The participants were all in-service teachers from primary schools in Botswana enrolled in the full-time B.Ed. program of the University of Botswana. One advantage in using such a sample is that, though small, the sample came from each part of Botswana providing us with a relatively national perspective on primary school toilets. Another advantage was that, as in-service primary school teachers on study leave, the respondents had served for over 8 years prior to coming to the university; a period we believe helped them in formulating their views on the state of the toilets in their schools. For ethical reasons arising from the sensitivity of participants’ views, we kept the names of the participants and the schools anonymous; and participation was voluntary.

Data Collection

The questionnaire was distributed to all forty-three (43) in-service teachers. All 43 copies of the questionnaire were completed and returned.

Data Analysis and Findings

Content analysis (Cohen, Manion & Morrison, 2007) was conducted on the teachers' responses which formed the sole unit of analysis. A key outcome of the analysis was the insights that informed the improvements that can be made. From the analysis, two themes emerged pertaining to *the adequacy of toilet facilities and resources*, on the one hand; and *the adequacy of administrative and maintenance arrangements* (to assure health, safety and privacy of school toilets), on the other. The next section presents responses on each of these themes.

RESULTS

Adequacy of Toilet Facilities and Resources

All respondents reported that in the schools they taught before joining the university there were both pit latrines and water system (flush) toilets. According to these respondents, such an arrangement overcame the erratic water situation affecting many parts of Botswana. However, responses indicated that flush toilets remained locked due to frequent damage by learners themselves and/or due to lack of maintenance; and that, as a result pupils resorted to utilizing the surrounding bushes for their convenience especially in between lessons.

Respondents reported a roughly equal number of toilet blocks for both girls and boys in almost all the schools. Responses show that the toilet-to-learner ratio varies from 1:4 in Kgalagadi District to 1:106 in Kweneng District. As a result, three (3) respondents from Kweneng reported that at tea-break children queue to use the limited toilets. A quick sample of responses by school location below indicates that the inadequate state of toilet resources and facilities is widespread:

- *School sanitation is poor as the toilets are not enough and they are not clean. When it rains, pit latrines over-flow with worms coming out of seats* (teacher from Kweneng).
- *Sometimes there is no water in the toilets and pupils will be forced to use the school yard to relieve themselves, some being closed, because they have not been maintained* (teacher from Central District).
- *Most toilets are not working. They are being attended to by the council men. But they take a long time when incidences are reported. Children also contribute to the damages* (teacher from Gaborone City Council).
- *Toilets are not in good condition at all, no maintenance and as a result not good to be used by learners* (teacher from Kgalagadi).

Under adequacy of resources, respondents considered the availability of water, urinals (for boys) and sanitary bins (in girls' toilets), toilet paper, soap (and other cleaning detergents), wash basins, and toilet brushes. Only ten (10) teachers out of the forty three (43) said toilet paper was

supplied in their schools. However, twenty six (26) said the supply was only for staff toilets. Only four (4) reported that soap for hand washing is provided albeit for staff toilets only. Toilet brushes were reported available in teachers' toilets and in very few of children's toilets. Only six (6) teachers said sanitary bins are available in the schools they taught in. On the lack of sanitary bins, one teacher explained that the expectation was that the girls were to throw their used sanitary towels in pit latrines.

The inadequacy of resources resonates in the three responses sampled illustrating the dire state of resources in school sanitation services:

- *There are no materials like sanitary bins and soap for washing hands* (teacher from Boteti East)
- *There is shortage of urinals, boys mess toilets* (teacher from South East).
- *Pupils are not supplied with toilet paper, it puts them in danger of not wiping their bumps [sic], there is no soap hence washing of their hands is not satisfactory* (teacher from North East).

Administrative and Maintenance Arrangements

Regarding toilet cleaning, teachers lamented that there was no indication that toilets ever got cleaned properly, if at all cleaning did take place as the three sampled respondents below indicate:

- *Pupils are not using water toilets due to water shortage in the district, toilets not good for use, they are not cleaned as expected, can cause problems (diseases) to pupils* (teacher from Ghanzi).
- *Water system toilets are available in school but they are always locked since there is no water and the council take a long time to provide toilet papers* (teacher from Central).
- *The school has only one GDA (cleaner) who cleans all the toilets for both students and staff. Most of the students' toilets is (sic) pit latrines which are difficult to clean easily especially being used by children* (teacher from North East).

Respondents were asked to cite a key issue associated with toilets in the school they taught in prior to joining the university. Two (2) respondents (from schools in Ghanzi and Central Districts) did not respond. However, contrary to our expectation of complaints about inadequacies, there were three (3) voices of encouragement pertaining to efforts made to improve the state of the school toilets and it is necessary to report these voices verbatim: – one from Kgalagadi District said that because *'the toilets were about full [and] the flushing system toilets were built'*; another respondent from Central District said *'the pit latrines were demolished because they were not in good condition'*; and the third from a school in the South East District said *'the pit latrines are in a good state; the toilet seats are designed for young children. The problem is with the water system toilets... they are not working at all'*. These are indications therefore that there are efforts being made, however far in between, to respond to poor school toilets. Unfortunately, flush toilets seem to create bigger administrative problems. For example, a respondent from a school in Central District: *'when there was no water in flush toilets, which is the prevailing situation in most schools, children relieved themselves around the school yard'*. In contrast, the rest of the respondents (39 in total) named one problem or another pertaining to the

inadequacies of the school toilets. A large number said the toilets were unhealthy and unhygienic as shown by such responses as:

blocked as students use hard paper, stones, tins and sticks / no toilet paper / they are not used often / no boy's urinals so the boy's urinate on the floor or on the walls / no sanitary bins for girls / in need of repair, etc.

There is noticeable desperation in the words of one teacher from a Kweneng school:

The toilets are not cared for and there are no cleaning chemicals and this can spread disease to children. The council even made the school to use the toilets that have long been discarded/not in use, they had cracks from the roof down the toilets.

There were respondents who felt the toilets were extremely unsafe for children e.g. one respondent said snakes were the problem: *the school is located in a rocky area where snakes are common in school toilets*. Another teacher from the same area said that *'the toilets are full, have snakes, are bushy and oversized for small children*. The bushy and isolated location of school toilets is corroborated by Silo (2011), who provided graphic representations in colour pictures of school toilets. In what appears like an exaggeration, one teacher from a school in Central District in graphic detail said *they [the toilets] are overflowing with worms coming out to the seats'*. Safety was also linked to the distance of the toilet block from the classrooms. For example, in the opinion of one from South East District the toilets were *'too far away from the classroom and so children fear going into them*. Lack of safety echoes in another response claiming that the available toilets were *'unsuitable for very small children in Standard 1 and 2'* because they were designed for bigger children. A respondent from a school in Kgalagadi District said this problem led to *'Standard 1 and 2 children sit on the floor to pass urine and defecate'*. Toilets were also reported as lacking in privacy because they were *'too few'* and *'too congested at break-time'* while others *'have no doors'*, some of which were damaged *'due to [student] vandalism'*. Where toilet paper is provided by the school, as reported by three (3) respondents from schools in South East, Kweneng and Ghanzi, children were denied privacy when toilet paper is given to teachers to *'issue [toilet paper] to children in public view of others when they want to use the toilet'*. Resonating across all the responses is the view that the school toilet problems were specifically caused by administrative shortcomings. For example, when asked who cleans the school toilets, all 43 respondents reported that their school employed *'a General Duty Assistant'* (GDA). In one case of a school in Ngamiland, the respondent added that the GDA in the school was also assisted by the students using a cleaning rota. However, the respondent lamented the lack of adequate supervision:

Only pupils follow the cleaning rota with the cleaner in the absence of teachers to supervise ...Actually students' needs are not met because no one seems to care'.

In the opinion of all the 43 respondents, school toilet cleaning arrangements were often inadequate. For instance a respondent from Boteti East in a school of about 360 children and 15 teachers found the use of a single GDA inadequate:

The school has one GDA who cleans all the toilets for both students and staff; most of the students' toilets are pit latrines which are difficult to clean easily especially when used by children.

This observation is echoed by a respondent from a school in the North West who noted that cleaning school toilets was selective in that *'the cleaner only cleans flush toilets...pit latrines are always dirty'*. A perfect case on the inadequacies of toilet cleaning arrangements put in place at the various schools is the respondent from a school in the South East District with a population of 890 children, 25 teachers, and 16 student toilets. In the view of this respondent, because of such a large school population, toilets become dirty frequently and *'need frequent cleaning but the cleaners do not want to do that!'*

Regarding maintenance, complaints resonated around the advanced age of the toilet buildings and the failure by local councils to respond promptly when reports are sent to them. For example, from Boteti, a respondent complained that *'the toilets are old and have not been renovated since they were built in the 80's/90's'*. From Central District, a respondent echoed similar sentiments adding that *'they smell a lot'*; while another one from the same area described the state of school toilet blocks as *'dilapidated and not conducive for use'*. The strongest views were those linked to student populations in the school and requiring administrative action. With 300 girls and 200 boys, two respondents from Southern District and Central District respectively felt that six (6) pit latrines were not adequate. In the words of another respondent from a school in Central District, *'it is high time toilets are built basing on the ratio of pupil population for effective use and health reasons'*. The next section discusses these findings in light of child development.

DISCUSSION

This study links children's learning to the concept of a health-promoting school by focusing on the school toilet. As noted by St. Leger (1999), school toilets are among the key components of the concept of a health-promoting school. In our view this is because access to clean and safe toilets throughout the day ensures that learners feel better about themselves enabling them to get along better with their school work as well as with their peers and teachers. Such learners are also more likely to attend school more regularly and realise more scholastic success and, as a result, are more likely to complete school.

In the context of Botswana, all primary schools are soon preparing to admit pre-school children for the first time; a development that will exert additional demands on the number and quality of existing school toilets. For example, the very young entrants will require clean and safe toilets so that they develop acceptable toilet habits early. Specific to pre-school age groups, is toilet training that enables children to become independent toilet users able to avoid continence accidents by remaining dry (Millei & Imre, 2015). The inadequacies recounted in this study pertaining to toilet paper, wash basins, soap and poor maintenance will render school toilets unhygienic resulting in poor learning (St. Leger, 1999). Additionally, this study heard teachers reporting inadequacies in toilet-to-learner ratios across the schools studied. There is a need for a standard ratio across primary schools – the one suggested by Jordanova *et al* (2015) is thirty 30 students per toilet is quite appealing. Given that personal privacy and safety are crucial aspects of the social development of a child, the arrival of pre-scholars in a school previously meant

exclusively for older children must be interpreted as a call for additional age-appropriate school toilets.

With older learners more age- and gender-specific toilet needs arise. For example, some of the teachers in the study voiced learners' objection to the practice of publicly issuing toilet paper in front of their peers which learners feel violates personal privacy and dignity. Though not raised by the teachers in this study, menstrual hygiene is a specific need of girls in the higher classes of the primary school demanding open access to clean school toilets that assure privacy throughout the day. Thus with such older learners the focus is on promoting hygiene (e.g. hand-washing), privacy (e.g. assuring lockable doors), and respect for users (e.g. by condemning bullying, vandalism) (Vernon, Lundblad & Hellstram, 2003). Our findings are indicating that there is a need for catering to such specific needs in Botswana primary schools. There is also a need for increased safety in and around the toilet blocks, a task the schools and the local councils must take on. Additionally, the use of common toilets affects the well-being and human dignity of older boys and girls thereby negatively impacting on attendance, learning and performance. For instance Birdsall *et al.* (2005) reported that lack of separate latrines for boys and girls forces girls to leave school. Fortunately our sample reported separate toilets for boys and girls in all cases.

One of the teachers in the study in Gaborone school complained about their school *'having a big challenge of litter; [from] people who sell outside the school, by the gate'*. This rather unexpected response echoes Silo's (2011) study that found that in their effort to infuse environmental education into the school curriculum, teachers excluded school toilets but focussed exclusively on waste management. In practice therefore a major administrative problem in many schools in Botswana are the inadequate arrangements made for monitoring and maintaining toilets because resources are expended on litter management. Thus the local councils were reported to be failing in their responsibility to provide maintenance and supplies. Interestingly, while toilet inadequacies are quite a concern across all these schools, staff toilets are not affected. For instance, respondents reported that staff toilets do have toilet paper and in some cases sanitary bins and soap for washing hands – a privilege not extended to student's toilets. A suggestion would be to increase the involvement of the whole school community so as to fight such inequities in resource distribution. Nordin (2016) suggests explicit training and reports a study that showed such training gave teachers a clearer understanding of their purpose and role in health education by developing their professional identity in the schools and also provided them with new methodological tools to address health issues in the curriculum; and that by participating in training related to health promotion and health education, teachers were more likely to actively participate in health promotion projects, and that their approach to health education was more extensive and comprehensive.

In our view, as victims of unsafe and poorly resourced school toilets, learners are powerless to effect change without the support of the rest of the school community including the teachers such as those whose views were heard in this study. Indications are that teachers are aware that the inadequacies they voiced are affecting children's health and learning.

CONCLUSION AND IMPLICATIONS

We conclude by acknowledging two main weaknesses in this study. One of these is the small sample of teachers used. Secondly, teachers are only a section of the school community and the ideal should have been to include cleaners and school management as well. However, this paper

has extracted from teachers' voices fundamental insights for improving school toilets which guided the development of the six-point checklist below. The voices indicate in a majority of cases:

- That the current state of school toilets is injurious to children's health and wellness
- That as part of their learning experiences, improvements are urgently needed.

We use the findings to produce recommendations (see table 1) below to assure child-friendly school toilets.

Table 1: The 6-point check-list of recommendations for school toilets

Problem reported	Recommendation
1. Lack of privacy [e.g. congested at break; toilet paper given in class to the user as needed]	<ul style="list-style-type: none"> • Assure that toilet has a door that locks easily and properly from the inside • Allow access to toilets throughout the day e.g. allow 5 min. between lessons for toilet break • Establish a <i>Code of Conduct in the Toilets</i>
2. Lack of safety [e.g. report of snakes]	<ul style="list-style-type: none"> • That the toilets are suitable for the range of anticipated users with adequate lighting, fixtures and fittings.
3. Lack of hygiene [e.g. not age appropriate so the little ones mess the floor]	<ul style="list-style-type: none"> • Effective toilet cleaning each school day. • Provide liquid soap and toilet tissue, at a convenient height. • Provide sanitary bins in girls' toilets • Ensure toilets for boys have urinals
4. Lack of commitment [e.g. reports of vandalism]	<ul style="list-style-type: none"> • Provide active support for well-maintained, clean, private and safe toilets throughout the school day
5. Lack of supervision [e.g. absence of a rota]	<ul style="list-style-type: none"> • A weekly rota for staff to check toilets and surroundings • Train monitors to supervise the toilets at break and lunchtimes • Actively involve each user in reporting deficiencies or problems
6. Lack of maintenance [e.g. late response by local councils to needed repairs]	<ul style="list-style-type: none"> • Deal promptly with problems reported by the learners • Involve the whole school community – management, staff, learners, and cleaning staff.

Lastly, we note that on their own learners are powerless to change the poor state of school toilets recounted by their teachers in this study. Ironically, personal responsibility over hygiene is a vital component of growing up if risks to personal health and wellness are to be minimized. We hope that this study contributes to the quest for achieving adequate school toilets.

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ⁱ **Daniel Kasule** is an Associate Professor in Language Education at the University of Botswana. His area of interest is literacy and classroom second language teaching. He has published widely on this subject and various aspects of applied linguistics.

ⁱⁱ **Nthalivi Silo** is a Senior Lecturer in Environmental and Sustainability Education in the Primary Education department of the University of Botswana. Her area of interest is in curriculum issues in environmental and sustainability education. She regularly works with schools on environmental related issues. She is a member of the Southern African Association of Environmental Education (EEASA) of which she is the editor of the association's bulletin and a reviewer of the association's journal articles. She is also a member of the UNESCO reference group that is working on developing materials on mainstreaming environmental sustainability issues in the school curriculum.

ⁱⁱⁱ **Grace Tshegofatso Seetso** holds a Master's Degree in Primary Education and is a lecturer in Early Childhood Education (ECE) at the University of Botswana. She has also worked as Primary school teacher, ECE lecturer at a teacher training college and an ECE officer at the Ministry of Education.